CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

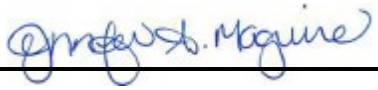
Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Lori Mitchell

SUBJECT: **Existing Single-Family Building Reach Code**

DATE: September 4, 2025

Approved  Date: 9/4/25

SUPPLEMENTAL

REASON FOR SUPPLEMENTAL

The Existing Single-Family Building Reach Code item for City Council consideration is time sensitive given the recent passage of Assembly Bill 130 as well as the City's interest in having the effective date match with the 2025 building code. Due to these time constraints, some of the City's public engagement that occurred on this item happened after the publishing date of the initial City Council memorandum. This supplemental memorandum summarizes the public engagement completed between July 23, 2025, through August 21, 2025, and feedback received. It also provides a summary of information known to date regarding other jurisdiction's efforts related to existing building reach codes and exception details for lower-income homeowners.

BACKGROUND

Climate Smart staff hosted five public webinars on the existing single-family building reach code: Wednesday, July 23 at 9:00 a.m.; Wednesday, July 23 at 6:00 p.m.; Thursday, July 24 at 1:00 p.m.; Monday, August 18 at 6:00 p.m.; and Thursday, August 21 at 6:00 p.m. To promote the webinars, City staff sent email notices to the City's building contractor contact list and to the Climate Smart email notification list, which includes neighborhood associations, developers, and San José-based community organizations and business groups (e.g., Santa Clara County Realtors Association), reaching a total of over 4,000 email addresses. City staff also promoted the webinars on the Climate Smart Instagram and Facebook websites, as well as in the City's Climate Smart e-newsletter and building reach code webpage. A total of 70 attendees were present at the five webinars.

City staff briefed the Planning, Building, and Code Enforcement's Developer's Roundtable on the proposed reach code at the July 31, 2025, regular meeting. This

meeting includes a stakeholder list of over 300 people who are actively involved in local development and construction.

In addition, City staff met directly with representatives from the Santa Clara County Realtors Association to address their constituents' questions about the proposed reach code and promoted a virtual and in-person regional event on reach codes geared towards contractors and covering both Santa Clara and San Mateo counties. Over 80 people attended the regional event, which included a mixture of contractors and representatives from local jurisdictions.

ANALYSIS

During the five public webinars and various stakeholder meetings, participants had questions on the proposed reach code including: the status and impact of Bay Area Air District Rules, the City's pathway to compliance with Assembly Bill 130, possibility for inclusion of additional reach code requirements (e.g., EV charging infrastructure reach code readoption, prewiring for EV charging in new construction, new existing commercial), reach code exceptions and alignment with Bay Area Air District Rules exceptions, the application of the building reach code to specific upgrade projects, and costs related to the proposed reach code. City staff responded to questions during the webinars and meetings, and developed a Frequently Asked Questions document (see Attachment A). Staff posted the Frequently Asked Questions on the City's Reach Code webpage and continues to update it as needed to address additional questions received.

Overall, there was general stakeholder support for the City's proposed reach code, but clear resident concerns regarding the communities' familiarity with and cost to implement the broader Bay Area Air District Rules coming into effect beginning in 2027 and the need for ongoing incentives to support electrification upgrades. The Energy Department will propose recommendations for rebates as part of its programs roadmap and continue to conduct public education and outreach on available building electrification rebates and incentives. Staff will continue to look for opportunities to help the community and workers prepare for the Bay Area Air District Rules.

To address community concerns about a disproportionate impact of the reach code requirements on lower-income homeowners, staff updated the proposed reach code to include an exception for homeowners whose household income is up to 100 percent of Area Median Income.

City staff are aware of several other cities, including San Francisco, Sunnyvale, and Mountain View, which have proposed or are planning to propose building reach codes for existing buildings. Attachment B summarizes information to-date on the status of existing buildings reach codes in other California jurisdictions.

If the proposed reach code is approved by City Council, the Energy Department will coordinate with the Planning, Building, and Code Enforcement Department to support reach code implementation. The Energy Department will also coordinate with the Housing Department to share information with impacted residents and programs available to provide education, share resources, and answer questions throughout reach code implementation.

/s/
LORI MITCHELL
Director, Energy Department

For questions, please contact Julie Benabente, Deputy Director, Energy Department at julie.benabente@sanjoseca.gov.

ATTACHMENTS
A – 2025 Existing Single-Family Building Reach Code Frequently Asked Questions
B – Existing Building Reach Code Status in Other Jurisdictions

City of San José
2025 Existing Single-Family Building Reach Code
Frequently Asked Questions

Incentives

1. **Are there incentives to cover the upfront incremental cost of the AC to Heat Pump option?**

   Yes, San José Clean Energy (SJCE) residential customers can access $2,500 to $3,500* in rebates from SJCE to install high-efficiency heat pump HVAC systems in a single-family home. If they install a heat pump, they can also get rebates for other electrical upgrades, including panel upgrades, attic insulation, and prewiring for future EV charger, dryer, and cooktop circuits. The City Council approved a budget of $2.675M for Fiscal Year (FY) 2025-2026 EcoHome Rebate, which could fund an est. 590 heat pump HVACs/ FY at this funding level. In 2024, residents pulled 1,213 permits for ACs. The Energy Department will seek approval for FY 2026-2027 funding in May 2026.

   There are also up to $4,000 in additional incentives available (as of July 2025) for residential heat pump HVAC installations in San José via the statewide TECH Clean CA program, though this funding could run out by the end of 2025. New funding for heat pump HVAC installations is released through TECH periodically. The state's HEEHRA program providing $4,000-8,000 to income-qualified Californians for heat pump HVAC systems is expected to re-open before the end of 2025.

   The incremental upfront cost of the AC to Heat Pump requirement is estimated at $652-$1,670 for the average installation. However, EcoHome Rebate requires installing a high-efficiency heat pump (SEER 17 or greater, SEER2 16 or greater, or inverter/variable speed) that results in an average incremental cost of around $3,600. **While the availability of rebates is not guaranteed on an ongoing basis, currently available rebates are able to cover the full amount of these estimated incremental upfront costs**.

   In addition, heat pump HVACs are estimated to provide first year and lifecycle utility bill savings. Residential SJCE customers also qualify for the EcoHome Payment Plan, which provides zero interest loans for heat pump installations that are repaid on-bill. Loan terms are for 2, 3, or 5 years, up to $5,000.

   *The Energy Department may lower incentive levels for heat pump HVACs in fall 2025 due to high program uptake, market conditions, and to match incentive levels of nearby utilities.

2. **What are the steps and the timeline to obtain an EcoHome rebate?**
   EcoHome steps/timing are as follows:
   - Customer applies to reserve incentives before installation begins
   - SJCE reviews/approves application within 3 days
   - Customer installs equipment
   - Once installed and inspected (final permit issued), the customer submits a claim to SJCE with documentation. They can elect to be paid the rebate directly or have it go to their contractor. It takes us up to 7 days to review and approve claims, and up to 7 days for checks to be received by customers. Customers can also elect to receive an instantaneous Venmo or PayPal payment for their rebate

   If the installation was an emergency replacement, customers must reach out before applying to inform program staff of the situation and then apply for a reservation.

3. **Are there incentives to cover the upfront costs of the electric-ready reach code requirement?**
   Customers cannot access the rebates for prewiring done alone (i.e. without a heat pump HVAC system install). The electric-ready requirement may range in upfront costs from approximately $150 per appliance for projects already installing new circuits and with ample breaker slots to up to $1,000 per appliance if they need to run a dedicated circuit or conduit as a result of the requirements.

Cost

4. **What are the various energy efficiency measures, and their associated costs, that could meet the proposed reach code's AC to Heat Pump requirement?**
   Additional energy efficiency measures may include fan efficacy, air sealing, and attic insulation and range in cost from $600 - $7,500 based on the existing configuration and scope of the planned upgrade.

5. **What are the operational cost differences between running a gas furnace and a heat pump HVAC in the winter? Likewise between a gas water heater and a heat pump?**
   According to analysis, Bill Impacts of Home Electrification Across the Bay Area, completed by Peninsula Clean Energy and Silicon Valley Clean Energy, operating a standard efficiency heat pump HVAC instead of a gas furnace and AC can save up to $311 per year. Further details on the methodology, results of various packages, and differences between the cost-effectiveness studies can be found in the analysis.

   The proposed building reach code does not require any change out of the gas to heat pump water heater.

6. **Will this create a cost burden for lower-income residents?**
   To address concerns about a disproportionate impact of the reach code requirements on lower-income homeowners, staff updated the proposed reach code to include an exception for homeowners who earn up to 100 percent of Area Median Income. Staff will also partner with other Departments and organizations to educate lower-income residents on available incentives and financing options.

AC to Heat Pump Details

7. **Why is the reach code's "AC to Heat Pump" requirement triggered by an air conditioning (AC) unit replacement and not a furnace replacement?**
   The AC to Heat Pump requirement is triggered by an AC replacement because there are two scenarios of furnace replacements:
   - When there is no AC present - heat pumps (which offer both heating and cooling in one unit) are much more expensive (+$10k) than a like-for-like furnace replacement.
   - When there is AC present – incentivizing a heat pump would either be redundant with the AC, or require replacement of the AC too, which may be premature, so requiring a heat pump would be federally pre-emptive (i.e. not legally viable)

   Given these, it would only make sense to trigger the requirement on an AC replacement. The best time for households to switch to a heat pump is when they need to replace their AC, not their furnace. Heat pumps can easily replace central AC units without requiring electrical upgrades since ACs are electric and a heat pump HVAC (which provides both cooling and heating) are generally more energy-efficient than an AC.

8. **What does "additional energy efficiency measures" mean? Can you provide the full list of examples?**
   For systems where the existing ductwork will remain, the reach measures above the state code are prescriptively:
   - Attic insulation
   - Refrigerant charge verification
   - Air sealing at the ceiling plane
   - High efficacy fan

   For systems where the ductwork is newly installed or being replaced, the reach measures above the state code are prescriptively:
   - R-8 duct insulation
   - Refrigerant charge verification
   - High efficacy fan

9. **Does an existing natural gas furnace have to be removed if I install a heat pump HVAC system?**
   No, the proposed reach code ordinance doesn't require removal of an existing natural

gas furnace even if you install a heat pump HVAC. The gas line could be capped with the existing gas furnace equipment being nonfunctional except being used for air handler. Or, the gas furnace could be used as backup heating system controlled to operate if the heat pump cannot maintain indoor comfort. However, for San José's moderate climate, the dual fuel system is highly unlikely to be needed.

10. **If my furnace goes out during the winter, won't this create issues with trying to replace quickly? I'm concerned I will be without heat for a prolonged period of time.**
    This reach code requirement is only triggered when space cooling (AC) is being added or replaced. This code would not apply to the replacement of an existing gas furnace.

11. **If a homeowner wants to add a bedroom (within 3 feet from the natural gas furnace), does it mean they must get rid of the existing natural gas furnace and AC and convert it to a heat pump HVAC system?**
    No, the AC to heat pump component in the proposed reach code only applies when *an AC unit* is being replaced or newly installed.

Electric-Ready Details

12. **What does "electric-ready" mean? Does that requirement apply to the room or the whole house?**
    Electric-ready means adding some electrical infrastructure (e.g., circuits, conduits, reserved breakers), depending on the whether it is a stove/cooktop, dryer, or water heater, so that the gas appliance is ready to be converted to an electric appliance in the future. In a high-level summary, the electric-ready components of the proposed reach code apply only to gas ranges/cooktops, dryers, or water heaters as follows (please see section 24.12.500 of the proposed ordinance for details):
    - Range trigger
      - Where branch circuits or receptacles are added or altered in a kitchen and the work requires an electrical permit
    - Dryer trigger
      - Where a branch circuit is added or altered within three (3) feet of a gas or propane clothes dryer and the work requires an electrical permit
    - Water heater trigger
      - If wall framing is removed or replaced within three (3) feet of a gas or propane water heating appliance, space suitable for the future installation of a heat pump water heater (HPWH) shall be provided, or
      - Where branch circuits are altered or added within three (3) feet of an existing gas or propane water heater or within 10 feet of the designated future location of a heat pump water heater and the work requires an electrical permit

13. What qualifies as an "alteration" or "addition"?

An "addition" is any change to a building that increases conditioned floor area and conditioned volume. See also "newly conditioned space." Addition is also any change that increases the floor area and volume of an unconditioned building of an occupancy group or type regulated by Part 6 of the building code. Addition is also any change that increases the illuminated area of an outdoor lighting application regulated by Part 6 of the building code.

An "alteration" is any change to a building's water-heating system, space-conditioning system, lighting system, electrical power distribution system, or envelope that is not an addition. Alteration is also any change that is regulated by Part 6 of the building code 1) to an outdoor lighting system that is not an addition; 2) to signs located either indoors or outdoors; and 3) to a covered process that is not an addition.

14. When would the need for an electrical permit for an addition or alteration constitute an exemption to the proposed reach code's electric-ready requirement? Can you elaborate with example?

If the proposed reach code's electric-ready requirement would trigger an electrical permit that would not have otherwise been required for the planned alteration or addition project, then the electrical permit exemption would apply and the electric-ready components would not need to be met. For most single-family additions, an electrical permit would likely already apply. However, there may be some alteration projects when the exemption would apply. For example, a solely like-for-like replacement of an existing gas water heater or gas furnace would generally not trigger an electrical permit and therefore the electric-ready component of the proposed reach code would not apply to that project.

15. When would a like-for-like gas appliance replacement trigger the electric-ready requirements in the proposed reach code?

A solely like-for-like replacement of an existing gas water heater or gas furnace would generally not trigger an electrical permit and therefore the electric-ready component of the proposed reach code would not apply to them.

16. Whole home electrification is too costly because of the need for electric panel/ service upgrades and their huge time and cost concerns. Why do we continue to incentivize all-electric construction?

City Council approved the City's climate action plan, Climate Smart San José (2018), and a carbon neutrality by 2030 goal (2021) – both have building electrification as a key strategy. While electricity used in buildings can come from low- or zero-emission sources, natural gas usage in buildings results in greenhouse gas emissions. In the City's latest communitywide greenhouse gas emissions inventory, building energy usage

continues to represent the second largest source (29 percent) of greenhouse gas emissions in San José.

In addition, home electrification can often be done without the need for panel/service upgrades through a variety of methods, including utilizing 120-volt appliances whenever possible. A case study on this in San Mateo County can be seen here.

Exceptions

17. What exceptions are included in the proposed reach code?

For the AC to Heat Pump component of the proposed reach code, the following exceptions would apply:

- old knob and tube wiring
- triggers panel upgrade (when standard AC would not)
- inaccessible attics/ducts
- asbestos disturbance

For the electric-ready component of the proposed reach code, the following exceptions would apply:

- Triggers electrical permit otherwise not required for the project
- Triggers electrical service and/or panel upgrades
- Triggers repairs and/or safety improvements
- New attached accessory dwelling units
- Mobile homes, manufactured housing

18. Does the proposed reach code provide an exception within the AC to Heat Pump requirement for space constraints at a site?

No, there are no space constraint exceptions in the proposed reach code because it applies to an existing AC replacement and heat pump systems have comparable space requirements as an AC, except if the heating load is 1-ton larger than the cooling load (which there is an exception for).

19. What PG&E requirements may a homeowner have to meet in order to accommodate this reach code?

None are expected since the proposed reach code includes exceptions if the reach requirements add scope that requires service capacity upgrades that must be performed in conjunction with PG&E.

20. If 3-inch diameter physical wires are needed for electrical service, what cost consideration is there for those whose electric lines run underground?

Electric-readiness provisions of the proposed reach code apply between the electrical service panel and the receptacle. The costs the City estimates for meeting the electric-

readiness provisions are for conduit run through an underfloor or attic, as well as an extra conductor to allow future 240V capability. The proposed reach code includes exceptions if the reach requirements add scope that requires service capacity upgrades that must be performed in conjunction with PG&E.

General/ Other

21. **Does the proposed reach code require the replacement of a natural gas water heater with a heat pump water heater?**
    No. The proposed reach code AC to Heat Pump component is only triggered by a planned AC installation or replacement. The electric-ready component of the proposed reach code, if applicable, would promote the future installation of a heat pump water heater but also does not *require* the transition to a heat pump water heater.

22. **Who determines if a panel upgrade is needed? If someone's appliances collectively operate at just a couple of amps under what the panel can sustain, is there a variance allowed or will someone in the City's Planning, Building, and Code Enforcement department determine that an upgrade is needed anyway?**
    Whether an electrical panel upgrade is needed is determined by building code and enforced during the project review process conducted by the City's Planning, Building, and Code Enforcement department. The proposed reach code includes exceptions if the AC to heat pump or electric-ready reach code requirements add scope that requires service capacity upgrades that must be performed in conjunction with PG&E.

23. **Won't the requirements of the proposed reach code result in the need to upgrade electrical panels or services, adding significant costs and time coordinating with PG&E?**
    For both the AC to Heat Pump and electric-ready components of the proposed reach code, projects are exempt from requirements if they would trigger the need for an electrical panel or service upgrade that would not be otherwise required by the planned project without the reach code requirements in place.

24. **What is the City doing to help the community prepare for the forthcoming Bay Area Air District Rules?**
    In 2023, the Bay Area Air District (formerly Bay Area Air Quality Management District) covering nine Bay Area counties, voted to ban the sale of water and space heaters that emit nitrogen oxides beginning in 2027 and 2029, respectively, to avoid health impacts due to air pollution exposure. Currently, the only zero-nitrogen oxide space and water heating appliances are electric. SJCE, in coordination with other Bay Area community choice aggregation programs, has agreed to the following to help our community prepare for Bay Area Air District Rules:
    - Develop and offer incentives

- Develop more financing tools for customers (e.g., more on-bill financing, interest rate buydown, loan loss reserve) to make more capital available,
- Support the workforce (e.g. extra incentives for the first four installs, coaching on how to sell heat pumps), and
- Explore having a regional rebate program implementer

You can find more information on the Bay Area Air District rulings here.

25. Do the proposed reach code exceptions align with exceptions in any exceptions allowed by the Bay Area Air District Rules?

Not exactly. The Bay Area Air District Rules specifically target natural gas furnaces, while the proposed reach code focuses on the HVAC system more holistically (and more specifically the cooling portion of the system). The proposed reach code exceptions stem more from cost effectiveness requirements rather than the Bay Area Air District Rules which focus on restricting nitrous oxide emissions.

26. How is the City trying to comply with AB 130 with the proposed reach code?

The AB 130 moratorium on updates to state and local residential building codes begins on October 1, 2025. If City Council approves the proposed reach code on September 9, 2025, the City will have to have a second City Council reading, allow for the 30-day period until a City ordinance is finalized, and submit the reach code to the Building Standards Commission and California Energy Commission for acceptance/ approval. This timing will allow the City to be able to better position itself to meet the AB 130 time restrictions while still pursuing additional AB 130 exceptions.

27. Can the City include additional reach code components into the proposed reach code?

The City can explore reach code updates for non-residential uses after Sept. 30, 2025, since these are not restricted by AB 130. In addition, the City can consider whether to pursue additional reach codes for residential buildings after Sept. 30, 2025, if the City believes they can be covered under an AB 130 exception. For example, if the City has a building reach code for new construction in place that it wants to readopt then that is an exception under AB 130.

28. Will the proposed reach code lead to unusable wiring for future electrification of appliances that are covered by the electric-ready component of the proposed reach code given that pre-wiring can be done incorrectly?

For all appliances covered under the proposed reach code, the ordinance stipulates minimum wire gauges that are designed to sufficiently serve appliances that require the highest levels of power for each appliance type which should help to reduce the likelihood of unusable wiring in the future.

29. Are there enough experienced contractors to install heat pump HVAC systems in San José?

There are many local contractors who can and have experience installing heat pump HVACs. The statewide TECH Clean California program lists 51 TECH certified heat pump HVAC contractors in San José or within an 8-mile radius of San José. San José Clean Energy's EcoHome Rebate program has had over 330 participating heat pump HVAC projects as of July 2025. SJCE publishes a directory of contractors who have installed at least three projects through EcoHome Rebate. As of July 2025, 25 local contractors have been listed on the EcoHome Network. It is always useful to have more trained and experienced heat pump HVAC installation contractors. To this end, Energy Department staff will be presenting its recommendations to support local electrification workforce development at the Sept. 9, 2025, City Council meeting.

30. Where/from whom did the idea for this specific reach code originate?

The City is consistently looking at how it can facilitate communitywide progress on its Climate Smart San José plan since City Council approval in 2018. Building reach codes have been a cost-effective policy option that the City has adopted since 2019. The proposed reach codes are built off of model building reach codes developed by the Bay Area Reach Codes and in conjunction with Silicon Valley Clean Energy and Peninsula Clean Energy, which serve the rest of Santa Clara County cities and San Mateo County cities respectively. In addition, several California cities have adopted reach codes for existing buildings in the 2022 building code cycle which helped to inform the development of future reach codes.

31. Are condominiums subjected to the proposed reach code?

Condominiums that are in residential buildings with two or less dwelling units or townhomes may be subject to the proposed reach code. Multi-family buildings are not subject to the proposed reach code.

Please email ClimateSmart@sanjoseca.gov with any questions. This document will be updated as needed on an ongoing basis to address additional question received.

Updated: August 28, 2025

Existing Building Reach Code Proposed/ Planned in 2025 Code Cycle		
Jurisdiction	**Requirement**	**Status**
Cupertino	Performance Margin Requirement[1]	Adopted; first reading Sept. 17, 2024; second reading/adopted Oct. 1, 2024; pending CEC approval.
Glendale	AC to Heat Pump[2]	First reading Sept. 9; second reading TBD
Menlo Park	AC to Heat Pump, electric-ready[3], FlexPath[4]	Adopted; approved first reading Aug. 12; second reading Aug. 26
Mountain View	AC to Heat Pump, electric-ready	Approved first reading Aug. 26; second reading Sept. 9
Ojai	FlexPath	Adopted; approved first reading Aug. 12; second reading Aug. 26
Palo Alto	AC to Heat Pump, electric-ready (kitchen remodel), FlexPath	First reading Sept. 8; second reading TBD
San Francisco	All Electric Major Renovations	Approved first reading July 29; second reading on Sept. 2
Sunnyvale	AC to Heat Pump, electric-ready	Adopted; approved first reading Aug. 12 and second reading Aug. 26

Existing Building Reach Code Adopted in the Previous (2022) Code Cycle			
Jurisdiction	**Requirement**	**Jurisdiction**	**Requirement**
Atherton	Electric-ready	Piedmont	FlexPath
Carlsbad	FlexPath	Portola Valley	Electric-ready
Corte Madera	FlexPath	San Anselmo	Electric-ready, FlexPath
Encinitas	FlexPath	Santa Cruz	FlexPath

[1] **Performance Margin Requirement** refers to exceeding the California Energy Code's baseline performance metrics. In Cupertino, new single-family homes must achieve an Energy Design Rating 1 (EDR1) margin of at least 9. Smaller homes between 625–1500 ft² must achieve a margin of 4, and there is no requirement for homes under 625 ft². Low-rise multifamily buildings must exceed the Source Energy metric by 9% or more, high-rise multifamily by 1% or more, and nonresidential buildings by 10% or more.

[2] **AC to Heat Pump** typically refers to allowing for either the installation of a heat pump heating, ventilation, and air conditioning (HVAC; which provides heating and cooling) OR additional energy efficiency measures along with a standard air conditioning (AC) installation at time of AC installation and/or replacement.

[3] **Electric-Ready** means adding some electrical infrastructure (e.g., circuits, conduits, reserved breakers), depending on the whether it is a stove/cooktop, dryer, or water heater, so that the gas appliance is ready to be converted to an electric appliance in the future.

[4] **FlexPath** is a flexible energy efficiency path that allows homeowners and contractors to select from a weighted menu of measures to achieve compliance. This affords them the opportunity to pick measures that best suit their plans and values. The approach consists of a target score and a menu of individual measures with points weighted by site energy savings. Applicants may select a set of measures that meet or exceed the target. For more information, see here.

Fairfax	Electric-ready, FlexPath	San Luis Obispo	Electric-ready, FlexPath
Marin County	FlexPath	San Rafael	FlexPath
Mountain View	Electric-ready		