



SUBJECT

Proposed 2023 Reach Code Updates

RECOMMENDATION

That the Planning Commission reviews and comments on the proposed updates to the 2023 Reach Code for development in the City of Hayward.

SUMMARY

Hayward's current Reach Code will expire on December 31, 2022. To continue the current requirements that prohibit or limit the use of natural gas in new buildings and to continue to require electric vehicle charging infrastructure beyond what is required in the State Building Code, a new ordinance must be adopted. This report presents a framework and considerations for a new Reach Code that may be adopted this year.

Staff is requesting feedback from the Planning Commission on the proposed Reach Code updates and will forward that feedback to Council for their consideration at a future meeting.

BACKGROUND

On March 3, 2020¹, Council adopted a local amendment to the 2019 California Building Code known as a Reach Code. The Reach Code ordinance as well as checklists for builders and developers are available on the City's website². The Code requires all new single-family homes and new low-rise multi-family buildings (up to 3 stories) to be all-electric. Non-residential and high-rise residential buildings can be either all-electric or mixed fuel (both electric and natural gas equipment). The Code also includes requirements for Electric Vehicle (EV) charging infrastructure. When Hayward's Reach Code was adopted in March 2020, there were already twenty-eight such codes adopted by local jurisdictions throughout California. In December 2021, Contra Costa County became the 54th local jurisdiction to adopt an electrification reach code.

The California Building Code is updated every three years. The 2019 California Building Code and Hayward's Reach Code will both expire on December 31, 2022. The 2022 CalGreen Code will take effect on January 1, 2023. In order to continue Hayward's current Reach Code requirements, a new Reach Code must be adopted this year to be effective along with the 2022 California Building Code in January 2023.

¹ <https://hayward.legistar.com/LegislationDetail.aspx?ID=4345454&GUID=25134FC7-B7A3-4060-955A-F7A30A27567A&Options=&Search=>

² <https://www.hayward-ca.gov/reach-code>

Staff is working closely with a Bay Area working group³ led by East Bay Community Energy (EBCE), Peninsula Clean Energy (PCE), Silicon Valley Clean Energy (SVCE), and their consultants to prepare Hayward's new Reach Code. The working group is developing model codes for local jurisdictions to consider. The draft model codes were used to develop preliminary considerations for Hayward's new Reach Code, which were presented to the Council Sustainability Committee (CSC) on March 14, 2022⁴. Following is a summary of the comments made by the CSC:

1. New Low Rise Residential Buildings – The CSC supported continuing the existing all-electric requirement for new Low Rise Residential Buildings.
2. New Accessory Dwelling Units – The CSC supported ending the current exemption for ADUs smaller than 400 square feet but asked about how it may impact the cost of building an ADU. A cost-effectiveness study including an analysis for an all-electric ADU should be available later this month.
3. New Non-residential & High-Rise Residential Buildings - The CSC supported staff's recommendation to remove the existing mixed-fuel pathway so that all new buildings would have to be all-electric. For new non-residential buildings, the Committee wants to allow some flexibility – especially for industrial uses.
4. Existing Buildings – The CSC supported prohibiting gas extensions in older homes, however, doing so may make it difficult to build smaller attached ADUs. Regarding extensions of gas lines in older existing industrial buildings, the CSC directed staff to consult with the business community.
5. End of Flow – The CSC supported the concept of ending the flow of gas by 2045 but asked about the difficulty of enforcing such a policy and questioned community acceptance.
6. Existing Residential – The CSC agreed Hayward should wait for the California Air Resources Board (CARB) or the Bay Area Air Quality Management District (BAAQMD) to enact a ban on the sale of gas appliances.
7. EV Charging Requirements – The CSC would like to see robust requirements but asked for more information about the costs of developing charging infrastructure.

On May 9, 2022⁵, the CSC considered a report with additional information regarding options for new non-residential buildings as well as alternatives and costs associated with EV charging requirements. Committee members provided the following comments:

- The Code should include limited exceptions that would allow gas for restaurants and life science-related industrial uses.
- EV charging is going to be in high demand in the future and the code should require significant charging capacity at multi-family properties.

³ <https://bayareareachcodes.org/>

⁴ <https://hayward.legistar.com/LegislationDetail.aspx?ID=5523060&GUID=4A5988AD-D820-4426-9F53-9CC938F9C94F&Options=&Search=>

⁵ <https://hayward.legistar.com/LegislationDetail.aspx?ID=5644449&GUID=373D251F-6874-4DC3-AF7B-299444A3DA9A&Options=&Search=>

DISCUSSION

Staff is seeking comments from the Commission regarding the development of the new Reach Code as it will be implemented and enforced as part of the development review process. Staff intends to incorporate the EV charging requirements into the parking regulations to help facilitate compliance review earlier in the process. Other components of the Reach Code will be enforced during the building permit plan check process. Staff would like the Commission's perspective on the Reach Code considering its impact on developers, the City's review of development proposals, and the City's overall strategy to address the climate crisis. The Reach Code will likely be included as one of many programs in the updated Climate Action Plan.

Staff recommends that items 4, 5 and 6 in the list above be deferred to the next code cycle as more research is needed to evaluate costs and equity implications. Staff is developing an ordinance that will address the following:

- New Low Rise Residential Buildings
- New Accessory Dwelling Units
- New Non-residential & High-Rise Residential Buildings
- EV Charging Requirements for New Construction

New Low Rise Residential Buildings – Staff recommends maintaining the current requirements so that all new single-family homes and all new low-rise multi-family buildings (up to three stories) must be designed and constructed as all-electric. This portion of the current reach code has been very successful in that new all-electric residential buildings are cheaper to construct and operate compared to those with gas.

New Accessory Dwelling Units – The current reach code exempts Accessory Dwelling Units (ADUs) less than 400 square feet, which means they can include natural gas appliances for water heating, space heating, etc. Smaller units were exempt primarily due to the extra space required for an electric heat pump water heater tank compared to gas-fired tankless water heater. While most cities' reach codes do not exempt any detached ADUs and the model reach code does not exempt small ADUs, staff is still researching this issue and will review the soon-to-be-released cost-effectiveness study for all-electric ADUs.

New Non-Residential and High-Rise Residential Buildings – The current Reach Code allows non-residential and high-rise residential buildings (four stories and taller) to be either all-electric or mixed-fuel. At the March 14 CSC meeting, staff recommended eliminating the mixed-fuel option. Hayward's Economic Development staff has also expressed support for the Reach Code and is interested in having exceptions – particularly for restaurants and life science-related industries. In response to this feedback, staff is continuing to research the best approach to incorporate flexibility and allow exceptions – potentially for certain industrial uses and restaurants.

Exceptions are also being explored in light of the California Environmental Quality Act (CEQA) and the goal to be carbon neutral by 2045. On April 20, 2022, the Bay Area Air Quality District Board of Directors adopted new thresholds of significance for use in environmental analyses prepared pursuant to CEQA. The thresholds are used to determine

when an environmental impact is considered “significant”. If an impact is considered significant and cannot be mitigated, then project is required to have an Environmental Impact Report prepared. While the previous thresholds were quantitative, such as a certain number of metric tons of carbon dioxide equivalent per year, the new thresholds are qualitative due to the state’s carbon neutrality goal. The new thresholds state that any new building must either:

1. Not include natural gas; or
2. Be consistent with a local Climate Action Plan (CAP).

The Reach Code can include exceptions for certain uses such as restaurants and certain industrial operations, however, in order for a project to avoid having a significant impact, Hayward’s CAP would need to identify a means for offsetting the greenhouse gas (GHG) emissions from the gas use by 2045. Staff is currently working with a consultant team on an update of the CAP and plans to find a way to allow some gas use while still maintaining a path toward carbon neutrality by 2045.

EV Charging – The EV charging requirements in the current Reach Code have been especially difficult for developers of affordable housing. Some recently approved affordable housing projects in Hayward have been completely exempted from the charging requirements due to concessions granted under the state’s Density Bonus law.

Attachment II is a glossary of terms related to EV charging. On March 14, the CSC requested more information about the costs to install EV charging infrastructure. Attachment III includes potential requirements as well as cost estimates.

While the new CalGreen code will require 40% of spaces to have Level 2 readiness, the new regional model code would require the remaining 60% of spaces to be Level 1 EV Ready. Staff is not recommending Level 1 chargers as an overnight charge providing 30 miles of range is not sufficient for many people. New EVs have large batteries that may make Level 1 charging obsolete in the next few years. Staff is recommending some combination of Level 2 charging readiness and Level 2 chargers.

As part of this project, cost estimates were provided (Attachment III) from a 2019 report⁶ prepared for Peninsula Clean Energy and Silicon Valley Clean Energy. The study analyzed the costs for a 60-unit multi-family project; a 150-unit multi-family project; and an office building with 60 parking spaces. The study considered the cost of electrical service upgrades, electrical panels and transformers and includes the following key findings:

- Costs [for EV charging] for new construction were significantly lower, at almost four times as much per spot compared to the retrofit scenario. This indicates that increasing Code requirements for charging infrastructure could potentially save significant amounts of money to building owners in the new construction context rather than waiting for tenants to become interested in electric vehicles, at which

⁶ https://bayareareachcodes.org/wp-content/uploads/2020/03/PCE_SCVE-EV-Infrastructure-Report-2019.11.05.pdf

point significant costs related to invasive demolition and electrical infrastructure replacement would be necessary.

- Transformer capacity limitations are not expected to occur very frequently and that even in the retrofit context most buildings should be able to meet the added load. For those that do not have significant capacity, utilizing lower power “Level 1” ports or load management may be promising options. However, transformer upgrades are more likely with the increased EV infrastructure requirements such as those for Level 2 charging.
- For larger new buildings in need of a second transformer and associated electrical infrastructure, the owner/developer would need to bear those costs estimated to be approximately \$50,000 (or significantly more in a retrofit context).
- Installing an EV Capable parking space means that wiring, etc. would need to be installed at later date. Installing an EV Ready space at the outset (installing a complete electrical circuit with wiring and circuit breakers) will achieve better economies of scale and avoid the overhead and time needed to hire an electrician. This includes the need for tenants to get approvals from building owner for an electrical wiring retrofit (as in the case of a condominium with a homeowners association). Similarly, installing charging equipment during new construction can be completed at a much lower cost than retrofitting later.

The requirements for EV charging infrastructure will increase the cost of construction; however, future residents or employees can benefit from the cost savings of operating an EV compared to a gasoline vehicle. In addition, significant savings can be realized when installing EV Capable and EV Ready circuits at the time of new construction as compared with the retrofit of an existing building or existing parking lot.

The key to keeping costs of EV charging low is the installation of Automatic Load Management Systems (ALMS), which manage electrical loads across one or more electric vehicle chargers, circuits, or panels, and share electrical capacity and/or automatically manage power at each connection point. This allows several cars to remain plugged in overnight, but not all cars would be charged at the same time.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority to *Confront Climate Crisis & Champion Environmental Justice* as included in the Strategic Roadmap adopted May 3, 2022. Specifically, this item is related to implementation of the following projects:

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| Project C1 | Ban natural gas in new residential buildings (Completed with the March 2020 adoption of the Reach Code.) |
| Project C2 | Require EV charging infrastructure in new construction (Completed with the March 2020 adoption of the Reach Code.) |
| Project C10 | Explore feasibility of banning natural gas in non-residential (commercial) buildings. |

ENVIRONMENTAL REVIEW

Staff anticipates the Reach Code, once finalized, will be found to be not a project under the requirements of the California Environmental Quality Act, together with related State CEQA Guidelines (collectively, “CEQA”) because it has no potential for resulting in a physical change to the environment. The Ordinance may also be exempt from CEQA under CEQA Guidelines section 15308, because it is a regulatory action for the protection of the environment.

PUBLIC CONTACT

The Bay Area working group hosted two workshops for building industry stakeholders and community members on February 15 and 16, 2022. Staff sent an email to 658 builders and developers to let them know about these workshops and the March 14 CSC meeting. At the February workshops, attendees were generally supportive of reach codes. Specific comments included:

- Automatic Load Management (for EV charging) is critical and still new, and more education is needed.
- Multi-family property owners said they do not want to be in the EV charging business. They requested that EV charging be required such that it is on the utility’s side of the electric meter.

In addition, in early 2022, staff reached out to six representatives of affordable housing developers and had phone conversations with three to review existing and potential EV charging requirements. Staff has conducted limited outreach for this first discussion on the 2023 Reach Code. Upon direction from the CSC, staff will continue to seek input from development and business stakeholders. Specifically, staff intends to engage with the Chamber of Commerce and industrial property developers before returning to the CSC with more refined recommendations.

On May 6, 2022, staff presented to the Hayward Chamber of Commerce’s Government Relations Committee. The Chamber members’ comments included:

- Questions about the capacity of the electrical grid and its ability to accommodate the increased load that will result from electrification.
- People still love to cook with gas.
- More direct outreach is needed to get the word out to business owners and multi-family property owners.

NEXT STEPS

Following feedback from the Planning Commission, staff will continue to work with the Bay Area working group and stakeholders to prepare a draft reach code ordinance for Council’s consideration. The following schedule is a tentative timeline for anticipated adoption of the 2023 Reach Code:

June 21, 2022	Council Work Session to consider draft Reach Code
July 11, 2022	Present draft Reach Code Ordinance to CSC

October 2022
January 2023

Council to consider adoption
Reach Code takes effect along with the 2022 CA Building Code

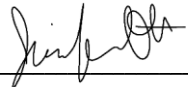
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