



DATE: December 17, 2024

TO: Mayor and City Council

FROM: Director of Public Works
Director of Development Services

SUBJECT: Electrification Reach Code: Adopt a Resolution Finding and Determining the Need for Adoption of Modifications to the 2022 California Building Standards Code; Introduce a Revised Electrification Reach Code Ordinance with Amendments Related to EV Charging; and Finding that the Action is Exempt from CEQA

RECOMMENDATION

That Council adopts a resolution (Attachment II) and introduces the revised Electrification Reach Code ordinance (Attachment III) to modify the California Green Building Standards Code. The ordinance includes amendments to the Off-Street Parking Regulations to modify the existing electric vehicle charging requirements.

SUMMARY

Hayward's current Reach Code took effect on January 1, 2023. The Reach Code ordinance modifies and goes beyond the State building code to require:

- All new non-residential buildings that include natural gas infrastructure, must be "electric ready", meaning they have the wiring, electrical capacity and space needed to be converted to an all-electric building in the future.
- All new buildings, and modifications to existing buildings resulting in new parking spaces, must have electric vehicle (EV) charging infrastructure above and beyond that required by the California Green Building Standards Code.

There are updated requirements in the California Green Building Standards Code (CalGreen) that took effect on July 1, 2024, including several related to EV charging infrastructure. This new CalGreen code, even with the updates, still requires less charging infrastructure than Hayward's current Reach Code.

In addition to incorporating the 2024 CalGreen amendments, staff recommends also incorporating the minor changes to EV charging requirements in the recently adopted 2025 CALGreen standards that will take effect on January 1, 2026. Including these standards in

the updated Reach Code would eliminate the need to update Hayward’s EV charging requirements again in 2025.

Council Sustainability Committee

This item was presented to the Council Sustainability Committee (CSC) on November 18, 2024¹, and was unanimously recommended to be presented to Council for adoption.

BACKGROUND

State law allows local jurisdictions to adopt ordinances that amend the California Building Standards Code. The ordinances are commonly referred to as reach codes. Out of approximately 540 cities and counties in California, more than sixty local governments have adopted reach codes to encourage or require all-electric construction as well as electric vehicle charging infrastructure. Hayward adopted its first Reach Code on March 3, 2020. Hayward’s current Reach Code was adopted on November 15, 2022² and was re-adopted on June 6, 2023³ with minor technical revisions. The purpose of the ordinance is to reduce the use of fossil fuels – both in buildings and in vehicles. The ordinance modifies CalGreen to require:

- a) All new residential buildings, including mixed-use buildings, must be all electric.
- b) All new non-residential buildings for which natural gas infrastructure is installed, must be “electric ready”, meaning they have the wiring, electrical capacity and space needed to be converted to an all-electric building in the future.
- c) All new buildings, and modifications to existing buildings resulting in new parking spaces, must have electric vehicle (EV) charging infrastructure above and beyond that required by the CalGreen Code.

As reported to the CSC on March 11, 2024⁴, staff is no longer enforcing the Reach Code requirements prohibiting installation of natural gas infrastructure in new residential construction (item ‘a’ above). This is in response to the Ninth Circuit Court of Appeals ruling on January 2, 2024, regarding the City of Berkeley’s gas ban. Item ‘b’ is still in effect.

The proposed amendments to the EV charging requirements were presented to the CSC on November 18, 2024. The CSC’s comments and questions were related to Table 1, Existing and Proposed EV Charging Requirements, (Attachment IV) and included:

- Has staff considered requiring more EV chargers? Specifically, the CSC suggested the possibility of requiring more EV charging for retail establishments, hotels, fitness centers, dance studios, churches, and childcare facilities.
- What is the difference in cost between an EV Ready parking space and an EV charger parking space?
- Could the City incentivize installation of chargers above and beyond the Reach Code minimums?
- How often do property owners voluntarily upgrade parking spaces from EV Ready to EVSE/EVCS (installing a charger)?

¹ <https://hayward.legistar.com/LegislationDetail.aspx?ID=7025106&GUID=A014847A-E80E-4F04-96E0-BAB42D3F3854&Options=&Search=>

² <https://hayward.legistar.com/LegislationDetail.aspx?ID=5936054&GUID=8FFD9DC8-3B84-4362-96C4-67C41B3FBED4&Options=&Search=>

³ <https://hayward.legistar.com/LegislationDetail.aspx?ID=6247758&GUID=10E0620B-A871-4725-B18F-696FBDAF87B6&Options=&Search=>

⁴ <https://hayward.legistar.com/LegislationDetail.aspx?ID=6569388&GUID=F29400E0-5305-4176-975C-D436CFF616DF&Options=&Search=>

Staff responded during the meeting that additional research and internal discussions would be needed and that the comments and questions can be addressed in the next Reach Code report, which will be presented to the CSC in the spring of 2025. Regarding the question of the cost to install an EV Ready parking space versus an EV charger parking space, staff has included additional information in the Economic Impact section of this report. The CSC voted unanimously to recommend that Council adopt an amended ordinance with the charging requirements listed in Attachment IV.

DISCUSSION

Given California's requirement that all new passenger vehicles be zero emission by 2035, the number of EVs on the road and the demand for EV charging both continue to increase. For this reason, the state is gradually increasing code requirements for EV charging infrastructure. The CalGreen code is updated every three years. The current code is the 2022 CalGreen, which is in effect from January 1, 2023, through December 31, 2025. The 2025 CalGreen Code will take effect in January 2026. The California Building Standards Commission also adopts minor amendments to CalGreen in the middle of each triannual cycle, which is called the "intervening code cycle". This year's intervening code amendments took effect on July 1, 2024, and include several related to EV charging requirements. Hayward is not required to have a Reach Code, but in order to have a Reach Code that meets the legal requirements of the California Building Standards Commission, it needs to be amended to incorporate the intervening cycle changes and must continue to require charging infrastructure that is equivalent to or more stringent than the state code.

In addition to ensuring consistency with the intervening code amendments, staff recommends also incorporating the minor changes to EV charging requirements in the recently adopted 2025 CalGreen standards that will take effect on January 1, 2026. Including the 2025 CalGreen standards in the updated Reach Code would eliminate the need to update Hayward's EV charging requirements again in 2025.

Most of the changes to the EV charging requirements in CalGreen are technical. The most significant changes that are relevant to Hayward's Reach Code are identified in Table 1 in Attachment IV. The table lists the existing CalGreen requirements (column 'B') and the upcoming CalGreen requirements (column 'C'). Column 'D' lists the current Reach Code requirements along with proposed amendments and column 'E' includes explanations of the effects of the proposed amendments. In the staff report to the CSC dated November 18, 2024, staff indicated that if the Reach Code is not updated, then Hayward's existing requirements listed in column D would not be enforceable.

Staff was recently advised that the existing Reach Code requirements are in fact still enforceable and would continue to be even if the Reach Code is not updated. However, staff recommends updating the Reach Code to avoid confusion in determining which provisions are more stringent between the Reach Code and CalGreen.

Other New CalGreen Requirements – Following are additional new requirements in the intervening CalGreen that must be incorporated into Hayward's Reach Code. The new code:

- Specifies receptacle types required.
- Specifies a minimum number of J1772 chargers. (The J1772 is the most common type of connector used for Level 2 charging in North America. It’s compatible with most EV models and is used for both at-home and public charging.)
- Multifamily:
 - Specifies requirements for assigned versus unassigned parking spaces, including metering to individual dwelling units.
- Non-residential:
 - Offers an alternative compliance pathway, the Power Allocation Method.
 - Requires medium and heavy-duty EV charging for off street loading spaces for office buildings and manufacturing facilities. The previous version of CalGreen only required this for warehouses, grocery stores, and retail stores.
- Existing Non-Residential:
 - Extends charging requirements to alterations and additions, including addition of solar photovoltaic systems.

ECONOMIC IMPACT

The Reach Code requirements for EV charging infrastructure do 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. For additions and alterations to existing buildings, compliance with EV charging requirements can significantly increase overall project costs. However, significant savings can be realized when installing EV charging infrastructure at the time of new construction as compared with the retrofit of an existing building or existing parking lot.

In response to the CSC’s question about the difference in cost between an EV Capable parking space and an EV charger parking space, staff prepared the following scenarios for a hypothetical 20,000 square-foot retail building that is required to have 89 parking spaces:

Table 2 - 2025 CalGreen		
Charging Required	# of EV Spaces	Cost
15% L2 Charger	14	\$288,201
5% L2 EV Capable	5	\$99,004
Total	19	\$387,205

Detail for Table 2:

Charging Required	# of EV Spaces	UpStream Cost per Space	DownStream Cost per Space	UpStream Costs	Downstream Cost	Total Cost
15% L2 Charger	14	\$17,281	\$3,305	\$241,931	\$46,270	\$288,201
5% L2 EV Capable	5	\$17,281	\$2,520	\$86,404	\$12,600	\$99,004
	19			\$328,335	\$58,870	\$387,205

Table 3 - Proposed Reach Code			Incremental Change	
Charging Required	# of EV Spaces	Cost	# of EV Spaces	Cost
20% L2 Charger	18	\$236,434	13	
30% L2 EV Capable	27	\$333,455	18	
Totals	45	\$569,889		\$182,684

Detail for Table 3:

Charging Required	# of EV Spaces	UpStream Cost per Space	DownStream Cost per Space	UpStream Costs	Downstream Cost	Total Cost
20% L2 Charger	18	\$9,830	\$3,305	\$176,944	\$59,490	\$236,434
30% L2 EV Capable	27	\$9,830	\$2,520	\$265,415	\$68,040	\$333,455
	45			\$442,359	\$127,530	\$569,889

Table 4 - If Proposed Reach Code Requirements were Increased			Incremental Change	
Charging Required	# of EV Spaces	Cost	# of EV Spaces	Cost
30% L2 Charger	27	\$374,721	9	
20% L2 EV Capable	18	\$249,814	-9	
Total	45	\$624,535		\$54,646

Detail for Table 4:

Charging Required	# of EV Spaces	UpStream Cost per Space	DownStream Cost per Space	UpStream Costs	Downstream Cost	Total Cost
30% L2 Charger	27	\$10,574	\$3,305	\$285,486	\$89,235	\$374,721
20% L2 EV Capable	18	\$10,574	\$2,520	\$190,324	\$59,490	\$249,814
				\$475,810	\$148,725	\$624,535

The above costs assume an EV subpanel is installed and include costs for transformers, feeders, direct billing, metering, trenching, switchgear and electrical room upgrades and do not include the cost of land, paving, etc. Costs for infrastructure upstream of the electric panel (electrical room, transformers, switchgear, etc.) are non-linear when considering the cost per parking space because there is shared infrastructure and cost increases tend to be incremental. While the incremental cost difference between Tables 3 and 4 is relatively small (\$54,646), staff recommends proceeding with the charging requirements in Table 3.

The additional charging requirements shown in Table 4 could be further explored next year when staff intends to conduct more robust engagement with developers.

FISCAL IMPACT

Updating the Reach Code with new EV charging requirements will not result in an impact to the General Fund. The amendments needed to keep the Hayward Reach Code consistent with CalGreen are fairly technical. Staff has been working with a consultant, TRC Companies, Inc., to prepare the updated Reach Code ordinance. The cost of the consultant's assistance is anticipated to be less than \$10,000 and will be paid from existing Environmental Services Division funds.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority to *Champion Climate Resilience & Environmental Justice*, and specifically relates to implementation of the following Project under that heading:

Reduce Greenhouse Gases and Dependency on Fossil Fuels:

Project CP1: Implement Year 1 Programs from the adopted GHG Roadmap (Climate Action Plan).

SUSTAINABILITY FEATURES

Convenient and reliable EV charging is a necessary part of our transition to the use of electric vehicles, which will be a key strategy for meeting the City's long term GHG reduction goals. These goals include:

- 30% below 2005 levels by 2025
- 55% below 2005 levels by 2030
- work with the community to develop a plan that may result in the reduction of community based GHG emissions to achieve carbon neutrality by 2045

ENVIRONMENTAL REVIEW

Adoption of the revised Electrification Reach Code is 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. In the event that this Ordinance is found to be a project under CEQA, it is subject to the CEQA exemption contained in CEQA Guidelines section 15061(b)(3) because it can be seen with certainty to have no possibility that the action approved may have a significant effect on the environment. CEQA applies only to actions that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. In this circumstance, the proposed action would have no or only a de minimis effect on the environment. The Ordinance is also exempt from CEQA under CEQA Guidelines section 15308, because it is a regulatory action for the protection of the environment.

PUBLIC CONTACT

Prior to the CSC meeting, staff sent an email to 3,258 builders and developers to let them know about the proposed amendments. Staff did not receive any comments prior to the CSC meeting.

One member of the public made comments during the CSC meeting regarding the new requirement for direct wiring at multi-family properties. (Direct wiring requires that each EV charger for an assigned parking space must be directly wired to the electric meter or panel for the associated dwelling unit.) The commenter stated connecting chargers to individual meters is cost prohibitive due to the additional conduit and wiring needed. The commenter suggested it would make more sense to have shared parking spaces with chargers that can be operated by commercial entities. Staff responded during the meeting that the new requirement for direct wiring is a CalGreen requirement that took effect on July 1, 2024. City staff is not recommending any direct requirements that would be unique to Hayward.

NEXT STEPS

If Council approves the attached resolution, a second reading of the ordinance will be scheduled for a subsequent meeting. If the ordinance is adopted, it will be filed with the California Building Standards Commission. Staff intends to return to the CSC and Council in 2025 to present proposed updates to the all-electric building requirements in the Reach Code in response to the legal issues identified in the court ruling regarding the Berkeley gas ban as well as potential changes to the EV charging requirements suggested by the CSC.

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Recommended by: Alex Ameri, Director of Public Works
Sara Buizer, Development Services Director

Approved by:



Dustin Claussen, Interim City Manager