**DATE:** [July 9, 2024]

**TO:** [Honorable Mayor and Members of the City Council]

**SUBMITTED BY:** [Name, title]

**PREPARED BY:** [Name, title]

**SUBJECT:** Ordinance Amending Chapter [XX.XX] of the [Jurisdiction] Municipal Code to Adopt an Electric Vehicle Reach code

# RECOMMENDATION

Introduce and conduct the first reading by title only, waiving further reading of Ordinance No. 24-\_\_ entitled [Ordinance title].

# BACKGROUND

## Policy Context

[Examples: City’s goals, City’s budget priorities, City’s Strategic Plan] identifies the need to accelerate the development and installation of Electric Vehicle (EV) charging infrastructure as a means of supporting environmental vitality and the City’s transition to a clean energy future.

In September 2020, Governor Newsom issued an Executive Order requiring sales of all new passenger vehicles to be zero-emission by 2035 and additional measures to eliminate harmful emissions from the transportation sector. The Executive Order directs the California Air Resources Board (CARB), California Energy Commission (CEC), California Public Utilities Commission, other State agencies, and local agencies to accelerate deployment of affordable fueling and charging options for zero-emission vehicles (ZEVs) in ways that serve all communities, and specifically low-income and disadvantaged communities.

Transportation accounts for nearly 40% of the greenhouse gas (GHG) emissions in California as of 2021 [Update with local data if available]. One of the key strategies to reduce emissions and meet the ambitious climate goals of the State is encouraging the use of EVs and expanding EV charging infrastructure. The most common barrier to adopting an EV, especially for residents of multifamily buildings, is the lack of access to reliable charging at the home or workplace. Requiring EV charging infrastructure in new buildings is a fundamental way to support the transition to EVs and is significantly less expensive than future retrofits to add EV charging.

## Reach code Adoption Process

California has a goal to install 250,000 EV chargers to support 1.5 million ZEVs by 2025 and infrastructure to support 5 million ZEVs by 2030. The 2022 California Building Standards Code (CBSC) includes EV charging requirements. Given the pace of transition needed to meet state goals and meaningfully address the climate crisis, more access to EV charging is needed. Most of the buildings built in or after 2023 will continue to exist in 2035 when all new vehicles will be zero emission, and these EVs will need a place to charge. To meet the growing need for access to EV chargers, local jurisdictions often adopt “reach codes” to increase the number of EV charging spaces required in new construction, additions, and alterations. A reach code is a local Building Energy Code that “reaches” beyond the state minimum requirements for energy use in building design and construction, creating opportunities for local governments to lead beyond state requirements.

More than 44 local governments in California have adopted EV reach codes. These jurisdictions have increased EV infrastructure requirements in their Building Codes to help provide critical EV charging infrastructure for residences and workplaces. EV reach codes help jurisdictions meet the growing gap in EV charging demand and availability. Adopting a reach code component that addresses EV charging infrastructure will help further electrify the transportation sector. With bold EV adoption and infrastructure goals set by the state, [jurisdiction] can further support the transportation electrification transition by increasing the minimum requirements for EV infrastructure in new construction.

To help achieve GHG emission reductions and EV goals, and in acknowledgement of the existing gaps in local EV charging infrastructure, staff introduced research and background on this issue at [event name and date]. [Result of event, such as recommendations]. Staff has partnered with technical consultants from [CCA Name] to develop an ordinance that balances the policy requests, streamlines implementation, advances the City’s support for EV infrastructure, and reflects feedback from the community.

# DISCUSSION

The State develops and adopts adjustments to Building Codes and Standards in between the regular three-year adoption cycle, known as intervening cycle changes. Intervening cycle changes for the 2022 California Building Code and Standards include adjustments to CALGreen EV charging requirements for multifamily, hotel, motel, and nonresidential developments. All jurisdictions are required to automatically adhere to the Intervening Code Adoption Cycle version of Title 24 – unless a superseding reach code is in place – on July 1, 2024.

The City typically adopts the State’s Energy and Building Code or the “Green Building Code” with local amendments. The proposed ordinance would amend Chapter [XX.XX] entitled [“Chapter Name”] of the [jurisdiction] Municipal Code to adopt the latest State’s Green Building Code and local amendments that will constitute [jurisdiction’s] reach code. Staff has worked with technical consultants to develop an EV reach code ordinance that is up to date with information from the State on the 2022 Green Building Code, including intervening cycle changes required as of July 1, 2024.

## Single-family Residential

The statewide base code specifies that new single-family homes include one EV capable space, which requires service panel or subpanel capacity for future EV charging installation. Staff recommends adopting a simple reach code for single-family residential, requiring one Level 2 EV charging receptacle and, if a second space is available, one Level 1 EV charging receptacle.

## Multifamily Residential

Prioritizing access to EV chargers in multifamily residential is essential to supporting the transition to EVs for the entire community. Nearly one-third of Californians live in housing with two or more units in the building [Replace with local statistic if available]. The CALGreen intervening cycle requires 40% of total parking spaces under this designation to have low power Level 2 EV ready receptacles and 10% of total parking spaces to have Level 2 EV charging stations (EVCS) installed. As prioritizing access to EV chargers in multifamily residential is essential to supporting The proposed EV reach code includes additional requirements for multifamily residential developments to ensure this significant portion of the community has equitable access to EV charging. These additional requirements align with the proposed language for the upcoming mandatory requirements of the 2025 Green Building Code.

For multifamily parking facilities, where dwelling units are provided with parking spaces equal to or greater than the number of dwelling units, at least one low power Level 2 EV charging receptacle shall be provided for each dwelling unit. Where the total number of dwelling units exceeds the number of parking spaces, all parking spaces shall be provided with one low power Level 2 EV charging receptacle.

Where dwelling units are provided with both assigned and unassigned parking spaces, at least one low power Level 2 EV charging receptacle shall be provided for each dwelling unit at either the assigned or unassigned parking space, but not required for both.

Additionally, for multifamily parking facilities with unassigned or common use parking, 25% of unassigned or common use parking spaces shall also be equipped with Level 2 EVCS and shall be made available for use by all residents or guests.

As with other land use categories, renovations to existing development must only meet EV reach code standards where already required by state law.

## Hotels and Motels

Currently under the State code, hotels and motels are categorized under multifamily residential, and thus match the same requirements with 40% of total parking spaces with low power Level 2 EV ready receptacles and 10% of total parking spaces to have Level 2 EVCS installed. Expanding charging access at hotels can better accommodate travelers and visitors to the region.

Under the proposed ordinance for new hotels and motels, 40% of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. Additionally, 25% of the total number of parking spaces shall be equipped with Level 2 EVCS. This aligns with the proposed language for the mandatory requirements of the 2025 Green Building Code.

## Nonresidential

For nonresidential development, focusing on developing workplace charging can help support commuters who may be traveling long distances to work or who may not have access to charging at home. Workplace charging also shifts electric usage towards maximum daylight hours which aligns with solar power generation, meaning energy is being used when it is at its cleanest. This also enables less load being added at peak demand times later in the evening when solar power generation is going offline.

The proposed ordinance would require the following of new nonresidential development by parking spaces:

|  |  |  |  |
| --- | --- | --- | --- |
| **FACILITY TYPE** | **NUMBER OF REQUIRED EV CAPABLE OR EVCS SPACES** | **NUMBER OF REQUIRED EV CAPABLE SPACES1** | **NUMBER OF REQUIRED EVCS1,2** |
| Office & Retail | 45% of actual parking spaces | 11% of actual parking spaces | 34% of actual parking spaces |
| All Other | 45% of actual parking spaces | 22% of actual parking spaces | 23% of actual parking spaces |

The CALGreen code also allows for compliance via an alternative “power allocation method” for calculating the amount of power dedicated to EV charging infrastructure. The proposed ordinance would require the following of new nonresidential development via the code’s power allocation method:

|  |  |  |  |
| --- | --- | --- | --- |
| **FACILITY TYPE** | **MINIMUM TOTAL kVA @ 6.6 kVA1** | **MAXIMUM kVA ALLOWED FOR EV CAPABLE SPACES1, 2** | **MINIMUM kVA REQUIRED IN ANY COMBINATION OF LOW POWER LEVEL 2, LEVEL 2, OR DCFC1, 3,**  |
| **Office & Retail** | 45% of actual parking spaces x 6.6 | 11% of actual parking spaces x 6.6 | 34% of actual parking spaces x 6.6 |
| **All Other** | 45% of actual parking spaces x 6.6 | 22% of actual parking spaces x 6.6 | 23% of actual parking spaces x 6.6 |

## Existing Buildings

Where required by state law, these code requirements can apply to renovations, alterations and additions to existing multifamily, hotels, motels and nonresidential buildings when meeting certain thresholds. On the applicability for nonresidential alterations and additions, Section 301.3 of the 2022 Building Code states the following:

*[BSC-CG] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.*

There are additional triggers related to EV charging infrastructure included within the State’s code that seek to improve access when it is most advantageous in the process of renovation. It is important to note that most of these thresholds are already required by the 2022 CALGreen Intervening Code, with only one being added by the reach code, as noted below:

* When the scope of construction work includes an increase or alteration to power supply to an electric service panel as part of a parking facility addition or alteration.
* When a new photovoltaic system is installed covering existing parking spaces.
* When additions or alterations to existing buildings are triggered pursuant to code Section 301.1 and the scope of work includes an increase in power supply to an electric service panel.
* **Reach code:** Addition of parking facilities or alterations that include breaking ground on existing parking surfaces. Green Building Code Section 301.1.1 states what is considered an alteration of an existing parking surface.

Increasing the EV charging requirements for each building sector will have financial impacts on developers who are proposing renovation projects for existing buildings that would trigger code provisions. The most cost-effective time for installing EV charging infrastructure is when a project is being built (i.e., new construction), whereas retrofitting existing buildings can pose financial impacts to developers when potentially triggering these provisions in the State code, particularly for nonresidential developments. Common installation cost drivers could include:

* Trenching or boring a long distance to lay electrical supply conduit from the transformer to the electrical panel or from the electrical panel to the charging location;
* Modifying or upgrading the electrical panel to create dedicated circuits for each EVSE unit if none are already available;
* Upgrading the electrical service to provide sufficient electrical capacity for the site;
* Locating EVSE on parking levels above or below the level with electrical service; and/or
* Meeting ADA accessibility requirements such as ensuring the parking spaces are level.

With these considerations in mind, there are exceptions related to utility infrastructure costs and feasibility included within the State-required and reach code.

## Exceptions

The State’s requirements lay out circumstances where exceptions may be granted, and the proposed EV reach code includes a singular adjustment. Exceptions to the applicability of the reach code are on a case-by-case basis. Building officials may grant an exception in the case of infeasibility due to the following conditions:

* Where there is no local utility power supply.
* Where the local utility is unable to supply adequate power.
* Where demonstrated as impracticable excluding local utility service or utility infrastructure issues.
* Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities and without electrical panel upgrade or new panel installation. Detached ADUs, attached ADUs, and JADUs without additional parking but with electrical panel upgrades or new panels must have reserved breakers and electrical capacity according to the requirements of 4.106.4.1.

Additional exceptions included in the state building code that may be granted in the case of remote parking facilities that do not have access to a building service panel, in the case of parking area lighting upgrades where no trenching is part of the scope of work, and during emergency repairs, including but not limited to water line break in parking facilities, or natural disaster repairs.

The one addition to exceptions provided in the reach code is the following:

* Where there is evidence suitable to the local enforcement agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4.3, may increase construction cost by an average of $4,500 per parking space. EV infrastructure shall be provided up to the level that would not exceed this cost per space for utility service. This is an adjustment to the 2022 Intervening Code that stipulates that an exception may be granted where there is “an adverse impact to the construction cost.” Staff suggests the City Council define to mean construction costs to exceed $4,500 per parking space. Providing an exact number for evaluation of cost impacts reduces ambiguity for building department staff when evaluating projects and enforcing the applicability of EV provisions. Technical experts with TRC identified the $4,500 threshold by evaluating utility cost-estimates borne by the developer per EV space.

# PUBLIC OUTREACH

[Add jurisdiction specific information summarizing public meetings held. Include information like event dates, how events were promoted, how many and what kind of participates attended, and the resulting feedback and impact to the ordinance]

# FISCAL IMPACTS

There are no fiscal impacts related to this item.

# CALIFORNIA ENVIRONMENTAL QUALITY ACT

The City Council hereby finds and determines that this ordinance has been assessed in accordance with the California Environmental Quality Act (Cal. Pub. Res. Code, § 21000 et seq.) (“CEQA”) and the State CEQA Guidelines (14 Cal. Code Regs. § 15000 et seq.) and is categorically exempt from CEQA under CEQA Guidelines, § 15061(b)(3), which exempts from CEQA any project 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. Adoption of the proposed ordinance would not be an activity with potential to cause significant effect on the environment because the adoption and local amendments to the California Green Building Standards Code are enacted to provide more protection to the environment, and therefore is exempt from CEQA. Therefore, it can be seen with certainty that there is no possibility that the ordinance in question may have a significant effect on the environment; accordingly, the ordinance is categorically exempt from CEQA.

**LEGAL REVIEW BY:** [Name], City Attorney

**APPROVED BY:** [Name], City Manager

# ATTACHMENTS

1. [Ordinance information]
2. [PowerPoint Presentation information]