

ORDINANCE NO.

Adopted by the Sacramento City Council

Date Adopted

AN ORDINANCE AMENDING AND ADDING VARIOUS PROVISIONS OF TITLE 15 AND TITLE 17 OF THE SACRAMENTO CITY CODE AND ADOPTING LOCAL AMENDMENTS TO THE CALIFORNIA BUILDING STANDARDS CODE, RELATING TO GREEN BUILDING STANDARDS INCLUDING ELECTRIFICATION

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1.

In connection with the local amendments to the 2019 California Energy Code, 2019 California Green Building Standards Code, and pursuant to California Health and Safety Code sections 17958, 17958.5, 17958.7, and 18941.5, the City Council finds and determines that:

- A. The amendments are reasonably necessary because of local climatic, geological, or topographical conditions.
- B. Under this adopting ordinance, specific amendments are established that are more restrictive than those adopted by the State of California under the State Buildings Standards Code, Title 24 of the California Code of Regulations.
- C. Express Finding Number 1: Climatic

The burning of fossil fuels used to heat structures, heat water, for cooking, vehicle transportation, and for other uses is a significant contributor to greenhouse gas emissions and consequently climate change. “Combustion of natural gas and petroleum products for heating and cooking needs emits carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Emissions from natural gas consumption represent 79.9 percent of direct fossil fuel CO₂ emissions from the residential and commercial sections in 2018.”¹ “Long-lived gases such as carbon dioxide can persist in the atmosphere for more than 100 years, even with efforts to reduce emissions today.”² “Greenhouse gas emissions from transportation primarily come from burning fossil fuel for our cars, trucks, ships, trains, and planes. Over 90 percent of the fuel used for transportation is petroleum based, which includes primarily gasoline and diesel.”³ “Scientists attribute the global warming trend observed since the mid-20th century to the

¹ United States Environmental Protection Agency, [Source of Greenhouse Gas Emissions](https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#commercial-and-residential), as of October 27, 2020, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#commercial-and-residential>.

² Houlton, Benjamin, Jay Lund, (University of California, Davis), 2018. [Sacramento Summary Report. California’s Fourth Climate Change Assessment](#). Publication number: SUM-CCCA4-2018-002, page 11.

³ United States Environmental Protection Agency, [Sources of Greenhouse Gas Emissions](https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#commercial-and-residential), as of November 25, 2020, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#commercial-and-residential>.

human expansion of the ‘greenhouse effect’ warming that results when the atmosphere traps heat radiating from Earth toward space.”⁴ Nitrous oxide, carbon dioxide, and methane are gases that contribute to the greenhouse effect.⁵

“Global climate change imposes substantial local impacts and risks on the Sacramento Valley, including rising temperatures, changing precipitation patterns and amounts, sea level rise, flooding, drought, and wildfire.”⁶ A general summary of climate risks facing the Sacramento Valley Region, including the City of Sacramento, are as follows:

- Warming air and water temperatures
- More extreme heat-waves
- Drier landscapes
- Less snow
- Variable precipitation and seasonal shifts
- More intense droughts and floods with less predictability
- Higher Delta water levels compounded by subsidence
- Increased risk of wildfire
- Loss of ecosystem habitat⁷

“The Sacramento Region is expected to experience hotter and drier conditions and reduced snowpack that could cause reduced reservoir supplies and Sacramento and American River flows.”⁸ “Increased flood frequency and elevated flood risk are expected in California as a result of sea level rise, more intense storm events, and shifts in the seasonal timing of rainfall and snow pack runoff.”⁹ “Higher temperatures and the increased frequency of heat waves associated with climate change are expected to significantly increase heat-related illness, such as heat exhaustion and heat stroke.”¹⁰

Requiring all-electric construction, without gas infrastructure, and imposing additional electric vehicle parking requirements will reduce the amount of greenhouse gas produced in Sacramento and will contribute to reducing the impact of climate change and the associated risks.

Based upon this express finding, the following building standards in the 2019 California Building Standards Code are amended or added:

⁴ NASA, Causes of Climate Change, as of November 25, 2020, <https://climate.nasa.gov/causes/>.

⁵ NASA, Causes of Climate Change, as of November 25, 2020, <https://climate.nasa.gov/causes/>.

⁶ Houlton, Benjamin, Jay Lund, (University of California, Davis), 2018. Sacramento Summary Report. California’s Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-002, page 17.

⁷ Houlton, Benjamin Jay Lund, (University of California, Davis) 2018. Sacramento Summary Report. California’s Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-002, page 6.

⁸ City of Sacramento, Sacramento Climate Action Plan, Expected effects on the Sacramento Region, section 3.3, page 3-11, January 13, 2012.

⁹ City of Sacramento, Sacramento Climate Action Plan, Expected effects on the Sacramento Region, section 3-3, page 3-13, January 13, 2012.

¹⁰ City of Sacramento, Sacramento Climate Action Plan, section 3.3, page 3-13, January 13, 2012.

- 2019 California Energy Code sections 100.0(e)(2)(A) and 100.1(b) (prohibiting gas infrastructure, thereby decreasing the impact of greenhouses gases);
- California Green Building Standards Code sections A4.106.8.2, A4.106.8.2.1, A4.106.8.3, A4.106.8.3.1, A5.106.5.3.2, and A5.106.5.3.5 (increasing electric vehicle infrastructure, thereby decreasing the impact of greenhouse gases); and
- Sacramento City Code section 15.38.040 (implementing effective dates).

D. Express Finding Number 2: Geological

Sacramento is subject to ground tremors from seismic events as the City is located in a Design Category D, which relates to a high risk of earthquakes. The high-risk seismic zone is defined based on the proximity to known fault lines, soil type, and known mapped spectral accelerations. Large portions of Sacramento have very poor soil conditions, including liquefiable soil. The soil is often expansive in nature and very acidic which leads to pre-mature deterioration of plumbing piping installed in the ground. Although non-metallic gas pipe is not susceptible to deterioration, there are many homes built with metallic gas pipe infrastructure. The elimination of natural gas infrastructure in new dwellings would reduce the hazards associated with gas leaks during seismic events.

Based on this express finding, the following building standards in the 2019 California Building Standards Code are amended:

- 2019 California Energy Code sections 100.0(e)(2)(A) and 100.1(b) (prohibiting gas infrastructure, thereby decreasing the impact of greenhouses gases).

E. California Energy Code

The City Council finds that the modifications made to the California Energy Code in this ordinance are cost-effective for new buildings three stories or less as required by California Public Resources Code section 25402.1(h)(2). This finding of cost-effectiveness is based on the August 1, 2019 California Energy Standards 2019 Cost-effectiveness study: Low-Rise Residential New Construction, and the July 25, 2019 California Energy Codes and Standards 2019 Nonresidential New Construction Reach Code Cost Effectiveness Study. The cost-effectiveness studies have determined specific modifications to the 2019 California Energy Code for climate zone 12 are cost-effective. Further, pursuant to California Public Resources Code section 25402.1(h)(2), the City Council finds that the amendments made to the California Energy Code in this ordinance for new buildings three stories or less will require diminution of energy consumption levels to those permitted by the 2019 California Energy Code.

It is anticipated that cost-effectiveness studies for new buildings four stories or more will be published prior to the January 1, 2026 effective date for new buildings four stories or more.

SECTION 2.

Chapter 15.30 is hereby added to the Sacramento City Code to read as follows:

Chapter 15.30 AMENDMENTS TO THE CALIFORNIA ENERGY CODE

15.30.010 Amendments to the CEnC.

The CEnC is amended as set forth in this chapter.

15.30.020 Title lines.

For the purposes of this chapter, and notwithstanding the provisions of section 1.04.060, the title lines (or “catchwords”) in this chapter shall be deemed to be part of such sections.

15.30.030 Local amendments to the CEnC.

A. Subsection 100.0(e)(2)(A) of the CEnC is amended to read as follows:

A. **All newly constructed buildings.** Sections 110.0 through 110.12 apply to all newly constructed buildings within the scope of Section 100.0(a). In addition, newly constructed buildings shall meet the requirements of Subsections B, C, D or E, as applicable.

1. For building permit applications filed on or after January 1, 2023, all newly constructed buildings that are three stories or less shall be all-electric buildings notwithstanding any other provisions in this California Energy Code.

2. For building permit applications filed on or after January 1, 2026, all newly constructed buildings that are four stories or more shall be all-electric buildings notwithstanding any other provisions in this California Energy Code.

3. For the purposes of all-electric building requirements, a newly constructed building as defined in section 100.1 shall not include newly constructed additions and improvements, including tenant improvements, in existing buildings as defined in the CBC.

4. If a building permit applicant establishes to the satisfaction of the building official that compliance with this subsection is infeasible, the building official may grant a modification to the requirements of this subsection.

B. The following definition is added to Subsection 100.1(b) to read as follows:

ALL-ELECTRIC BUILDING: is a building that does not have natural gas piping or propane plumbing installed on a lot or within a building, and that uses electricity as the sole source of energy for its space heating, water heating (including indoor and outdoor

pools and spas), cooking appliances, outdoor kitchens, outdoor fireplaces, and clothes drying appliances. All-electric buildings may include solar thermal pool heating.

SECTION 3.

Chapter 15.38 is hereby added to the Sacramento City Code to read as follows:

Chapter 15.38 AMENDMENTS TO THE CALIFORNIA GREEN BUILDING STANDARDS CODE

15.38.010 Amendments to the CGC.

The CGC is amended as set forth in this chapter.

15.38.020 Title lines.

For the purposes of this chapter, and notwithstanding the provisions of section 1.04.060, the title lines (or “catchwords”) in this chapter shall be deemed to be part of such sections.

15.38.030 Local amendments to the CGC.

A. Tier 2 of Subsection A4.106.8.2 is added to read as follows:

A4.106.8.2 New Multifamily Dwellings

Tier 2. For new multifamily dwellings, twenty (20) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number. An electric vehicle charging station shall be installed in at least one electric vehicle charging space.

B. A4.106.8.2.1 is added to read as follows:

A4.106.8.2.1 Technical Requirements

The EV spaces required by Section A4.106.8.2 shall be designed and constructed in accordance with Sections 4.106.4.2.1, 4.106.4.2.2, 4.106.4.2.3, 4.106.4.2.4, and 4.106.4.2.5.

C. Tier 2 of Subsection A4.106.8.3 is added to read as follows:

A4.106.8.3 New Hotels and Motels

Tier 2. For new hotels and motels, twenty (20) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number. An electric vehicle charging station shall be installed in at least one electric vehicle charging space.

D. A4.106.8.3.1 is added to read as follows:

A4.106.8.3.1 Technical Requirements

The EV spaces required by Section A4.106.8.3 shall be designed and constructed in accordance with Sections 4.106.4.3, 4.106.4.3.2, 4.106.4.3.3, 4.106.4.3.4, 4.106.4.3.5, and 4.106.4.3.6.

E. Tier 2 Subsection 5.106.5.3.2 is amended to read as follows:

A5.106.5.3.2 New Nonresidential

Tier 2. For new nonresidential, twenty (20) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number. An electric vehicle charging station shall be installed in at least one electric vehicle charging space.

F. A5.106.5.3.5 is added to read as follows:

A5.106.5.3.5 Technical Requirements

Raceways for electric vehicle charging spaces are required to be installed at the time of construction and shall be installed in accordance with the California Electrical Code Construction plans and specifications shall include, but are not limited to, the following:

1.The type and location of the EVSE.

2.The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.

3.Plan design shall be based upon 40-ampere minimum branch circuits.

4.Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.

5.The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

15.38.040 Effective Date of Local Amendments to the CGC.

Sections A4.106.8.2 Tier 2, A4.106.8.2.1, A4.106.8.3 Tier 2, A4.106.8.3.1, A5.106.5.3.2 Tier 2, and A5.106.5.3.5 are applicable to building permit applications filed on or after January 1, 2023, for new construction three stories or less and are applicable to building permit applications filed on or after January 1, 2026, for new construction four stories or more.

SECTION 4.

A. Section 17.108.060 is hereby amended to add the following definitions:

"Electric vehicle charger" means off-board charging equipment used to charge an electric vehicle.

"Electric vehicle charger level 2" means a 208-240 volt electric vehicle charger.

"Electric vehicle direct current fast charger" means at least a 400 volt electric vehicle charger.

"Electric vehicle charging space" means a parking space intended for future installation of EV charging equipment and charging of electric vehicles.

"Electric vehicle charging stations" means one or more electric vehicle charging spaces served by electric vehicle charger(s) or other charging equipment allowing charging of electric vehicles.

B. Except as amended by subsection A above, all provisions of section 17.108.060 remain unchanged and in full effect.

SECTION 5.

A. Subsection H of section 17.608.020 of the Sacramento City Code is hereby amended to read as follows:

H. Accessibility and electric vehicle charging.

1. If a building permit requires an existing off-street parking facility to comply with any building standards or other requirements in the Sacramento City Building Code related to accessibility, or if accessible parking spaces are otherwise created, the number of parking spaces required by this title may be reduced, redesigned, and restriped as

~~necessary without issuance of a permit under this title. The California Building Code. The required number of spaces in off-street parking facilities that are restriped or redesigned to meet accessibility requirements may be reduced as necessary to comply with Title 24 of the California Building Code.~~

2. If a building permit requires an existing off-street parking facility to comply with any building standards or other requirements in the Sacramento City Building Code related to electric vehicle charging spaces or if electric vehicle charging spaces are otherwise created, the number of parking spaces required by this title may be reduced, redesigned and restriped, as necessary without issuance of a permit under this title.

B. Except as amended by subsection A above, all provisions of section 17.608.020 remain unchanged and in full effect.

SECTION 6.

Section 17.608.040 of the Sacramento City Code is hereby amended as follows:

A. Subsection F.2.c is hereby added to read as follows:

c. Electric vehicle charging spaces and electric vehicle charging stations. The number of electric vehicle charging spaces and electric vehicle charging stations are determined by the Sacramento city building code. Electric vehicle charging stations shall be clearly marked "EV CHARGING ONLY."

B. Subsection M is hereby amended to read as follows:

M. Directional signage. If a development project includes directional signage to an off-street vehicle parking facility, the signage shall also indicate the location of bicycle parking and the existence of electric vehicle charging stations.

C. Subsection O is hereby added to read as follows:

O. Electric vehicle charging spaces and electric vehicle charging stations.

1. Electric vehicle charging stations and electric vehicle charging spaces shall comply with the requirements in the Sacramento city building code.

2. All off-street parking facilities, shall provide electric vehicle charging stations and electric vehicle charging spaces in compliance with the provisions in the Sacramento city building code.

D. Except as amended by subsections A, B, and C above, all provisions of section 17.608.040 remain unchanged and in full effect.

SECTION 7.

A. Subsection A.1.h is hereby added to section 17.608.060 to read as follows:

h. Additional electric vehicle charging station. One electric vehicle charging station utilizing an electric vehicle charger level 2 or an electric vehicle direct current fast charger may be substituted for a maximum of two parking spaces or 10% of the required on-site parking spaces, whichever is greater.

B. Except as amended by subsection A above, all provisions of section 17.608.060 remain unchanged and in full effect.

SECTION 8.

If any provision of this Ordinance or its application to any person or circumstance is held invalid or ineffective by any court of competent jurisdiction, or by reason of any preemptive legislation, that invalidity shall not affect the validity of the remaining provisions of this Ordinance. The City Council declares that it would have passed this Ordinance and each section, subsection, subdivision, sentence, clause, and phrase, irrespective of the fact that any one or more sections, subsections, subdivisions, sentences, clauses, phrases, or words be declared invalid.

Adopted by the City of Sacramento City Council on _____ by the following vote:

Ayes:

Noes:

Abstain:

Absent:

MAYOR

Attest:

City Clerk

Passed for Publication:

Published:

Effective: