

**ORDINANCE NO.**

Adopted by the Sacramento City Council

Date Adopted

**AN ORDINANCE ADDING TO AND AMENDING VARIOUS PROVISIONS OF TITLE 15 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, 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, 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). Emissions from natural gas consumption represent 79.9 percent of direct fossil fuel CO<sub>2</sub> emissions from the residential and commercial sections in 2018.”<sup>1</sup> “Long-lived gases such as carbon dioxide can persist in the atmosphere for more than 100 years, even with efforts to reduce emissions today.”<sup>2</sup> “Scientists attribute the global warming trend observed since the mid-20th century to the human expansion of the ‘greenhouse effect’ warming that results when the atmosphere traps heat radiating from Earth toward space.”<sup>3</sup> Nitrous oxide, carbon dioxide, and methane are gases that contribute to the greenhouse effect.<sup>4</sup>

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<sup>1</sup> 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>.

<sup>2</sup> 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.

<sup>3</sup> NASA, [Causes of Climate Change](https://climate.nasa.gov/causes/), as of November 25, 2020, <https://climate.nasa.gov/causes/>.

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

“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.”<sup>5</sup> 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 habitat<sup>6</sup>

“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.”<sup>7</sup> “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.”<sup>8</sup> “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.”<sup>9</sup>

Requiring all-electric construction, without gas infrastructure 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:

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

#### D. Express Finding Number 2: Geological

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<sup>5</sup> 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.

<sup>6</sup> 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.

<sup>7</sup> City of Sacramento, [Sacramento Climate Action Plan](#), Expected effects on the Sacramento Region, section 3.3, page 3-11, January 13, 2012.

<sup>8</sup> City of Sacramento, [Sacramento Climate Action Plan](#), Expected effects on the Sacramento Region, section 3-3, page 3-13, January 13, 2012.

<sup>9</sup> City of Sacramento, [Sacramento Climate Action Plan](#), section 3.3, page 3-13, January 13, 2012.

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 are 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.

- i. For building permit applications filed on or after January 1, 2023, except as provided in subsection (vi) and (vii), all newly constructed buildings that are three stories or less shall be all-electric buildings notwithstanding any other provisions in this California Energy Code.
- ii. For building permit applications filed on or after January 1, 2026, except as provided in subsection (vii), all newly constructed buildings that are four stories or more shall be all-electric buildings notwithstanding any other provisions in this California Energy Code.
- iii. 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.
- iv. Except as provided in subsection (vi) and subsection (vii), building permits shall not be issued to convert all-electric buildings that are three-stories or less into mixed-fuel buildings where the initial building permit application is filed on or after January 1, 2023.
- v. Except as provided in subsection (vii), building permits shall not be issued to convert all-electric buildings that are four-stories or more into mixed-fuel buildings where the initial building permit application is filed on or after January 1, 2026.
- vi. Limited exemptions. For building permit applications filed on or before December 31, 2025, an applicant may request one of the following limited exemptions to construct a mixed fuel building:
  - a. Ground floor food service establishment for the area of the building with cooking equipment. The building official shall grant the exemption only for natural gas or propane piping systems, fixtures, or infrastructure necessary for cooking equipment within the designated food service area.
  - b. Manufacturing or industrial facilities for the area of the building with process loads. The building official shall grant the exemption only for the area of the building with process loads.

c. Water-heating systems and equipment in regulated affordable housing for those portions of the building where virtual net energy metering is unavailable.

vii. Infeasibility.

If a building permit applicant establishes to the satisfaction of the building official that it is infeasible to comply with the all-electric building requirements in subsection 100.0(e)(2)(A)(i) or subsection 100.0(e)(2)(A)(ii) because of the type of building, physical site conditions, commercial availability of electric appliances or equipment, necessary operational requirements, electrical infrastructure requirements, or the public health, safety, or economic welfare in the event of an electric grid outage, the building official may waive the requirements of subsection 100.0(e)(2)(A)(i) or subsection 100.0(e)(2)(A)(ii) only for those portions of the building where all-electric is infeasible.

B. The following definitions are added to Subsection 100.1(b) to read as follows:

**ALL-ELECTRIC BUILDING** means 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.

**COOKING EQUIPMENT** means equipment intended for commercial use, including ovens, ranges, brewing kettles, and cooking appliances, for use in a restaurant, brewery, or other business establishment where food or beverages are prepared and served for consumption on-site or off-site, other than a cottage food operation as defined in California Health and Safety Code Section 113758.

**FOOD SERVICE ESTABLISHMENT** means a building with cooking equipment where food or beverages are prepared and served for consumption on-site or off-site.

**MANUFACTURING OR INDUSTRIAL FACILITY** means a building with the occupancy classifications as defined in the California Building Code, Chapter 3, Section 306, Group F or Section 313, Group L.

**MIXED-FUEL BUILDING** means a building that uses natural gas or propane as fuel for space heating or cooling, exterior heating, decorative uses and lighting, water heating (including pools and spas), cooking appliances or clothes drying appliances, onsite generation of electricity (except where primarily fueled by onsite digestion of organic material), or contains fixtures, piping systems, or infrastructure for natural gas or propane equipment for such uses.

**PROCESS** means an activity or treatment that is not related to the space conditioning, lighting, service water heating, or ventilating of a building as it relates to human occupancy.

**PROCESS LOAD** means an energy load resulting from a process.

**REGULATED AFFORDABLE HOUSING** means a building to be occupied by low or moderate income households as defined in California Health and Safety Code Section 50093; offered at an affordable rent as defined in California Health and Safety Code Section 50053 for a period of at least 30 years; and subject to restriction for a period of at least 30 years under a recorded regulatory agreement between the property owner and a local, state, or federal agency.

**VIRTUAL NET ENERGY METERING** means a billing arrangement that allows multi-tenant building owners to install a single solar system to cover the electricity load of both common and tenant areas connected at the same service delivery point. The electricity does not flow directly to any tenant meter, but feeds some common area loads and the remainder goes onto the grid. The electricity that is feed back to the grid is then proportioned to the tenant’s bill.

**15.30.040 Infeasibility exemption determination process.**

The building official shall develop guidelines to consider infeasibility exemptions under Section 15.30.030.A. The guidelines must include a process that includes, but not is not limited to, a meeting with the building permit applicant during which the building permit applicant can present documentation and any other evidence to support the building permit applicant’s claim of infeasibility; consultation with relevant industry experts, including the Sacramento Municipal Utility District; and a written decision granting or denying the infeasibility exemption including the reasons for the decision. The guidelines shall not be effective until approved by resolution of the City Council.

**SECTION 3.**

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:

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MAYOR

Attest:

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City Clerk

Passed for Publication:

Published:

Effective: