

## ORDINANCE NO. 2022-0027

Adopted by the Sacramento City Council

November 29, 2022

### **An Ordinance Deleting Chapter 15.30 and Amending Chapter 15.38 of the Sacramento City Code to Adopt Local Amendments to the California Building Standards Code Relating to New Building Electrification**

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

#### **SECTION 1.**

In connection with the local amendments to the 2022 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, to heat water, to cook, to operate vehicles, and for other uses significantly contributes 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% of direct fossil fuel CO<sub>2</sub> emissions from the residential and commercial sections in 2020."<sup>1</sup> The burning of fossil fuels releases "the greenhouse gases carbon dioxide (CO<sub>2</sub>) and nitrous oxide (N<sub>2</sub>O) into the atmosphere, which intensifies the greenhouse effect (the re-radiation of heat in the atmosphere), increasing the Earth's average air temperatures."<sup>2</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>3</sup> "Scientists attribute the global warming trend observed

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<sup>1</sup> United States Environmental Protection Agency, Source of Greenhouse Gas Emissions, as of July 5, 2022, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#commercial-and-residential>.

<sup>2</sup> Understanding Global Change. A project of the University of California Museum of Paleontology. <https://ugc.berkeley.edu/background-content/burning-of-fossil-fuels/>

<sup>3</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.

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>4</sup> Nitrous oxide, carbon dioxide, and methane are gases that contribute to the greenhouse effect.<sup>5</sup>

"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>6</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 heatwaves
- 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>7</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>8</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>9</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>10</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 2022 California Building Standards Code are amended or added:

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<sup>4</sup> NASA, Causes of Climate Change, as of July 5, 2022, <https://climate.nasa.gov/causes/>.

<sup>5</sup> NASA, Causes of Climate Change, as of July 5, 2022, <https://climate.nasa.gov/causes/>.

<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 17.

<sup>7</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>8</sup> City of Sacramento, Sacramento Climate Action Plan, Expected effects on the Sacramento Region, section 3.3, page 3-11, January 13, 2012.

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

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

- 2022 California Green Building Standards Code sections 101.12, subsections 101.12.1 through 101.12.7, and section 202 (prohibiting gas infrastructure, thereby decreasing the impact of greenhouses gases).

D. Express Finding Number 2: Geological

Sacramento is subject to ground tremors from seismic events as the City is located in Seismic Design Category D, which equates 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 premature deterioration of plumbing piping installed in the ground. Although non-metallic gas pipe is not susceptible to deterioration, there are buildings built with metallic gas pipe infrastructure.

The agricultural history for many parts of Sacramento has resulted in many areas having caustic or “hot” soil conditions due to the heavy use of fertilizers, pesticides, insecticides, etc. Unprotected metal pipe, when buried in these areas, is subject to corrosion and premature failure.

The elimination of natural gas (fuel gas) infrastructure in buildings would reduce the hazards associated with gas leaks during seismic events.

Based on this express finding, the following building standards in the 2022 California Building Standards Code are amended:

- 2022 California Green Building Standards Code section 101.12, including subsections 101.12.1 through 101.12.7, and section 202 (prohibiting gas infrastructure, thereby decreasing the impact of greenhouses gases).

E. Health and Safety

Some subpopulations of Sacramento residents suffer high rates of respiratory illnesses like asthma and cardiovascular disease due to both outdoor and indoor air pollution. The American Lung Association lists Sacramento as one of the most polluted cities in the nation, ranking ninth by ozone pollution, eleventh by year-round particle pollution, and seventh by short-term particle pollution.<sup>11</sup> Indoor air pollutants that arise from onsite natural gas (fuel gas) combustion further exacerbate health outcomes for Sacramento residents, particularly for people of color, immigrants, indigenous communities, low-income people, those with disabilities, and the unhoused. Studies have shown that

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<sup>11</sup> American Lung Association, Most Polluted Cities 2022, <https://www.lung.org/research/sota/city-rankings/most-polluted-cities>.

children living in homes with gas cooking are 42% more likely to have asthma, with low-income households suffering higher levels of poor indoor air quality and consequent health impacts.<sup>12</sup> The elimination of natural gas (fuel gas) appliances and infrastructure will significantly reduce and prevent the public health and safety risks associated with natural gas (fuel gas) combustion and promote the wellbeing of Sacramento's most vulnerable populations.

## **SECTION 2.**

Chapter 15.30 of the Sacramento City Code is hereby deleted.

## **SECTION 3.**

Chapter 15.38 of the Sacramento City Code is amended 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 Catchlines of sections.**

For the purposes of this chapter, and notwithstanding the provisions of section 1.04.060, the catchlines (or titles) of sections in this chapter are part of such sections.

#### **15.38.030 Local amendments to the CGC.**

A. Section 101.12 is added to read as follows:

#### **101.12 New Building Electrification**

##### **101.12.1**

For building permit applications filed on or after January 1, 2023, except as provided in subsections 101.12.6 and 101.12.7, all newly constructed buildings that are three stories or less shall be all-electric buildings.

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<sup>12</sup> California Public Interest Research Group, [Gas Stoves: A Hidden Health Risk In Plane Sight](https://calpirg.org/reports/cap/gas-stoves-hidden-health-risk-plain-sight#:~:text=A%20meta%2Danalysis%20of%2041,a%20doctor%20over%20their%20lifetime.),  
<https://calpirg.org/reports/cap/gas-stoves-hidden-health-risk-plain-sight#:~:text=A%20meta%2Danalysis%20of%2041,a%20doctor%20over%20their%20lifetime.>

#### 101.12.2

For building permit applications filed on or after January 1, 2026, except as provided in subsection 101.12.7, all newly constructed buildings shall be all-electric buildings.

#### 101.12.3

For the purposes of all-electric building requirements, the term “newly constructed building” as defined in Section 202 does not include additions, improvements, or tenant improvements, to “existing buildings” as defined in the CBC.

#### 101.12.4

Except as provided in subsections 101.12.6 and 101.12.7, building permits shall not be issued to convert all-electric buildings that are three stories or less into mixed-fuel buildings when the initial building permit application is filed on or after January 1, 2023.

#### 101.12.5

Except as provided in subsection 101.12.7, building permits shall not be issued to convert all electric buildings into mixed-fuel buildings when the initial building permit application is filed on or after January 1, 2026.

#### 101.12.6

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 fuel gas piping, 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 this 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.

If the technology to require construction of an all-electric building for ground-floor food-service establishments, manufacturing facilities, industrial facilities, or regulated affordable housing is not feasible and available by July 1, 2025, the City Council shall

consider extending the building permit application filing deadline for the limited exemption until technology is feasible and available.

The section 101.12.1 and section 101.12.2 requirements to construct all-electric buildings shall not apply to sectors with limited exemptions as described above (ground floor food service establishments for the area of the building with cooking equipment, areas of manufacturing or industrial facilities with process loads, or affordable housing without virtual net energy metering) until January 1, 2026. If the technology is not feasible or readily available, the exemption shall continue for however long is necessary to achieve the technology.

Once a project is granted a limited exemption, the limited exemption remains throughout the construction process; the building is permitted to remain mixed-fuel regardless of technological advances.

#### 101.12.7

##### Infeasibility.

The building official may waive the requirements of subsections 101.12.1 or 101.12.2 only for those portions of the building if a building permit applicant establishes, to the satisfaction of the building official that it is infeasible to comply with the requirements 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.

Once a project is granted an infeasibility waiver and is issued a building permit, the infeasibility waiver remains throughout the construction process; the building is permitted to remain mixed-fuel regardless of technological advances.

B. The following definitions are added to section 202 to read as follows:

**ALL-ELECTRIC BUILDING** means a building that does not have fuel gas piping installed on the lot or within the building; and that uses electricity as the sole source of energy, except for emergency power systems that are required to serve essential facilities or are otherwise required by law or regulation.

**COOKING EQUIPMENT** means equipment, including ovens, ranges, brewing kettles, and cooking appliances, that are intended for commercial 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.

**EMERGENCY POWER SYSTEM** has the same meaning as in California Building Code section 202.

**ESSENTIAL FACILITIES** has the same meaning as in California Building Code section 202.

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

**FUEL GAS** has the same meaning as in California Mechanical Code section 202 and California Plumbing Code section 208.

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

**MIXED-FUEL BUILDING** means a building that includes fuel gas piping and that is capable of using both fuel gas and electricity as sources of energy.

**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 solar production is fed back to the grid, then allocated to each tenant and common area's monthly bill.

#### **15.38.040 Infeasibility waiver determination process and appeals.**

The building official shall develop guidelines establishing a process to consider infeasibility waivers under section 15.38.030.A. The guidelines must be developed in consultation with relevant industry experts and practitioners, including the Sacramento Municipal Utility District. The process must include, but not is not limited to, a meeting during which the building permit applicant can present evidence to support the claim of infeasibility; a timely written decision granting or denying the infeasibility waiver that includes the reasons for the decision; and the ability for a building permit applicant to

appeal the infeasibility-waiver decision in accordance with chapter 1.24 by filing a notice of appeal within 10 business days after the written decision is sent to the building permit applicant. The guidelines shall not be effective until approved by resolution of the City Council.

**SECTION 4.**

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 November 29, 2022, by the following vote:

Ayes: Members Ashby, Guerra, Harris, Jennings, Loloee, Schenirer, Valenzuela, Vang, and Mayor Steinberg

Noes: None

Abstain: None

Absent: None

Attest: 

12/14/2022

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Mindy Cuppy, City Clerk

*The presence of an electronic signature certifies that the foregoing is a true and correct copy as approved by the Sacramento City Council.*

Passed for Publication: November 15, 2022

Published: November 18, 2022

Effective: January 1, 2023