

ORDINANCE NO. C-2021-_____

**ORDINANCE AMENDING THE HALF MOON BAY MUNICIPAL CODE TO ADD A NEW CHAPTER
14.06 TO TITLE 14 ENTITLED "ELECTRIFICATION OF BUILDINGS"**

THE COUNCIL OF THE CITY OF HALF MOON BAY DOES ORDAIN AS FOLLOWS:

Section 1. Findings. The City Council of the City of Half Moon Bay hereby adds a new Chapter 14.06 ("Electrification of Buildings") to Title 14 of the Half Moon Bay Municipal Code. The City Council finds and declares as follows:

- (a) Health and Safety Code Section 18941.5, with reference to Section 17958.7, allows for more restrictive local amendments to the current California Building Standards Code ("Building Codes") that are reasonably necessary because of local climatic, geological, or topographical conditions.
- (b) The Half Moon Bay City Council expressly declares that these proposed amendments to the Building Codes are reasonably necessary because of local climatic, topographical, and geological conditions, and hereby adopts the findings of reasonable necessity as set forth in Attachment A accompanying this ordinance.
- (c) Express findings that these modifications to the Building Codes are reasonably necessary are hereby made and will be filed with the California Building Standards Commission in accordance with California Health and Safety Code Section 17958.7 before this ordinance takes effect.
- (d) Failure to address and significantly reduce greenhouse gas emissions could result in rises in sea level that could put at risk Half Moon Bay homes and businesses, public facilities, and portions of major local and regional transportation infrastructure.
- (e) Due to changes in rainfall patterns expected with climate change, the City of Half Moon Bay is likely to be subject to more severe weather events, including droughts as well as more intense storms that increase the risks of, and have actually resulted in, extreme wildfires, erosion, overland local flooding and landslides.
- (f) It is expected that climate change will result in further severe and frequent extreme heat events, intensifying local heat islands and putting vulnerable populations at health risk, which has already occurred at unprecedented levels with sea level rise and widespread wildfires in the area.
- (g) In 2016, the State of California enacted Senate Bill (SB) 32 to require greenhouse gas emissions to be reduced to 40 percent below 1990 levels by 2030.

(h) In 2018, Governor Brown signed Executive Order (EO) B-55-18 which calls for California to achieve carbon neutrality as soon as possible, and no later than 2045.

(i) The City of Half Moon Bay is preparing its Climate Action and Adaptation Plan to, at minimum meet State emissions goals established in SB32 and EO B-55-18.

(j) Based upon the latest available data, 48 percent of Half Moon Bay's local greenhouse gas emissions came from buildings, with 80 percent of that total coming from onsite Fuel Gas combustion.

(k) Without significant reductions in Fuel Gas combustion within existing buildings, Half Moon Bay is unlikely to achieve its greenhouse gas reduction targets.

(l) The City Council has identified electrifying buildings as a necessary strategy to achieve the City's 2030 and 2045 greenhouse gas reduction targets.

(m) Half Moon Bay primarily receives electricity from Peninsula Clean Energy, whose electricity portfolio is 100% carbon free as of January 2021, prioritizing local renewable generation and local green jobs development.

(n) Onsite Fuel Gas combustion is known to lead to elevated levels of harmful indoor air pollutants that disproportionately affect frontline communities, including people of color, immigrants, indigenous communities, low-income people, those with disabilities, and the unhoused.

(o) The indoor air pollutants that arise from onsite Fuel Gas combustion have been shown to contribute to respiratory ailments such as asthma, such that children living in homes with gas cooking are 42 percent more likely to have asthma.

(p) Fuel Gas infrastructure and pipelines contribute to the risk of fires and explosions such as the 2010 San Bruno pipeline explosion, with the risk magnified in cases of major earthquakes.

(q) Climate disruption is being fueled by the burning of fossil fuels, including "natural gas," oil, and coal, and the disruption is already having devastating impacts on those who can least afford it and are least responsible for the problem.

(r) Requiring all newly constructed buildings to be all-electric will create the groundwork for clean energy technologies to proliferate and become cost-competitive, and provide the impetus for workforce development in clean energy technologies and building electrification retrofits, such that it will be easier for existing buildings to become all-electric.

(s) Highly efficient buildings enhance Half Moon Bay's public health, welfare, and resiliency by promoting environmental and economic health and safety through the design, construction, maintenance, and operation of buildings.

(t) It is reasonably necessary to require buildings to produce renewable, low-carbon electricity and to reduce energy consumption through efficient design in order to reduce the effects of climate change (which have already been experienced locally through sea level rise and wildfires), reduce regional pollution, improve overall safety, and improve resilience to climate change.

(u) Costs for all-electric new construction have been shown to be on par with or less than those for mixed-fuel construction in the Half Moon Bay climate zone.

(v) On February 2, 2021, the City Council conducted a study session on Building Electrification and directed staff to prepare a draft ordinance for consideration by the community and City Council.

(w) The requirements specified in this Ordinance were the subject of stakeholder outreach from June through September 2021, including public meetings and individual stakeholder interviews.

(x) On September 25 and October 5, 2021, the City Council conducted additional study sessions to provide policy guidance on the draft Building Electrification ordinance.

(y) Half Moon Bay can help lead the climate change movement by implementing climate solutions to benefit all people in our community, particularly those that have been disadvantaged by air pollution and other environmental harms in our most vulnerable communities.

Section 2. Addition of Chapter 14.06 to Title 14 of the HALF MOON BAY Municipal Code.

The Half Moon Bay Municipal Code is hereby amended with the addition of Chapter 14.06, "Electrification of Buildings," which is adopted as set forth in Attachment B. Attachment B of this Ordinance is incorporated herein in its entirety.

Section 3. Severability. If any section, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and adopted this Ordinance and each section, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

Section 4. California Environmental Quality Act. The City Council finds that this Ordinance is exempt from CEQA under CEQA Guidelines section 15061(b)(3) on the grounds that the standards contained therein are more stringent than those set forth in the State Building Standards Code, and as a result there are no reasonably foreseeable adverse impacts or possibility that the activity in question may have a significant effect on the environment. Given Half Moon Bay's clean energy sources, this Ordinance's provisions requiring a shift from fuel gas

to electricity will not have any significant effect on the environment. In particular, all Half Moon Bay energy customers are automatically enrolled in the Peninsula Clean Energy (PCE) EcoPlus Service, which provides 100% Carbon Free Electricity. PCE generates electricity from 50% renewable sources, and all customers may opt into PCE's Eco100 tier, which generates energy from 100% renewable sources. There is no reasonable possibility that increasing the City's reliance on these clean and renewable energy sources could have a significant 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. The foregoing determination is made by the City Council in its independent judgment.

Section 5. Publication. The City Clerk of the City of Half Moon Bay is hereby directed to publish this Ordinance, or the title hereof as a summary, pursuant to Government Code Section 36933, once within fifteen (15) days after its passage in the Half Moon Bay Review, a newspaper of general circulation published in the City of Half Moon Bay.

Section 6. Effective date. This Ordinance shall take effect and be in force on the thirtieth (30th) day from and after its final passage.

INTRODUCED at a regular meeting of the City Council of the City of Half Moon Bay, California, held on the ____ day of ____, 2021, by the following vote:

Ayes, Councilmembers: _____

Noes, Councilmembers: _____

Absent, Councilmembers: _____

Abstain, Councilmembers: _____

ATTEST:

Jessica Blair, City Clerk

Robert Brownstone, Mayor

Attachment A

Section 1. Findings: The City Council hereby finds the following facts to be true:

- A. Scientific evidence has established that natural gas combustion, procurement and transportation produce significant greenhouse gas emissions that contribute to global warming and climate change;
- B. On June 18th, 2019, the Half Moon Bay City Council adopted a climate emergency declaration, calling for a mobilization effort to end citywide greenhouse gas emissions as quickly as possible;
- C. The City of Half Moon Bay is preparing its Climate Action and Adaptation Plan to, at minimum meet State emissions goals established in SB32 and EO B-55-18; and
- D. Substituting electric systems in new buildings fueled by clean energy supplied by Peninsula Clean Energy is linked to significantly lower greenhouse gas emissions and is cost competitive because the most cost-effective time to integrate electrical infrastructure is in the design phase of a building project because building systems and spaces can be designed to optimize the performance of electrical systems and the project can take full advantage of avoided costs and spaces requirements from the elimination of natural gas piping and venting for combustion air safety;
- E. The additions and modifications to the California Building Standards Code listed below are reasonably necessary because of the following local climatic, geologic and topographical conditions:
 1. The City limits of Half Moon Bay includes and borders areas that are considered by the State Fire Hazard Severity zone mapping system to be of High and Very High fire hazard. As such, the City is extremely vulnerable to wildfires. Human activities releasing greenhouse gas into the atmosphere cause increases in worldwide average temperature, drought conditions, vegetative fuel, and length of fire seasons, all of which have the potential to affect Half Moon Bay;
 2. Half Moon Bay is within the Coastside Fire Protection District, which is located within a high activity seismic Zone 4. The San Andreas Fault, as well as faults that are not fully charted, are within immediate boundaries of the District. The seismic geological conditions present a very severe potential for multiple fires, major breakage of water mains, major breakage of natural gas mains, multiple electrical power failures, multiple collapsed structures, large number of calls for emergency medical aid, all of which may occur simultaneously during a seismic event;
 3. In the event of a natural disaster such as earthquake or fire, the natural gas infrastructure in and around the City of Half Moon Bay presents risks to the life and safety of residents and first responders. Moreover, the electric grid system

can be brought back online more swiftly than the natural gas pipeline when the community is recovering from such an event;

4. Half Moon Bay is situated along the Pacific Coastline and the potential impacts of sea level rise are anticipated to increase the City's exposure to shoreline hazards. Human activities releasing greenhouse gas into the atmosphere contribute to sea level rise. Rising sea levels are likely to affect the amount of area in the City at risk of coastal flooding, the rate of erosion along the shoreline and bluffs, the area of the City's tsunami inundation zone, and potential seawater intrusion into riparian systems and groundwater supplies. Loss of shoreline due to rising waters may also threaten the stability of coastal habitats, recreation areas, public access, and infrastructure; and
5. It is reasonably necessary to require buildings to produce renewable, low-carbon electricity and to reduce energy consumption through efficient design in order to reduce the effects of climate change (which have already been experienced locally through sea level rise and wildfires), reduce regional pollution, improve overall safety, and improve resilience to climate change.

Based on the above facts, the City Council finds that Half Moon Bay's local, geological, topographical, and climatic conditions require amendments to the California Building Standards Code to establish more restrictive conditions to reduce greenhouse gas emissions in new and existing buildings, thereby reducing the environmental and health hazards produced by the consumption and transportation of natural gas as summarized in the matrix included hereto in Section 2.

Section 2. Matrix of Justifications.

Matrix of Justifications for Electrification of Buildings (Half Moon Bay Municipal Code Chapter 14.06)		
Half Moon Bay Municipal Code Section(s)	Title	Justification (see Section 1)
14.06.030	Requirement for All-Electric Newly Constructed Buildings	1-5
14.06.040	Prohibition on Conversion to Mixed-Fuel Buildings	1-5
14.06.050	Major Remodels	1-5
14.06.060	Minor Remodels	1-5
14.06.070	New Appliances	1-5
14.06.080	Exchange of Appliances	1-5
14.06.090	Termination of Gas Services	1-5

Attachment B

Chapter 14.06 is hereby added to Title 14 of the Half Moon Bay Municipal Code to read as follows:

Chapter 14.06 ELECTRIFICATION OF BUILDINGS

Sections

14.06.010—Title

14.06.020—Definitions

14.06.030—Requirement for All-Electric Newly Constructed Buildings

14.06.040—Prohibition on Conversion to Mixed-Fuel Buildings

14.06.050—Major Remodels

14.06.060—Minor Remodels

14.06.070—New Appliances

14.06.080—Exchange of Appliances

14.06.090—Termination of Gas Service

14.06.100—Exceptions

14.06.110—Infeasibility Waiver

14.06.120—Appeal

14.06.130—Periodic Review

14.06.140—Violations

14.06.010 Title

This chapter shall be known as “Electrification of Buildings.”

14.06.020 Definitions

- A. “Accessory Dwelling Unit” shall have the same meaning as specified in Section 18.02.040 of the Half Moon Bay Municipal Code.
- B. “Affordable Housing” shall have the same meaning as specified in Section 18.02.040 of the Half Moon Bay Municipal Code.
- C. “All-Electric Building” or “All-Electric Design” is a building or building design that uses a permanent supply of electricity as the source of energy for all space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances, and has no Fuel Gas plumbing installed in the building.

- D. "All-Electric Conversion" shall mean the conversion of a Mixed-Fuel building to a building that uses a permanent supply of electricity as the source of energy for all space heating, water heating (including pools and spas), decorative uses and lighting, cooking appliances, clothes drying appliances, and in which any previously existing Fuel Gas plumbing connection is capped or decommissioned.
- E. "Building" shall have the same meaning as specified in Section 18.02.040 of the Half Moon Bay Municipal Code.
- F. "Commercial Greenhouse" shall have the same meaning as specified in Section 18.02.040 of the Half Moon Bay Municipal Code.
- G. "Dwelling Unit" shall have the same meaning as specified in Section 18.02.040 of the Half Moon Bay Municipal Code.
- H. "Electrically Pre-Wire" shall mean to install necessary electrical components to permit future conversion to electric appliances. The required Pre-Wiring measures shall include the following:
 - a. A dedicated circuit, phased appropriately, for each appliance, with a minimum amperage requirement for a comparable electric appliance (see manufacturer's recommendations) with an electrical receptacle or junction box that is connected to the electric panel with conductors of adequate capacity, extending to within 3 feet of the appliance and accessible with no obstructions. Appropriately sized conduit may be installed in lieu of conductors;
 - b. Both end of the conductor or conduit shall be labeled with the words "For Future Electric appliance" and be electrically isolated;
 - c. A circuit breaker shall be installed in the electrical panel for the branch circuit and labeled for each circuit (i.e., "For Future Electric Range") and;
 - d. All electrical components, including conductors, receptacles, junction boxes, or blank covers related to this section shall be installed in accordance with the California Electric Code.
- I. "Exchange of Appliances" shall mean the voluntary or mechanically necessary replacement of appliances for space heating or cooling, exterior heating, decorative uses and lighting, water heating (including pools and spas), cooking, clothes drying, and onsite generation of electricity (except where primarily fueled by onsite digestion of organic material or where onsite generation is only utilized during emergencies as backup generation) with other appliances.

- J. "Fuel Gas" shall be as defined in the California Plumbing Code Section 208.0 and the California Mechanical Code Section 208.0.
- K. "Junior Accessory Dwelling Unit" means a unit as defined in California Government Code Section 65852.22.
- L. "Major Remodel" means any alteration or addition of floor area to an existing building that is equal to or greater than **750 square feet**.
- M. "Minor Remodel" means any alteration or addition of less than **750 square feet** to an existing building.
- N. "Mixed-Fuel Building" means a building that uses Fuel Gas as fuel for space heating or cooling, exterior heating, decorative uses or lighting, water heating (including pools and spas), cooking appliances, clothes drying appliances, or onsite generation of electricity (except where primarily fueled by onsite digestion of organic material).
- O. "Mixed-Use Building" shall have the same meaning as specified for "Mixed Use" in Section 18.02.040 of the Half Moon Bay Municipal Code.
- P. "Newly Constructed Building" is a building that has never before been used or occupied for any purpose.
- Q. "Non-Residential Building" shall have the same meaning as specified in the California Energy Code Section 100.1.
- R. "Owner-Occupant" is a resident of a property who holds the title to that property.
- S. "Residential Building" means a building in which sleeping accommodation is provided for normal residential purposes and includes one or more family dwellings, including private garages of such buildings.
- T. "Reinstall" means to place or fix an existing appliance that had been previously removed from an existing building due to Minor Remodel or repair of the surrounding building area back into the same existing building to be used until the end of the appliance's useful life.

14.06.030 Requirement for All-Electric Newly Constructed Buildings

Newly Constructed Buildings shall meet the definition of an All-Electric Building and shall be designed using an All-Electric Design.

Exceptions:

1. This section shall not apply to development projects that have obtained vested rights pursuant to state law prior to the effective date of this Ordinance.

2. This section shall not apply under the following conditions:

1. A Coastal Development Permit, if required, has been issued and remains valid;
2. All building and related permits have been issued and remain valid; and
3. Construction has commenced prior to January 1, 2023.

Note: Buildings where construction has commenced after the effective date of this Ordinance but prior to January 1, 2023 shall Electrically Pre-Wire for future electric appliances in any location where a Fuel Gas appliance is installed.

3. New and existing Accessory Dwelling Units and Junior Accessory Dwelling Units that are attached or wholly within an existing Mixed-Fuel Residential Building may utilize an existing Fuel Gas appliance for water heating and space heating until January 1, 2045. For clarification, any new appliances installed in a new or existing Accessory Dwelling Unit or Junior Accessory Dwelling Unit must be powered by electricity only, pursuant to section 14.06.070.

14.06.040 Prohibition on Conversion to Mixed-Fuel Buildings

- A. Residential Buildings. No existing All-Electric Building may be converted into a Mixed-Fuel Building on or after the effective date of this Chapter.
- B. Non-Residential and Mixed-use Buildings. No existing All-Electric Building may be converted into a Mixed-Fuel Building on or after January 1, 2025.

14.06.050 Major Remodels

- A. Residential, Non-Residential and Mixed-Use Buildings. The entire Building shall be converted to All-Electric as part of any Major Remodel on or after January 1, 2025.

Exception: Basic maintenance projects including but not limited to window replacements, energy efficiency projects, dry rot repair, floor covering replacements, or additions/renovations of outdoor decks.

Note: Any conversion of existing space or added floor area associated with a new Accessory Dwelling Unit or Junior Accessory Dwelling Unit shall not be considered in the calculation of square footage for a Major Remodel of an existing structure.

- B. The requirements of this section shall apply at the time of completed building permit application.

14.06.060 Minor Remodels

- A. Residential Buildings and Mixed-Use Buildings. Existing Fuel Gas appliances may be Reinstalled and utilized until the end of their useful life, including during minor remodels. Upon Reinstallation, Fuel Gas appliance locations shall also be Electrically Pre-Wired for future electric appliance installation.
- B. The requirements of this section shall apply at the time of Minor Remodel, whether or not a building permit is required.
- C. The addition of a Junior Accessory Dwelling Unit, the conversion of existing floor space into an Accessory Dwelling Unit, or the addition of an attached Accessory Dwelling Unit that is less than 750 square feet qualifies as a Minor Remodel.

14.06.070 New Appliances

Any new appliances installed in an Existing Residential, Non-Residential, or Mixed-Use Building shall be powered by electricity only.

14.06.080 Exchange of Appliances

- A. Residential Buildings. On or after January 1, 2023, all Exchange of Appliances shall be to appliances powered by electricity only.
- B. Non-Residential and Mixed-Use Buildings. On or after January 1, 2025, all Exchange of Appliances shall be to appliances powered by electricity only.
- C. The requirements of this section shall apply at the time of Exchange of Appliances, whether or not a building permit is required.

14.06.090 Termination of Gas Service

No later than January 1, 2045, all buildings within Half Moon Bay shall be All-Electric Buildings or All-Electric Conversions and all Fuel Gas plumbing lines shall be capped and/or decommissioned.

14.06.100 Exceptions

- A. Existing Deed Restricted Affordable Housing shall be exempt from Section 14.06.040, 14.06.050, 14.06.070, and 14.06.080 until January 1, 2027.
- B. Where the Owner-Occupant is a participant in the PG&E CARE or FERA Program, that Owner-Occupant shall be exempt from Sections 14.06.050, 14.06.060, 14.06.070, and 14.06.080 until January 1, 2027.

- C. Existing Commercial Greenhouses shall be exempt from Sections 14.06.050, 14.06.060, 14.06.070, and 14.06.080 until January 1, 2030.
- D. Wastewater Treatment Facilities shall be exempt from this Chapter until January 1, 2045.
- E. The requirements of this Chapter shall not apply to the use of portable propane appliances for use outside of the building envelope, such as outdoor cooking, outdoor heating appliances, and emergency backup power generation.

14.06.110 Infeasibility Waiver

- A. Waiver. If an applicant for a permit for a Newly Constructed Building, Major Remodel, Minor Remodel, New Appliance or an Exchange of Fuel Gas Appliance believes that physical or technical circumstances exist that make it technically or physically infeasible to meet the requirements of this Chapter in part or in whole, the applicant may request an infeasibility waiver as set forth below. Financial considerations alone shall not be a sufficient basis for technical or physical infeasibility. In applying for an exemption, the burden is on the Applicant to show infeasibility.
- B. Application Process. An applicant may apply for an infeasibility waiver by submitting a written letter of justification for an infeasibility waiver as early as practicable. Where the project involves issuance of a Coastal Development Permit (CDP) the waiver request shall be filed concurrently and considered concurrently with the CDP. The applicant shall indicate in their letter of justification the maximum threshold of compliance he or she believes is feasible for the project and the circumstances that make it infeasible to fully comply with this Chapter. Circumstances that constitute infeasibility include, but are not limited to the following:
 1. There is conflict with another City regulation, such as those requiring historic preservation;
 2. There is a lack of commercially available materials, appliances, and/or technologies to comply with the requirements of this Chapter;
 3. Applying the requirements of this Chapter would effectuate an unconstitutional interference.
- C. Review of Exemption. Where the City Manager or his/her designee determines that it is infeasible for the applicant to fully meet the requirements of this Chapter based on the information provided, the City Manager or his/her designee shall determine the maximum feasible threshold of compliance reasonably achievable for the project and condition the approval accordingly. The decision of the City Manager or his/her designee shall be provided to the applicant in writing. If an exemption is granted but the City Manager or his/her designee determines that the applicant can still achieve a certain

threshold of compliance, the applicant shall be required to comply with this Chapter in all other respects and shall be required to achieve, in accordance with this Chapter, the threshold of compliance determined to be achievable by the City Manager or his/her designee.

- D. Final Determination. If the City Manager or his/her designee determines that it is reasonably possible for the applicant to fully meet the requirements of this Chapter, the request for an exemption shall be denied and the City Manager or his/her designee shall so notify the applicant in writing.
- E. Expiration. The City Manager or his/her designee shall not grant infeasibility waivers on or after January 1, 2045. All Infeasibility Waivers granted previously shall expire on January 1, 2045.

14.06.120 Appeal

- A. Any aggrieved Applicant may appeal the determination of the City Manager or his/her designee regarding the granting or denial of an exception or infeasibility waiver pursuant to this Chapter.
- B. Any appeal must be filed in writing with the City Clerk not later than fourteen (14) days after the date of the City's determination. The appeal shall state the alleged error or reason for the appeal.
- C. The appeal shall be processed and considered by the City Council in accordance with the provisions of the Half Moon Bay Municipal Code.

14.06.130 Periodic Review

- A. The City intends for all buildings to be fully electrified by 2045 and thus monitoring and managing implementation is necessary.
- B. The City Council shall review this Chapter in line with the triannual building code adoption cycle to ensure it is at least as stringent as State Code and to ensure progress under this Chapter is sufficient in conjunction with the City's Greenhouse Gas Emission Reduction Goals.

14.06.140 Violations

An owner of a building, a tenant and/or an agent representing the owner subject to this Chapter who fails to comply with any of requirements of this Chapter shall be subject to fines and penalties contained in Title 4 (Code Enforcement) and any other enforcement provisions authorized by the California Building Code or related Codes.