CITY COUNCIL AGENDA
SPECIAL MEETING
CITY OF HALF MOON BAY

TUESDAY, OCTOBER 5, 2021

REMOTE PARTICIPATION (SEE NEXT PAGE)

Robert Brownstone, Mayor
Debbie Ruddock, Vice Mayor
Joaquin Jimenez, Councilmember
Deborah Penrose, Councilmember
Harvey Rarback, Councilmember

5:00 PM

This agenda contains a brief description of each item to be considered. Those wishing to address the City Council on any matter not listed on the Agenda, but within the jurisdiction of the City Council to resolve, may come forward to the podium during the Public Forum portion of the Agenda and will have a maximum of three minutes to discuss their item. Those wishing to speak on a Public Hearing matter will be called forward at the appropriate time during the Public Hearing consideration.

Please Note: Anyone wishing to present materials to the City Council, please submit seven copies to the City Clerk.

Copies of written documentation relating to each item of business on the Agenda are on file in the Office of the City Clerk at City Hall and the Half Moon Bay Library where they are available for public inspection. If requested, the agenda shall be available in appropriate alternative formats to persons with a disability, as required by Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132.) Information may be obtained by calling 650-726-8271.

In compliance with the Americans with Disabilities Act, special assistance for participation in this meeting can be obtained by contacting the City Clerk's Office at 650-726-8271. A 48-hour notification will enable the City to make reasonable accommodations to ensure accessibility to this meeting (28 CFR 35.102-35.104 ADA Title II).

http://hmbcity.com/

SPECIAL REMOTE PARTICIPATION PROTOCOLS

This meeting will be held entirely by teleconference. All Councilmembers and staff will only participate via the Zoom platform using the process described below. The meeting is being conducted pursuant to recent amendments to the teleconference rules required by the Ralph M. Brown Act allowing teleconferencing during a proclaimed state of emergency when local officials have recommended social distancing (AB 361). The purpose of AB 361 is to provide the safest environment for the public, elected officials, and staff while allowing for continued operation of the government and public participation during the COVID-19 pandemic.

This meeting will be conducted via Zoom Webinar and live Spanish interpretation will be available within the Zoom platform. Members of the public are welcome to login into the webinar as Attendees. During any public comment portions, attendees may use the "raise your hand" feature and will be called upon and unmuted when it is their turn to speak. The meeting will also be streamed on Channel 27, on pacificcoast.tv, and on Facebook at www.facebook.com/cityofhalfmoonbay. Please click to join the webinar: https://us06web.zoom.us/j/99588947925 or join by phone at 669-900-9128, using Webinar ID 995-8894-7925.

CALL TO ORDER / ROLL CALL

1. STUDY SESSION

1.A BUILDING ELECTRIFICATION ORDINANCE STUDY SESSION (CONTINUED)

Staff Recommendation: Conduct follow-up study session on the Draft Building Electrification Ordinance and provide policy direction to staff regarding potential revisions to the April Draft Building Electrification Ordinance.

STAFF REPORT

ATTACHMENT 1

ATTACHMENT 2

ADJOURNMENT

BUSINESS OF THE COUNCIL OF THE CITY OF HALF MOON BAY

AGENDA REPORT

For meeting of: **October 5, 2021**

TO: Honorable Mayor and City Council

VIA: Bob Nisbet, City Manager

FROM: John Doughty, Public Works Director
Veronika Vostinak, Sustainability Analyst

TITLE: **BUILDING ELECTRIFICATION ORDINANCE STUDY SESSION (CONTINUED)**

RECOMMENDATION:
Conduct follow-up study session on the Draft Building Electrification Ordinance and provide policy direction to staff regarding potential revisions to the April Draft Building Electrification Ordinance.

FISCAL IMPACT:
There is no fiscal impact associated with this study session. Implementation of an Ordinance will result in direct and indirect costs to property owners and tenants which are discussed in more detail within Attachment No. 1 (September 21, 2021 Staff Report). Costs will vary depending upon the policy direction, availability of funding assistance, individual properties, and implementation timing.

STRATEGIC ELEMENT:
This action supports the Infrastructure and Environment and Healthy Communities and Public Safety Elements of the Strategic Plan.

BACKGROUND:
The City Council conducted a community study session on building electrification policy opportunities on February 2, 2021. Following community input, the City Council directed staff to prepare a draft ordinance that addressed the following policy areas:

1. No new Fuel Gas hookups; all new construction (residential and commercial) must be built all-electric
2. Any appliance that is replaced within an existing building must be replaced with an electric alternative
3. All Fuel Gas lines must be capped and/or decommissioned by January 1, 2045

4. Increased requirements for photovoltaic (PV) systems, back up batteries and electric vehicle (EV) charging

A draft ordinance was prepared and released on April 22, 2021 (Attachment 2). Consistent with Council direction, the City initiated a robust public outreach effort between its release and September 15, 2021.

On September 21, 2021, the City Council conducted a community study session to receive a report on community feedback on the draft ordinance. At the study session, more than 20 speakers expressed their opinion on the proposed Ordinance, demonstrating a wide range of opinions and concerns. Due to time constraints, the City Council had limited time to discuss policy issues and formulate recommended changes to the draft ordinance. City Council directed staff to return on October 5, 2021 for continuation of the study session and policy discussion. Staff is including the September 21st staff report and background material as Attachment 1 to this report.

DISCUSSION:

The September 21st study session provided valuable insight into the issue and the diversity of opinion among residents, business owners and the general public. Unfortunately, time constraints significantly limited discussion by the City Council. Our hope is to utilize this study session as a means to reach Council consensus on policy issues.

We are suggesting a staff facilitated process in which we walk the community and City Council through major policy decision points necessary to update the draft ordinance and ready the document for introduction. Staff is recommending we begin with a guided conversation on broad policy options and proceed to more focused policy options based upon response to the broad policy issues. For example, if the City Council indicates a desire to not address retrofit of existing commercial uses, there is no need to discuss details of how the ordinance would address implementation.

Broad policy questions will focus on three primary policy questions:

a) Should the ordinance continue to require electrification of all new residential and non-residential buildings/tenant spaces?
b) Should ordinance include provisions to phase out gas service and installation of new gas meters?
c) Should the ordinance include provisions for retrofit of residential and/or non-residential buildings?

Once clear direction on these broad policies has been established, staff will then proceed to help guide the Council through a discussion on more detailed policy questions based on that direction. Staff will track City Council direction live, through screen sharing, so each Councilmember and the public will be able to easily track consensus among the City Council. At the end of the study session staff will ask the City Council to affirm direction or request the

issue be continued to a future meeting for further deliberation. If staff receives affirmation on policy issues, we anticipate being able to return to City Council with a revised Draft Building Electrification Ordinance on November 16, 2021. As with any ordinance, the City Council can choose to make additional revisions at that time. Depending on the nature of revisions, the ordinance may need to return to a future agenda for introduction.

ATTACHMENTS:

1. Staff Report from Building Electrification Study Session (September 21, 2021)
2. Draft Building Electrification Ordinance (April 22, 2021)

BUSINESS OF THE COUNCIL OF THE CITY OF HALF MOON BAY

AGENDA REPORT

For meeting of: **September 21, 2021**

TO: Honorable Mayor and City Council

VIA: Bob Nisbet, City Manager

FROM: John Doughty, Public Works Director
Veronika Vostinak, Sustainability Analyst

TITLE: **BUILDING ELECTRIFICATION ORDINANCE STUDY SESSION**

RECOMMENDATION:
Conduct a study session on the Draft Building Electrification Ordinance, and based upon the report and community feedback, provide staff direction regarding any revisions to the Building Electrification Ordinance in advance of ordinance introduction.

FISCAL IMPACT:
There is no fiscal impact associated with this study session. Implementation of an Ordinance will result in direct and indirect costs to property owners and tenants which are discussed in more detail within the report. Costs will vary depending upon the policy direction, availability of funding assistance, individual properties, and timing.

STRATEGIC ELEMENT:
This action supports the Infrastructure and Environment and Healthy Communities and Public Safety Elements of the Strategic Plan.

BACKGROUND:
California continues to lead the fight against climate change. The State has established two goals to drastically reduce Greenhouse Gas (GHG) emissions throughout the State: 1) reduce GHG by 40-percent of 1990 levels by 2030; and 2) reach carbon neutrality by 2045. The effort to fight climate change is delegated to State agencies, regional planning/transportation agencies and local governments like Half Moon Bay and San Mateo County.

In 2017, building energy accounted for 48% of GHG emissions generated within the City limits of Half Moon Bay. Eighty (80) percent of these emissions are due to the combustion of Fuel Gas (namely natural gas) in buildings. The elimination of Fuel Gas usage within buildings will encourage the strategic decommissioning of natural gas infrastructure and reduce the associated methane leakage. Although methane leakage is not currently accounted for in Half Moon Bay's GHG emission inventory, it is nevertheless a significant contributor to climate

change because methane is the most potent GHG, trapping 28-36 times more heat that carbon dioxide over a 100-year period.[1]

Based upon the most recent GHG inventory and historic development trends, Half Moon Bay will not likely achieve its GHG emission reduction goals by 2030 solely by addressing Fuel Gas in new construction. Because 97% of electricity customers in Half Moon Bay receive GHG-free electricity from Peninsula Clean Energy, replacing Fuel Gas appliances with efficient electric alternatives in existing buildings provides an opportunity to drastically reduce GHG emissions in Half Moon Bay. As such, staff is continuing to recommend Fuel Gas reductions in existing buildings as well as in new construction. Based upon community input, the City Council may wish to consider alternative or additional actions to meet 2030 GHG goals.

Building electrification efforts are also linked to improved indoor air quality and public health for the community. With Californians spending up to 87% of time indoors[2], indoor air pollution can be an important determinant of human health, especially for children. A meta-analysis found children in homes with gas stoves have a 42% increased risk of experiencing asthma symptoms and a 24% increased risk of being diagnosed with asthma.[3] Additionally, Gas pipelines are vulnerable to over-pressurization, earthquakes, and fires. Gas appliances and associated infrastructure increase the risk of explosion and/or fire in the event of a seismic event. California is one of the most seismically active areas in the United States.

For these reasons and others, drafting Reach Codes for City Council consideration was listed as a key policy action for FY 20-21 in the City's Sustainability Implementation Plan adopted in September 2020.

To that end, staff held a study session with the City Council on February 2, 2021. A draft ordinance based on Council direction from the study session was published on April 22, 2021 (**Attachment 1**). As currently written, the draft Ordinance would require:

1. No new Fuel Gas hookups; all new construction (residential and commercial) must be built all-electric
2. Any appliance that is replaced within an existing building must be replaced with an electric alternative (e.g., heat pump water heater, induction stove, etc.)
3. All Fuel Gas lines must be capped and/or decommissioned by January 1, 2045
4. Increased requirements for photovoltaic (PV) systems, back up batteries and electric vehicle (EV) charging

Following the publication of the draft Ordinance, staff launched an outreach effort beginning in June that has culminated in tonight's study session. Staff has performed the following activities to collect stakeholder feedback and increase awareness of the proposed Ordinance:

[1] https://www.epa.gov/ghgemissions/understanding-global-warming-potentials
[2] https://pubmed.ncbi.nlm.nih.gov/11477521/
[3] https://academic.oup.com/ije/article/42/6/1724/737113

- One-on-one meetings, phone calls, and emails with stakeholders
- Survey cards sent to all Half Moon Bay hotels and restaurants
- Online survey for residents and businesses (English and Spanish)
- Presentations to special interest groups such as the San Mateo County Association of Realtors and the Half Moon Bay Chamber of Commerce
- In-person/Zoom hybrid workshop with Senior Coastsiders (July 14th, 6pm with 6 attendees), recording sent to Evergreen Coastsiders listserv
- Zoom Workshop with Half Moon Bay Chamber of Commerce and Peninsula Clean Energy (August 12th, 2pm with 60+ attendees), recording published on City website
- Tabling at Make it Main Street Festival (August 5, 2021)
- Social media posts (Twitter, Facebook, Instagram, NextDoor)
- City eNews (1,359 subscribers), Sustainability Source Newsletter (116 subscribers), Building Electrification listserv (1,875 subscribers)

All written comments and survey responses received through September 15, 2021 are included as **Attachment 2** to this staff report.

DISCUSSION:

While many jurisdictions in California and throughout the United States are considering policies to reduce and/or eliminate Fuel Gas use in buildings, staff is not aware of any adopted policies that require electrification retrofits for existing buildings. A matrix outlining building electrification policies that have been adopted or are being seriously discussed in California is provided as **Attachment 3** to this staff report.

While building electrification measures can have a significant positive impact on the City's GHG emissions and the health and safety of the Half Moon Bay community, there are some potential impacts that should be considered and/or mitigated. A summary of comments and requested exemptions have been outlined below.

Stakeholder Comments

In general, comments received from both residents and businesses regarding the proposed requirements for all-electric new construction and expanded EV/PV requirements were supportive. As such, this report will focus on feedback received regarding provisions addressing electrification of existing buildings, along with staff responses

Reliability of Electricity/Impact to Electrical Grid

Many stakeholders expressed concern about switching to all-electric buildings due to the lack of power-reliability on the coast and questioned if PCE/PG&E would be able to accommodate the added load of full building electrification and EV charging. Some have referenced past PSPS events as an example.

Staff Response: Staff has had multiple conversations with PG&E and PCE representatives regarding the proposed Building Electrification Ordinance and neither entity has expressed concern in meeting the anticipated demand that would result from electrifying new and existing buildings pursuant to the Ordinance. PCE and PG&E are eager to partner with Half Moon Bay to ensure planning for building electrification efforts is as equitable and efficient as possible.

Further, staff does not believe Fuel Gas will provide significant resilience during prospective power outages, as many new Fuel Gas appliances require electricity to start. Those concerned about power reliability may choose to invest in emergency power generation such as gas-powered generators and PV with back-up batteries. Both options would still be allowed under the proposed Ordinance.

Increase of Unpermitted Work

There are concerns that the proposed building electrification ordinance would not be effective and/or may have a negative effect on the rate of permit compliance. There is concern that fewer individuals would seek permits for appliance replacements, and that individuals would have gas appliances installed despite the Ordinance. Without permits, these replacements may not meet Code requirements and represent a potential safety hazard.

Staff Response: Staff shares this concern. Currently, permits are only required to replace water heaters and HVAC systems and permit compliance for these replacements is generally low, about 10% of actual installations.

Changes to the local building code and/or permit compliance programs could be made to help increase permit compliance. This is a policy consideration for City Council. Possible opportunities to mitigate this concern are outlined in the "Policy Considerations" section of this staff report.

Home Energy Score

Some residents have suggested adding a requirement to include a Home Energy Score or Energy Efficiency Audit at the time of building sale or transfer, similar to requirements seen in Piedmont and Berkeley. These Home Energy Scores or Energy Efficiency Audits have been compared to MPG ratings for vehicles and are a tool that may help transition the market to placing appropriate value on climate-friendly homes and buildings.

Staff Response**:** Policies that require home energy scores or audits are very new and it's unclear if or how these programs have stimulated voluntary energy efficiency upgrades to date. Due to the current housing market conditions and low availability of housing in Half Moon Bay, Staff does not believe requiring these programs would increase the City's ability to achieve GHG emission reduction goals for 2030 and/or 2045. The program would only increase costs without any tangible benefit.

Community Requested Exemptions

As drafted, exemptions would only be granted in the case of physical or technical infeasibility. Stakeholders identified additional exemptions outlined below.

Residential Stoves and Indoor Fireplaces

Many individuals strongly believe that the performance of Fuel Gas powered stoves and fireplaces is superior and cannot be compared to electric alternatives.

Staff Response: Staff believes allowing this exemption would not impact the City's ability to meet 2030 goals but would negatively impact 2045 goals. This is a policy consideration for City Council. Possible opportunities to mitigate this concern are outlined in the "Policy Considerations" section of this staff report.

Greenhouses

Greenhouse horticulture is an important industry to Half Moon Bay. In these applications, Fuel Gas is used to heat greenhouses, and the large boilers used to heat greenhouses are currently very expensive to retrofit. Additionally, the increased cost of electricity may add significant cost burden to these businesses, especially in the short-term. Due to the high energy usage, solar may not be a viable option to decrease the electricity costs for these businesses.

Staff Response: Staff believes this exemption would not impact the City's ability to hit 2030 goals but would negatively impact 2045 goals. This is a policy consideration for City Council, which is outlined in the "Policy Considerations" section of this staff report.

Commercial Kitchens

Some restaurants have expressed concerns regarding the timing of the proposed transition from Fuel Gas to electricity. They indicate that they are unfamiliar with induction stovetops in a commercial setting and are concerned about food preparation times, staff training, and the possible need to change menu items to accommodate this new cooking method. Many restaurants, however, stated this change would be manageable with added time for planning and to gain familiarity with these appliances.

There are some specialty cooking appliances such as bakery/pizza ovens that rely on a flame for texture and/or flavor of the food prepared. It is unclear if these cooking methods would be able to be replicated by an electric alternative—staff has not identified an alternative to-date. If the Ordinance does not include a full exemption (or delay to implementation) for commercial kitchens, stakeholders requested that Council provide a limited exemption where there is a specific business need for cooking with a flame.

Staff Response: Staff believes this exemption would not impact the City's ability to meet 2030 goals but would negatively impact 2045 goals. This is a policy consideration for City Council. Possible options to mitigate this concern are outlined in the "Policy Considerations" section of this staff report.

Costs

During the outreach period, the implementation cost has been identified as a major concern. As drafted, exemptions would only be granted in the case of physical or technical infeasibility, and financial considerations would not be a sufficient basis for an exemption. Building electrification retrofits will be an added cost for many building owners (including the City) and businesses. Tenants may ultimately bear much of the cost via increased rents. Staff is not aware of any adopted ordinances or policies in the Bay Area or State that imposes electrification measures for existing buildings. As such, the exact costs associated with large scale building retrofits are largely unknown.

Without additional programs for funding, building electrification policies focused on existing buildings may disproportionately impact vulnerable populations. Currently, electricity is about three times (3X) more expensive than Fuel Gas. New, efficient electric technology is currently more expensive than gas-powered appliances, and additional expenses may be incurred to retrofit safely. These costs may be even higher in buildings that were not prewired for electric appliances, in older buildings, and in those with deferred maintenance.

However, the costs associated with future climate change impacts are also unknown but are anticipated to be significant. In order for California to achieve its bold GHG emission reduction goals, Fuel Gas in existing buildings will need to be addressed, and some level of building electrification retrofits is likely to be inevitable. Additionally, as cities throughout the PG&E territory move away from Fuel Gas in buildings, it is expected that Fuel Gas rates will increase as there will be fewer ratepayers to share the cost of Fuel Gas distribution infrastructure maintenance and upgrades. This increasing cost for Fuel Gas will likely make the transition to electricity more cost-effective. However, lower-income households may bear the majority of the cost burden of this transition, as these families will be less likely to afford retrofits to electric appliances, and may be left using Fuel Gas at a time when it is relatively expensive.

Residential Costs

Electrifying existing buildings will require additional expenses for building owners (including the City) and renters. Many stakeholders were concerned about how they might afford the added expense of new appliances and any associated electrical work that may be required to retrofit their homes. Residents have requested expanded exemptions for exceptional circumstances.

Staff Response: While the cost will vary widely depending on each individual situation and specific needs, staff has created an estimate of retrofit costs for individual appliances in residential buildings. It is estimated the incremental cost to retrofit water heating, space heating, cooking, and clothes drying combined from gas to electric ranges from around $7,000-$20,000 with an additional $4,000 - $6,000 if an electrical panel needs to be replaced. Regional financial incentives and low/no cost financing options exist today. More information on cost estimates, current incentives, and low/no cost financing options are outlined in **Attachment 4.**

This is a policy consideration for City Council. Possible options to mitigate this concern are outlined in the “Policy Considerations” section of this staff report.

Non-Residential Costs
The Chamber of Commerce and many businesses have expressed the need for additional time to plan for retrofit requirements due to the extensive cost and availability of technology, suggesting a delay to the retrofit requirement for commercial buildings by 3-7 years. Additionally, businesses have requested expanded exemptions for exceptional circumstances.

Staff Response: Commercial appliances are much more specialized and therefore electric equivalents are more limited. It is expected that commercial electric equivalents will become more accessible with time. Staff believes the City could still reach 2030 and 2045 GHG reduction goals if non-residential buildings are given more time to plan and implement. However, these delays would make it more difficult to hit 2030 GHG reduction goals. If non-residential provisions are delayed, staff recommends that small commercial tank water heater replacements (≤120 Gallon) and any HVAC additions or replacements that involve air conditioning units not be included as exempt activities for non-residential buildings.

This is a policy consideration for City Council. Possible options to mitigate this concern are outlined in the "Policy Considerations" section of this staff report.

Public Facilities Costs
Staff has estimated the retrofit of all City Facilities would be approximately $90,000. The Ordinance would apply to most utility and public service agencies. An exemption will likely be needed for wastewater treatment facilities as staff is not aware of sufficient electric technology options for this use.

Per State law, the Ordinance would not apply to public educational facilities.

Potential Policy Considerations
Building electrification represents a major step toward GHG reduction and community resilience. While it is expected the State will mandate some of these changes in the future, the timeline for such mandates is unknown and the circulated draft ordinance represents an extremely ambitious policy document. Given these factors and the input of the community, the City Council may wish to consider revisions to the ordinance. Staff has provided a number of the potential policy considerations. Staff will be prepared to provide more detail and recommendations to City Council as part of the Study Session process. As noted, the majority of the potential changes requested or highlighted by stakeholders are policy changes that only City Council can weigh.

Note: In order to allow for strategic decommissioning of existing gas lines and to stay on track to hit 2045 GHG emission reduction goals, staff recommends that any new proposed exemptions (like all other exemptions currently proposed in the draft ordinance) expire on January 1, 2045.

Potential Changes to New Construction Provisions in the Draft Ordinance
No changes recommended.

Potential Changes to Existing Residential Provisions in the Draft Ordinance

1. Consider delaying application of electrification requirements to existing residential buildings until 2030[4] with the exception of water heaters 120 gallons or less in size and additions/replacement of air conditioning
2. Consider adding exemptions for Fuel Gas stoves, ovens, and/or fireplaces through 2030[4]
3. Grandfather existing stoves, ovens and/or fireplaces until 2030[4]
4. Consider additional provisions to ensure compliance
    a. Amend local building and model codes to require permits for new/replacement appliances
    b. Consider requiring certification of at the time of sale/change of occupancy of a dwelling unit
5. Consider expanded exemptions for exceptional circumstances

Potential Changes to Existing Non-Residential Provisions in the Draft Ordinance

1. Consider delaying application of electrification requirements to existing non-residential buildings until 2025[4] with the exception of water heaters 120 gallons or less in size and additions/replacements of air conditioning
2. Consider adding exemptions for Fuel Gas stoves/ovens in commercial kitchens
    a. All until 2030[4]
    b. All until 2045[4]
    c. Only for those demonstrating specific business need (such as baking and pizza ovens)
3. Consider adding exemption for greenhouses
    a. All until 2030[4]
    b. All until 2045[4]
4. Consider expanded exemptions for exceptional circumstances

ATTACHMENTS:

1. Draft Building Electrification Ordinance (April 22, 2021)
2. Comments and Survey Responses (received as of September 15, 2021)
3. Building Electrification Policy Comparison Matrix
4. Cost Analysis

[4] Date could be replaced with any date between ordinance effective date and 2030/2045

ORDINANCE NO. C-2021-____

ORDINANCE AMENDING THE HALF MOON BAY MUNICIPAL CODE TO ADDING A NEW SECTION 14.06 TO CHAPTER 14 ENTITLED "ELECTRIFICATION OF BUILDINGS" AND ADOPTING CEQA EXEMPTION FINDINGS

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

Section 1. Findings: The City Council finds and declares as follows:

WHEREAS, 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 Code") that are reasonably necessary because of local climatic, geological, or topographical conditions; and

WHEREAS, the Half Moon Bay City Council expressly declares that these proposed amendments to the Building Code are reasonably necessary because of local climatic, topographical, and geological conditions; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

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WHEREAS, 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

WHEREAS, 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; and

WHEREAS, without significant reductions in Fuel Gas combustion within buildings, Half Moon Bay is unlikely to achieve its greenhouse gas reduction targets; and

WHEREAS, the City Council has identified electrifying buildings as a necessary strategy to achieve the City's 2030 and 2045 greenhouse gas reduction targets; and

WHEREAS, Half Moon Bay primarily receives electricity from Peninsula Clean Energy, whose electricity portfolio is 100% greenhouse gas free as of January 2021, prioritizing local renewable generation and local green jobs development; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

DRAFT

WHEREAS, 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;

WHEREAS, the requirements specified in this Ordinance were the subject of stakeholder outreach from June through September 2021, including public meetings and individual stakeholder interviews; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, 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; and

WHEREAS, this Ordinance is exempt from the California Environmental Quality Act ("CEQA") under CEQA Guidelines sections 15061(b)(3) and 15308 on the grounds that the regulatory 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.

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

SECTION 1. Recitals. The City Council finds and determines the foregoing recitals are true and correct and are hereby incorporated herein as findings and determinations of the City Council.

SECTION 2. Addition of Section 14.06 to Chapter 14 of the HALF MOON BAY Municipal Code. Half Moon Bay Municipal Code Chapter 14.06 is hereby added to read as follows:

Section 14.06

ELECTRIFICATION OF BUILDINGS

14.06.010 Applicability.

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A. The requirements of this Chapter shall apply at the time of building permit application for all Newly Constructed Buildings, as defined in Section 14.06.020 F.

B. The requirements of this Chapter shall apply at the time of building permit application for Exchange of Gas Appliances, as defined in Section 14.06.020(C)

C. 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 and outdoor heating appliances.

14.06.020 Definitions.

A. "Accessory Dwelling Unit" shall have the same meaning as specified in Section 65852.2 of the California Government Code.

B. "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.

C. "Exchange of Fuel Gas Appliances" shall mean the voluntary or mechanically necessary replacement of appliances fueled by Fuel Gas 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) with other appliances fueled by Fuel Gas.

D. "EV Capable" means a parking space linked to a listed electrical panel with sufficient capacity to provide at least 110/120 volts and 20 amperes to the parking space. Raceways linking the electrical panel and parking space only need to be installed in spaces that will be inaccessible in the future, either trenched underground or where penetrations to walls, floors, or other partitions would otherwise be required for future installation of branch circuits. Raceways must be at least 1" in diameter and may be sized for multiple circuits as allowed by the California Electrical Code. The panel circuit directory shall identify the overcurrent protective device space(s) reserved for EV charging as "EV CAPABLE." Construction documents shall indicate future completion of raceway from the panel to the parking space, via the installed inaccessible raceways. The parking space shall contain signage with at least a ½" font adjacent to the parking space indicating the space is designated as EV Capable for future connection of infrastructure at the designated voltage and amperage levels.

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E. “Electric Vehicle Charging Station (EVCS)” means a parking space that includes installation of electric vehicle supply equipment (EVSE) with a minimum capacity of 30 amperes connected to a circuit serving a Level 2 EV Ready Space. EVCS installation may be used to satisfy a Level 2 EV Ready Space requirement. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the California Electrical Code, Article 625.

F. “Fuel Gas” shall be as defined in the California Plumbing Code Section 208.0 and the California Mechanical Code Section 208.0.

G. “Level 1 EV Ready Space” means a parking space served by a complete electric circuit with a minimum of 110/120 volt, 20-ampere capacity including electrical panel capacity, overprotection device, a minimum 1” diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled “Electric Vehicle Outlet” in at least a ½” font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE).

H. “Level 2 EV Ready Space” means a parking space served by a complete electric circuit with minimum 208/240 volt, 40-ampere capacity including electrical panel capacity, overprotection device, a minimum 1” diameter raceway that may include multiple circuits as allowed by the California Electrical Code, wiring, and either a) a receptacle labelled “Electric Vehicle Outlet” in at least a ½” font adjacent to the parking space, or b) electric vehicle supply equipment (EVSE) with a minimum output of 30 amperes.

I. “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 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 Fuel Gas equipment for such uses.

J. “Newly Constructed Buildings” shall mean any building including additions representing 50-percent or more of the existing floor area that: (1) has obtained a Coastal Development Permit from the City on or after the effective date of this Chapter and has never before been used or occupied for any purpose, (2) has obtained a valid land use entitlement from the City before the effective date of this Chapter but has failed to file for a development-related permit within one (1) year from the effective date of this Chapter and has never before been used or occupied for any purpose.

14.06.030 Requirement for All-Electric Construction.

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

B. Newly Constructed Buildings must also meet the following requirements:

    a. Photovoltaic (PV) System sufficient to meet a minimum 75% of the building's required electric energy demand.

    b. Backup battery storage sufficient to meet a minimum of 24-hours of the building's electric energy demand.

    c. Electric Vehicle (EV) charging capability as follows:

        i. New one- and two-family dwellings and townhouses. For each dwelling unit, install an EVCS and a Level 1 EV Ready Space.

        ii. New multifamily dwellings. For each dwelling unit, install one Level 2 EV Ready Space for each of the first 20 dwellings. After first 20 dwellings, install 25% Level 2 EV Ready Spaces and 75% Level 1 EV Ready Spaces for each of the remaining dwellings.

C. Conversion to Mixed-Fuel Buildings. The Building Official shall not issue permits that would convert an All-Electric Building into a Mixed-Fuel Building where the permit application is submitted on or after the effective date of this Chapter.

D. Exchange of Fuel Gas Appliances. The Building Official shall not issue permits to replace Fuel Gas powered appliances with Fuel Gas powered appliances where the application is submitted on or after the effective date of this chapter.

E. Conversion to All-Electric Buildings. No later than January 1, 2045, all buildings within Half Moon Bay shall be converted to All-Electric Buildings and all Fuel Gas plumbing lines shall be capped and/or decommissioned. The City shall establish procedures for conversion no later than January 1, 2044.

F. The requirements of this Section shall be deemed objective planning standards under Government Code section 65913.4 and objective development standards under Government Code section 65589.5.

G. The requirements of this Chapter shall not affect any other state or local requirement related to the delivery of affordable housing, including but not limited to state and local

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density bonus requirements under Government Code Section 65915 et seq. and O.M.C. Chapter 17.107.

14.06.040 Exceptions.

The requirements of this Chapter shall not apply to the following:

A. Accessory Dwelling Units that are attached to a Mixed-Fuel single-family or multi-family building/unit except that cooking and drying appliances shall be electric.

B. Development projects that have obtained vested rights prior to the effective date of this Ordinance.

14.06.050 Infeasibility Waiver.

A. Waiver. If an applicant for a permit for a Newly Constructed Building 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 exemption as set forth below. Financial considerations 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 for a permit for a Newly Constructed Building or an Exchange of Fuel Gas Appliance may apply for an infeasibility waiver by submitting a written letter of justification for an exemption at the time of application for a coastal development permit or where none is required, in conjunction with building permit application. The applicant shall indicate in his or her letter of justification the maximum threshold of compliance he or she believe 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. If the Director of Community Development determines that it is infeasible for the applicant to fully meet the requirements of this Chapter based on the information provided, the Director shall determine the maximum feasible threshold of compliance reasonably achievable for the project. The decision of the Director shall be

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provided to the applicant in writing. If an exemption is granted but the Director 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 Director.

D. Final Determination. If the Director of Community Development 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 Director shall so notify the applicant in writing.

E. Referral to Planning Commission. The Director of Community Development may refer any exemption application involving a Coastal Development Permit to the Planning Commission.

F. Expiration. The Director of Community Development shall not grant infeasibility waivers on or after January 1, 2045. All Infeasibility Waivers granted previously shall expire on January 1, 2045.

14.06.060 Appeal.

A. Any aggrieved Applicant may appeal the determination of the Director of Community Development 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 Community Development Department not later than fourteen (14) days after the date of the Director's determination. The appeal shall state the alleged error or reason for the appeal.

C. The appeal shall be processed and considered by the Planning Commission and/or City Council in accordance with the provisions of the Half Moon Bay Municipal Code.

14.06.070 Periodic Review and Administrative Regulations.

The City shall review the requirements of this Chapter for ongoing consistency with California Building Standards Commission regulations under Title 24 and the Commission's triennial code adoption cycle and is also authorized to draft administrative regulations implementing requirements of this Chapter.

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14.06.080 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.

Section 3. 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. 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 4. 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 herby 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 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:

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_____ _____

Jessica Blair, City Clerk Robert Brownstone, Mayor

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