



**Frequently Asked Questions About
Half Moon Bay’s Building Electrification Ordinance**

Updated March 30, 2022

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What is Building Electrification?

Building Electrification describes the move from fuel gas-powered appliances — like furnaces, hot water heaters, and stoves that use natural gas or propane — to clean, highly efficient electric appliances such as electric heat pumps, electric hot water heaters, and induction stoves. Fuel gas is natural or manufactured liquefied petroleum, or a mixture of these. This includes natural gas and propane.

Why adopt a Building Electrification Ordinance?

Nearly half of the greenhouse gas (GHG) emissions in Half Moon Bay come from energy use in buildings, with, 80% of those emissions are generated from fuel gas-powered energy. Switching residential and commercial buildings' energy sources away from fuel gas and toward electric appliances has the potential to significantly reduce the City's GHG emissions, and enhance indoor air quality, improve the environment and our local public health and safety, increase energy efficiency, lower overall energy use, and help the State achieve its SB32 GHG emissions reduction goals.

What does the Building Electrification Ordinance do?

Taking into consideration the public comments and feedback received, and direction from the City Council at various public meetings¹, the Building Electrification Ordinance:

- Requires all new construction to be electric-only – no gas or propane in new buildings (residential and commercial)
- Requires that fuel gas connections to most buildings in Half Moon Bay are capped and/or decommissioned by January 1, 2045

¹ Public Meetings discussing the ordinance were held on February 2, 2021; September 21, 2021; October 5, 2021; November 16, 2021; December 7, 2021; and December 21, 2021.



What is the status of the ordinance?

The City Council adopted the Building Electrification Ordinance on February 15, 2022 and became effective on March 17, 2022. Follow this [link](#) to view the Ordinance.

Ordinance Details (Residential)

How does the ordinance impact NEW residential buildings?

Any new residential building that receives building permits after March 17, 2022 **and** before January 1, 2023, needs to pre-wire for electric appliances in any area where a fuel gas appliance is intended to be installed.

Any new residential building that receives building permits **on or after** January 1, 2023 must be designed and built as an all-electric building and may not include any fuel gas appliances.

How does the ordinance impact EXISTING residential buildings?

The Ordinance does not apply to existing residential buildings except that the Ordinance:

- 1) Requires termination of gas services to most residences by 2045: Any fuel gas lines must be capped and/or decommissioned by January 1, 2045; and
- 2) Beginning March 17, 2022, any current all-electric residential building not be allowed to install any fuel gas appliances.

How does ordinance impact mobile home parks?

Mobile home parks and mobile homes themselves are regulated by the State of California and generally not by City Ordinances. The Building Electrification Ordinance does not apply to the mobile home parks or the mobile homes located within the park (including the Ordinance's requirement to cap and/or decommission fuel gas lines by 2045).

Ordinance Details (Non-Residential)

How does the ordinance impact NEW non-residential buildings?



Any new non-residential building that receives building permits after March 17, 2022 **and** before January 1, 2023, need to pre-wire for electric appliances in any area where a fuel gas appliance is intended to be installed.

Any new non-residential building that receives building permits **on or after** January 1, 2045 must be designed and built as an all-electric building and may not include any fuel gas appliances.

How does the ordinance impact EXISTING non-residential and Mixed-Use buildings?

Existing non-residential and mixed-use buildings are impacted by the Building Electrification Ordinance by requiring termination of gas services to non-residential and Mixed-Use buildings by 2045: Any fuel gas lines must be capped and/or decommissioned by January 1, 2045.

Does the ordinance apply to commercial greenhouses?

The ordinance exempts commercial greenhouses (new and existing) from electrification requirements until January 1, 2045.

Ordinance Details (Exceptions)

Does the Ordinance require electrification for appliance replacements?

No, the Ordinance does not include electrification requirements for individual appliance replacements other than for a minor or major remodel. If a fuel gas appliance needs to be replaced, it can be replaced with a fuel gas appliance.

Does the ordinance impact fuel-gas powered emergency generators?

No. fuel-gas powered emergency generators continue to be allowed under the Building Electrification Ordinance, until 2045.

Does the ordinance impact small, portable propane canisters?

No. Small, portable propane canisters such as those you would use to power outdoor grills, firepits, and space heaters continue to be allowed under the Building Electrification Ordinance.



Ordinance Process

What community outreach has been done regarding the Ordinance?

The City Council discussed the Ordinance during their public meetings on February 2, 2021; September 21, 2021; October 5, 2021; November 16, 2021; December 7, 2021; and December 21, 2021.

At the February 2, 2021 meeting, City Council directed staff to launch a community outreach effort to encourage and gather more input on this issue from the City's businesses and residents, to help ensure the public understands the proposal and to better determine the impacts of the policy. Between June and September of 2021, City staff conducted the following outreach activities:

- 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 14 - 6 attendees); recording sent to Evergreen Coastsiders listserv
- Zoom workshop with Half Moon Bay Chamber of Commerce and Peninsula Clean Energy (August 12 - 60+ attendees); recording posted on City website
- Information tabling at Make it Main Street Festival (August 5)
- Social media posts (Twitter, Facebook, Instagram, NextDoor)
- Information in City eNews (1,359 subscribers), Sustainability Source Newsletter (116 subscribers), Building Electrification listserv (1,875 subscribers)

Where can I find more information?

All information regarding the Building Electrification Ordinance, including copies of the most recent drafts, are posted on the [Building Electrification web page](#).

Who should I contact with questions and comments?



Questions and comments about the Half Moon Bay Building Electrification Ordinance should be directed to: Veronika Vostinak, Sustainability Analyst: sustainability@hmbcity.com or 650-750-2019.

Electricity vs Fuel Gas

Isn't electricity more expensive than fuel gas?

While electricity is more expensive per unit than fuel gas, electric appliances like heat pumps are generally more efficient and use less energy overall to run. The costs to operate will vary depending on the product chosen and consumer behavior.

Is electricity from the grid "clean?"

Peninsula Clean Energy (PCE)'s base service is 100% carbon-free as of January 2021. To learn more about PCE's power mix, please [visit the PCE website](#).

How reliable is the electric grid as compared to natural gas?

The natural gas grid and electric grid both experience service interruptions on occasion. In fact, during California's most likely natural disaster events - wildfires and earthquakes - utilities are supposed to turn the gas off. Additionally, many new fuel gas appliances require electricity to operate.

If 100% reliability is a goal for your home or project, electrification with battery and solar backup is the best option.

Does all-electric heating use a lot of energy and can it work in our cool climate?

All-electric heat pumps are highly efficient and effective in weather far colder than our typical local temperatures. Department of Energy studies show heat pump space heaters are highly efficient at as little as five degrees Fahrenheit. The California Energy Commission's cost effectiveness studies also show high efficiency of electric heat pumps.

Don't people prefer gas stoves?

There are people who prefer gas stoves. However, many may be unfamiliar with induction stoves (electric) which offer superior speed and control, maintain cool and safe surfaces while

cooking, and offer better indoor air quality. Induction stoves are increasing in popularity and are a great alternative to gas stoves.

Benefits of building electrification

What are the climate benefits of building electrification?

The State of California has adopted ambitious climate goals mandating the reduction of greenhouse gas (GHG) emissions by 40% (based on 1990 levels) by 2030² and to reach carbon neutrality by 2045.³

According to the most recent data, 49% of Half Moon Bay's GHG emissions come from energy use in buildings, with 80% of those emissions coming from fuel gas-powered energy. 97% of Half Moon Bay energy customers are receiving carbon-free electricity from PCE.

What are the safety and health benefits of Building Electrification?

Based on studies around risks related to fire and respiratory issues, electrification offers safety and health benefits.

Research indicates that natural gas is a major fire risk in the event of earthquake. The link between earthquakes and natural gas-triggered fires is well documented as an important secondary hazard risk within the studies published by the [California Seismic Safety Commission](#).

Natural gas use in the home is linked with asthma and other health risks:

- [EPA identifies indoor air quality as a significant health risk and gas appliances are listed as a point of concern](#)
- [2019 meta research links gas stoves and asthma](#)
- [2008 Johns Hopkins study linking gas stoves and asthma](#)
- Lawrence Berkeley Labs, California Energy Commission, and others have also produced similar studies
- Carbon monoxide (CO) from fuel gas use has been long deemed a risk, to the extent that [CO sensors are required in homes that burn fossil fuels](#)

² [Senate Bill 32](#) (2016)

³ [Executive Order B-55-18](#) (2018)