



Building Electrification: Requirements for New Construction

Occupancy Type	Natural Gas Prohibition	Reach Code (local amendments to the Energy Code)		Electric Vehicle (EV) Charging Requirements (local amendments to CALGreen)
	Covers newly constructed buildings with Land Use Permit applications submitted on or after January 1, 2020	Covers newly constructed buildings with Building Permit applications submitted on or after January 1, 2020		
		All-Electric Building Requirements	Mixed Fuel Building Requirements	
Single family, detached Accessory Dwelling Unit (ADU), two-family dwellings, and townhomes	Natural gas prohibited ¹	All-electric, solar PV ³	10 Total EDR compliance margin ⁴ , solar PV ³ , electric ready ⁵	One EV Charger Ready ⁶ space per dwelling unit with on-site parking
Low-rise multifamily (3 stories or less)	Natural gas prohibited ¹	All-electric, solar PV ³	10 Total EDR compliance margin ⁴ , solar PV ³ , electric ready ⁵	20% EV Charger Ready ⁶ , 80% "EV Spaces Raceway Equipped" ⁷
High-rise multifamily (4 stories or more)	Natural gas prohibited ¹	All-electric, solar PV	10% compliance margin ⁴ , solar PV, electric ready ⁵	20% EV Charger Ready ⁶ , 80% "EV Spaces Raceway Equipped" ⁷
Hotel/Motel	Natural gas prohibited ¹	All-electric, solar PV	10% compliance margin ⁴ , solar PV, electric ready ⁵	10% EVCS installed, 40% "EV Spaces Raceway Equipped" ⁷
Other Nonresidential ²	Natural gas prohibited ¹	All-electric, solar PV	10% compliance margin ⁴ , solar PV, electric ready ⁵	10% EVCS installed ⁸ , 40% "EV Spaces Raceway Equipped" ⁷

¹ Limited exceptions to Natural Gas Prohibition as described in BMC Sections 12.80.040 and 12.80.050.

² Newly constructed mixed-fuel buildings occupied for laboratory, industrial, or manufacturing uses are exempt from the 10% compliance margin of the Reach Code

³ Required by the 2019 California Energy Code Section 150.1(c)14

⁴ If a certified energy analyst prepares the Certificate of Compliance, the design receives a credit towards the compliance margin; additional prescriptive measures can be substituted in place of the compliance margin

⁵ Must provide electrical panel space, conductors or raceways, and bus bar capacity to support future electrification of natural gas appliances

⁶ An "EV Charger Ready" space is a parking space equipped with raceway, wiring, and power to support a future Level 2 EV charging station

⁷ An "EV Spaces Raceway Equipped" space is a parking space equipped with a raceway between an enclosed, inaccessible, or concealed area and an electrical service panel/subpanel

⁸ When 10 or more parking spaces are constructed



City of Berkeley Natural Gas Prohibition, Reach Code, and EV Charging FAQ

Why adopt these ordinances when state building codes are updated every three years?

These ordinances help Berkeley meet its Climate Action goals. Actions required by these ordinances will reduce greenhouse gas emissions (GHGs), which contribute to global climate change. These actions directly improve the lives of the Berkeley community by improving both indoor and outdoor air quality. Natural gas that is used to heat our homes, water, and for cooking is primarily made up of methane, a greenhouse gas that is 86 times more potent than carbon dioxide over a 20 year period. Furthermore, the infrastructure that supplies methane to buildings is associated with leaks, which reduce air quality and create hazards that are exacerbated during earthquakes and fire events.

All-electric construction is intended to eliminate the risks associated with natural gas, improve health and safety, and mitigate climate change. Operating all-electric buildings using clean, renewable electricity such as solar does not create GHGs

I'm opening up a brewing yeast laboratory in 2020. Will I be subject to the new ordinances?

If the laboratory will occupy a newly constructed building, the project may qualify for an exemption to the natural gas prohibition under BMC Chapter 12.80.040. The onus is on the applicant to prove the project will qualify for an exception. Laboratories are exempt from the compliance margin required for mixed fuel buildings by the reach code.

I'm building a detached ADU. Does the solar PV system need to be placed on the ADU being constructed?

While a solar PV system is required under the 2019 Energy Code for new single-family and low-rise residential construction, the system does not have to be installed on the newly constructed ADU. The solar PV system can be installed on the primary unit.

I plan on converting my detached garage to an ADU. Will the new natural gas prohibition or reach code apply? Is a solar PV system required?

An alteration (or an addition) of an existing building does not trigger the natural gas prohibition, reach code, or solar PV system requirement, even if the occupancy changes. However, if conversion of a detached garage includes demolition, the ADU will be subject to the natural gas prohibition, reach code, and solar PV system requirements. This is because the ADU would be considered a newly constructed building.

The company I work for is constructing a new building on their Berkeley parcel. Will they be required to install electric vehicle charging stations?

If the company is not required to construct new off-street parking spaces under the Zoning Code, and will utilize an existing parking lot, then EV charging requirements won't apply. However, if required to construct new spaces to satisfy zoning requirements, and the number of spaces required amounts to 10 or more, then the newly adopted EV charging standards will apply. In this case, 10% of the new spaces must have Level 2 electric vehicle charging stations (EVCS) installed, while 40% of the spaces must be equipped with raceways.