



San José Natural Gas Infrastructure Prohibition and Reach Code

Frequently Asked Questions

1. What buildings and requirements are covered under the new reach code and natural gas prohibition ordinances?

San José’s Natural Gas Infrastructure Prohibition (i.e. gas prohibition) and Reach Code Ordinances apply to buildings newly constructed on or after January 1, 2020. The gas prohibition requires all-electric construction for single-family*, detached Accessory Dwelling Units (ADUs), and low-rise multifamily residential buildings. The reach code applies to all types of buildings, including high-rise multi-family, hotel/motel, and other non-residential construction, with varying requirements by occupancy type. Visit our [summary](#) page for a succinct list of the ordinances’ requirements or view the posted ordinances on our reach code [webpage](#) for specific details.

* “Single-family” is defined by Building Energy Code as one- and two-dwelling units, including townhomes

2. What advantage(s) are conveyed by the natural gas prohibition and reach code ordinances?

These ordinances will help San José meet its Climate Smart goals to reduce greenhouse gas emissions (GHGs) and improve residents’ quality of life. San José’s GHG emissions profile is dominated by building energy consumption (31.4%) and transportation (62.8%). The “natural gas” used in buildings is primarily comprised of methane, which is 86 times more potent at trapping heat in the Earth’s atmosphere than carbon dioxide. Additionally, methane leaks create indoor and outdoor air quality hazards, and aging gas infrastructure presents explosive safety risks, particularly during fires. San José’s new natural gas prohibition and reach code ordinances include requirements for all-electric and energy-efficient construction, which are expected to eliminate over 300,000 metric tons of carbon emissions over the lifetimes of its 2020 building stock alone. Additionally, the reach code’s electrical vehicle charging, and solar readiness requirements promote further venues for reducing GHGs and improving the air quality, safety, and grid resiliency of our community. Studies also show 100% building electrification is the lowest-cost way to decarbonize buildings.

3. Would the gas prohibition and reach code apply to existing buildings, be triggered by a change in occupancy type, or apply to additions/ alterations?

No, the gas prohibition and reach code ordinances are meant for new construction. They do not apply to occupancy changes, additions and/or alternations.



4. If I build an Accessory Dwelling Unit (ADU), will it need to comply with the reach code or natural gas prohibition?

It depends on if the ADU is detached (free-standing) or attached (shares wall with existing building). Detached ADUs for which application for a building permit is made on or after January 1, 2020 are covered under the ordinances as they are new buildings. Attached ADUs are not covered by the reach code or natural gas prohibition since they are considered additions/alterations to existing buildings. Visit the City’s reach code [webpage](#) for specific details.

5. Does the gas prohibition apply to other outdoor residential structures, like a cabana, spa, or fireplace?

Yes - the gas prohibition requires all-electric construction for newly built single-family, detached ADUs, and low-rise multifamily residential buildings. Other fixed outdoor structures of newly built properties, like cabanas, spas, and fireplaces, are also covered under the gas prohibition. Portable propane appliances for cooking and heating are allowed.

6. Do all-electric buildings cost more?

In most cases, all-electric buildings are less costly to build. The service and piping for natural gas is an expense that is often ignored when comparing the cost of gas and electric equipment. An all-electric building starts without that expense, so even when electric equipment might be more expensive in some cases than its natural gas counterparts, that cost is offset by the gas infrastructure savings. This [study](#) from E3 summarizes the case for building electrification as the lowest-cost approach as well.

7. How are the Electric Vehicle Charging Infrastructure (EVCI) requirements determined?

EVCI requirements vary according to the occupancy type of the newly constructed building. The minimum required percentages of each EVCI type are based on the total number of parking spaces required by Planning Ordinance Code. A summary of EVCI requirements can be found in the “Reach Code Requirements – All-Electric Building Requirements” column of the one page summary of Reach Code and Natural Gas Infrastructure Ban requirements [here](#). For more specific details on EVCI requirements and definitions, please see our reach code ordinance located on our reach code [webpage](#).

8. Are commercial kitchens required to comply with the natural gas prohibition?

No, at this time commercial kitchens are not included in the natural gas prohibition ordinance.



9. How does the gas prohibition and reach code impact affordable housing projects?

Based on the [statewide cost effectiveness studies](#), most building projects are less costly to construct as all-electric buildings. The reach code is also structured so that an all-electric project would only need to meet Title 24, the standard building requirement. Projects that choose to continue to use natural gas will be more efficient than they are under Title 24, due to added efficiency requirements for mixed fuel buildings, which will increase affordability for tenants as it will reduce monthly energy bills compared to a non-reach code project. In addition, the reach code's requirements around electric vehicle charging infrastructure will encourage EV adoption. EVs can be operated at a lower cost than standard vehicles. Finally, the gas prohibition allows for requesting a hardship exemption.

10. Is San José the only city that has passed a reach code and/or natural gas prohibition?

No, many cities throughout California are currently considering reach codes and/or natural gas prohibitions for the 2019 building code cycle. Reach codes have already passed in nearby Berkeley, Davis, Menlo Park, San Mateo, Mountain View, Santa Rosa, and Marin County.

11. Is it really a good time to move toward building electrification given the increased power shutoffs and resiliency concerns?

Yes, the time is now to move towards building electrification. In addition to the many health and environmental benefits of reducing carbon emissions from our new building stock (see Question #2), moving away from natural gas will eventually decrease the need for planned safety power outages, and increase the grid's capacity and resiliency in the face of emergencies, power shutoffs, or rolling blackouts.

Gas infrastructure and appliances are not immune from power shutoffs, nor do they offer safe operation during emergencies or blackouts. Gas infrastructure is particularly vulnerable to fires or earthquakes, with gas pipe explosions being the leading cause of post-earthquake fires, and consequently strands gas consumers for long periods while gas infrastructure is repaired. Gas infrastructure is also not immune to outages, planned or otherwise. During the recent planned power outages of October 2019, both electricity and natural gas infrastructure were turned off as fire safety precautions in threatened areas.

Modern gas appliances, such as hot water heaters, are not immune to power outages since they are now equipped with electric ignitions, instead of pilot lights, and will not work when the power is off regardless of their primary fuel source. Gas stoves can sometimes be lit with a match during a power outage, but their exhaust fans will not work, making them unsafe to operate without electricity. All-electric appliances can safely be set up to use a backup power source including generators or solar-powered batteries.



Future technology trends including the falling price of lithium-ion batteries, the capability of leveraging an electric vehicle battery as a backup power source, and smart electrical panels to distribute power to critical loads in the home will increasingly allow for backup electric power that is safer and more reliable than gas sources.

San José Clean Energy is currently analyzing alternatives to enhance future grid capacity and resiliency in San José, including incorporation of [microgrids](#). For more information on planned safety power outages, please visit PG&E's [PSPS overview](#).

12. Can the current electric grid handle 100% all-electric buildings today?

All-electric new construction is an effort to slow (and hopefully very soon stop) the expansion of fossil fuel infrastructure that will have to be abandoned before the end of its useful life.

Immediate 100% building electrification is neither possible, nor what anyone is proposing.

The marginal electric grid impacts of all-electric new construction will be tiny. Much larger is the potential future impacts of existing building electrification, which needs to happen at massive scale, and quickly. Utilities and state agencies are planning for it. This article on building electrification has a section on [grid impacts](#).

13. I'm planning a significant remodel, will the gas ban requiring a fully electric building apply to my project?

The [Natural Gas Infrastructure Prohibition ordinance](#) applies to “new construction” with limited exemptions/ exceptions. The San Jose Municipal Code defines “Demolition” of a building as “...removal of more than fifty percent of the exterior walls of a building.” (SJMC 20.80.420). Based on this definition, if your project meets this Demolition definition, then it qualifies as new construction and the Natural Gas Infrastructure Prohibition would apply regardless of any existing natural gas infrastructure.