

Housing Elements and Energy

Why should Housing Elements address energy?

Housing and energy efficient, resilient, and healthy buildings are key components for achieving community vitality and serving the needs of residents. Energy efficient buildings increase occupant health by reducing infiltration of moisture, pests, or air pollution. They increase comfort and decrease utility bills. In the case of existing buildings, this can help prevent residents from having utilities turned off due to inability to pay or resorting to unsafe practices for heating a home, such as relying on gas ovens. Energy efficient housing is also more resilient to climate change, preventing infiltration of wildfire smoke and keeping homes thermally comfortable during extreme heat events.

Addressing energy as part of a housing element also makes sense in order to provide for consistency with other local government plans and policies. For example, Sustainability Elements and Conservation Elements may discuss energy and climate, as well as climate action plans. Buildings, including homes, are a key energy user and produce a significant percentage of the state's greenhouse gas emissions. In addition, state law requires Housing Elements to include a section on energy conservation (Government Code Section 65583(a)(8)).

What is BayREN and how can BayREN help?

BayREN is the Bay Area Regional Energy Network, a collaboration of local governments representing the nine Bay Area counties plus the Association of Bay Area Governments that works to support communities to equitably achieve state and local climate and energy goals. We have developed draft goals, policies, and actions which local government staff can use when developing these elements and plans. Each county in the Bay Area has a BayREN representative who is available to answer questions and provide more information as needed (see <https://www.bayren.org/contact> for contact information for each county).

Suggested Plan Text, Goals, Policies, and Actions

The suggested text, goals, policies, and actions are provided as a starting place for discussions in local jurisdictions.

Energy Conservation Section

Version 1 – For cities/counties that have adopted climate action goals

The interconnectedness of quality and energy efficient housing is discussed in [insert planning documents that discuss energy- i.e., climate action plan, sustainability element, energy elements). In [document], the City of ___ has established a goal of X% reduction in greenhouse gas (GHG) emissions by 20__ (or carbon neutrality by 20__).



Energy conservation can help achieve that goal by both reducing use of natural gas, which will reduce emissions, and reducing use of electricity, which will reduce demand on the grid and increase reliability. In addition, energy conservation also reduces residents' energy costs and makes their homes more comfortable, healthy, and resilient. Using electricity instead of natural gas to fuel homes can also help to reduce climate impacts and improve health. Housing needs to be constructed expeditiously in order to address the housing crisis; however, if it is not built to also address the climate crisis, it will be challenging for jurisdictions and the State to meet aggressive climate goals. As required by Government Code Section 65583(a)(8), this Energy Conservation section identifies policies and actions to address energy use in the housing stock.

Version 2 – For cities/counties that do not have adopted climate action goals

Energy conservation reduces energy costs for residents and makes homes more comfortable, healthy, and resilient. In addition, using less energy also has broader societal benefits by reducing impacts on the electric and natural gas infrastructure and reducing greenhouse gas emissions. As required by Government Code Section 65583(a)(8), this Energy Conservation section identifies policies and actions to address energy efficiency in the housing stock.

Goal/Objective

- Promote energy efficiency in new and existing residential buildings in order to reduce energy costs, provide quality and resilient housing, improve building comfort, and reduce greenhouse gas emissions.

Suggested Policies (*choose one or more*)

- Create local energy and green building standards for new residential construction, renovations, and existing buildings.
- Promote energy efficiency in the provision and use of water in all residential developments.
- Encourage energy efficiency improvements to existing homes in order to improve health and reduce utility costs.
- Facilitate residential development that minimizes energy use and operating costs.
- Allow and encourage green building practices, energy efficient construction, solar installations, and electrification of buildings.
- Evaluate opportunities to transition housing from gas to electricity from a land use perspective.

Suggested Programs/Actions (*choose one or more*) – *see below for brief descriptions of each of these*

- Provide information to residents on incentives for energy efficiency and electrification from organizations such as PG&E, BayREN, [the local CCA] and others.
- Encourage water utilities to participate in BayREN's Water Upgrades \$ave Program in order to make water efficiency improvements available to residents at little-to-no up-front cost.



- Develop or strengthen local energy reach codes requiring cost-effective energy efficiency and electrification measures for new and/or existing housing.
- Facilitate permitting for energy efficiency and electrification improvements to residential buildings, including solar panels.
- Implement a program to require inspections prior to sale of a home to ensure additions and alterations, including HVAC replacements, were permitted and constructed or installed to code.
- Identify zones (potentially at the periphery of development) where there may be opportunities to strategically prune natural gas infrastructure.

Detailed Descriptions of Suggested Programs/Actions

Provide incentive information to residents

Several agencies, including PG&E, BayREN, and [the local CCA], offer incentives or rebates to encourage people to buy appliances or make improvements to their homes to save energy and reduce greenhouse gas emissions. Staff will provide information on these programs to residents through the city website and other avenues, and will consider hosting an annual event for residents, such as a BayREN Home+ workshop.

Encourage water utility participation in Water Upgrades \$ave

Local water utilities that participate in BayREN's Water Upgrades \$ave Program can provide water efficiency improvements at little-to-no up-front cost. By installing these improvements, residents save enough money to both reduce their utility bills and pay for the improvements. Staff will encourage the local water utility to participate in this program in order to make these savings available to residents.

Develop or strengthen local energy reach codes

Buildings use about 40% of all energy and produce about 30% of greenhouse gas emissions. Energy costs are also significant—low income households spend around 8% of their incomes on energy. When buildings are built in the most efficient and cost-effective way, all three of these are minimized. Each time the State of California updates the Energy Code (every 3 years), local governments have the opportunity to adopt “reach codes” that require additional cost-effective energy improvements and/or require buildings to be fueled primarily or only by electricity. Staff will track reach code opportunities, including the CalGreen Tiers, and develop appropriate reach code proposals for new and existing buildings for consideration by the City Council.

Facilitate permitting for energy efficiency and electrification improvements

While the [City/County] wants to encourage energy efficiency and electrification improvements, permitting can sometimes be a barrier. To address this, sustainability staff will work with building department staff to help facilitate permitting for these improvements. Actions could include: providing handouts from BayREN, PG&E, or others at the counter to help applicants understand code requirements; scheduling training for city staff from PG&E or BayREN on new technologies and code requirements; consideration



of electronic tools for permitting such as Solar App or BayREN's ePermit Tool; review of permit fees; or other related actions.

Develop a program to require code compliance inspections

Permitting is essential for health and safety, but work is often completed on homes without a permit, potentially resulting in safety risks as well as increased energy usage. To improve permitting rates, city staff will develop a program to require inspections prior to sale of a home. This program could be modeled on the City of Davis's Resale Program (<https://www.cityofdavis.org/city-hall/community-development-and-sustainability/building/resale-program>). Another option would be to have a program that focused only on compliance of water heaters and HVAC systems, as these are complex, are often unpermitted, and account for most of the energy used by a home. To provide flexibility, inspections could be carried out as much as 18 months prior to a house sale, and any necessary work could be completed either by the seller or by the buyer.

Pruning natural gas infrastructure

Transitioning the housing stock from natural gas/mixed-fuel to all-electric buildings is a necessary part of achieving the State's GHG emissions goals. Aside from reducing emissions, the electrification of buildings provides resiliency benefits from removing natural gas infrastructure which may be vulnerable to earthquakes, fires, and explosions, and has high costs for maintenance, which are projected to increase over time. Since natural gas pipeline system acts as a tree that runs throughout a geographic region, jurisdictions may consider identifying opportunities for strategic decommissioning of natural gas infrastructure at the edges of the system.