

# City of Chula Vista Existing Home Energy Sustainability Ordinance Overview

**Background:** Homes in Chula Vista have been built over the years to meet the applicable energy related building codes which were first put in place in 1978. Since then new homes have gotten healthier and more efficient while some existing homes have gotten left behind. To help address these older homes the City is educating residents about retrofit opportunities and requiring older homes undergoing additions or remodels to make certain targeted upgrades, where applicable and feasible, to bring them closer to current codes.

**Who Needs to Comply:** These energy saving improvements are something most homes can benefit from but because newer homes have already been built to meet more recent energy code the focus of this policy is homes built in Chula Vista before 2006. Any home that does not have these measures should evaluate if they would benefit their home, but this ordinance is focused on homes that are doing alterations or remodels. Under this ordinance the definition of “remodel” is tied to structural changes that trigger the need for a permit. Please review the potential examples below to better understand what projects need to comply.

What projects trigger this requirement?

- Adding square footage
- Moving interior walls
- Adding windows and doors

These projects do NOT trigger this requirement:

- Adding new tile or flooring
- Bathroom fixtures
- Lighting fixtures
- Appliances
- Adding or moving a kitchen island
- Adding or changing counters
- Adding an Accessory Dwelling Unit (ADU/JADU)
- Projects that are medically necessary

Location	Year Home Was Built	Required Energy Efficiency Measures
All City	2006	0
All zip codes except 91914	2005 to 1979	2
All zip codes except 91914	1978 or older	3
91914	2005 or older	4

Based on the age and location of the home, different energy saving measures will be required. Please use the table above to determine how many of the energy efficiency measures listed in the table below will be required if your home undergoes an alteration or addition. The City recommends all homes in Chula Vista implement some level of the energy measures listed below to reduce their energy bill and improve home air quality. For more information on cost effectiveness or other detail please review “Chula Vista Energy Efficiency Fact Sheet” at <https://www.chulavistaca.gov/departments/clean/retrofit>.

**What Energy Efficiency Actions Could Be Included?** Below is a table that reviews the home energy efficiency standards that the City is trying to ensure homes meet.

Name	Description	Benefit	Implementation Notes
LED Lighting	Replace screw-in halogen, incandescent or CFL light bulbs with LED light bulbs	LED lights can use up to 75% less energy than incandescent bulbs and are 15% more efficient than average Compact Florescent Light (CFL) Bulbs.	Not applicable to lights plugged into outlets, recommend Energy Star bulbs. Historic fixtures exempt if not compatible with LED bulbs.
Water Heating Package	A. Water Heater Blanket - Insulate exterior of storage water heaters manufactured before April 2015. B. Hot Water Pipe Insulation - Insulate all <b>accessible</b> hot water pipes with R-3 pipe insulation. C. Low Flow Fixtures - Upgrade sink and shower fittings to maximum flow rates of 1.8 gallons per minute (gpm) for showerheads and kitchen faucets, and 1.2 gpm for bathroom faucets.	Water heating can account for up to 50% of an average home's natural gas usage. By insulating the tank (if not already insulated) and exposed piping you can minimize the amount of heat that is lost on its way to you. By utilizing low flow faucets, aerators and low flow showerheads you not only save water but also save the energy used to heat up that water.	Only accessible hot water pipes need to be insulated. Historic fixtures exempt if not compatible with water efficiency measures.
Attic Insulation	Add attic insulation in buildings with vented attic spaces to meet R-38.	Attic insulation helps your home maintain a stable temperature.	Homes with existing insulation greater than R-5 in Climate Zone 7 or greater than R-19 in Climate Zone 10 are exempt. Homes without vented attics are exempt.
Duct Sealing	Air seal all <b>accessible</b> ductwork with a goal of reducing duct leakage to be equal to or less than 15% of system airflow.	Duct leakage can be as high as 30% in average California homes. This means that up to 30% of the air you are paying to heat or cool is being lost before it reaches its destination. Additionally, leaky ducts can allow a pathway for dust or other indoor air quality concerns to enter your rooms.	
Air Sealing	Apply air sealing practices throughout all <b>accessible</b> areas of the building. Homes with one or more vented combustion appliances MUST have a BPI Combustion Appliance Safety Inspection performed after air sealing.	Houses built over the past five years are over 20 percent tighter than those built a decade earlier. This means the air you paid to heat or cool can escape and increases your energy bills and outside pollutants can enter your home. By sealing your home you can make it safer and healthier.	Only accessible areas need to be sealed. Attics with crawl space are considered accessible.

Cool Roof	Only applicable if project includes re-roofing or addition of steep slope roofs. Install a roofing product rated by the Cool Roof Rating Council (CRRC) with an aged solar reflectance of 0.25 or higher and thermal emittance of 0.75 or higher.	Cool roofs help save energy by increasing the amount of solar energy that get reflected away from your home and minimize the need for cooling on hot summer days.	Only for steep slope roofs (shallow slope roofs already covered).
Windows	Replace existing single pane windows with a dual pane product.	Energy efficiency windows not only reduce heating and cooling costs they can also reduce the ability of moisture and noise to enter your home.	Look for U-factor equal to 0.32 or lower and a Solar Heat Gain Coefficient (SHGC) equal to 0.25 or lower
Water Heater Replacement	High Efficiency Heat Pump Water Heater: Replace natural gas storage water heater, or, tankless water heater having an Energy Factor of .81 or less, with Heat Pump Water Heater  -or-  High Efficiency Tankless Water Heater: Replace natural gas storage water heater, or, less efficient tankless water with tankless water heater.	About 18% of average homes energy is used for heating water. Heat Pump Water heaters are on average 200% to 300% more efficient than traditional water heaters while tankless units are 8% to 34% more efficient. Additionally because heat pump water heaters store their hot water they can minimize energy usage during peak periods.	Heat Pump Water Heater with Uniform Energy Factor (UEF) of at least 3.1 (Northwest Energy Efficiency Alliance Tier 3).  -or-  Tankless water heater with a minimum Energy Factor of 0.96.
Air Conditioner Replacement	High Efficiency Air Conditioner: Replace an existing air conditioner with an high efficiency air conditioner.  -or-  High Efficiency Heat Pump: Replace an existing air conditioner with a Heat Pump	When running air conditioners can be the biggest energy user in a home so installing high efficiency units can prevent higher bills. It is also important to ensure ducting is sealed and installed and filters are regularly changed.	Install an air conditioner or heat pump rated to at least 18 SEER

**Benefits:** As mentioned in the table above, there are numerous benefits that these upgrades can provide depending on your home. Below is more information about the main benefits.

- Energy Bill Reductions – Over the expected life of the products, all of the measures are expected to reduce the home’s energy bills by more than the cost of installing them.
- Improved Indoor Air Quality – Leaky homes and ducts are one of the largest ways that outdoor pollutants like dust and pollen can enter a home. Properly sealing homes and ducts can help increase indoor air quality. But all homes need ventilation, especially homes using fuel-fired appliances – gas water heaters, heating systems and stoves need ventilation, but homes can be sealed up too tight to allow this. If you seal your home beyond the recommended 15% of

system airflow you may need mechanical ventilation to ensure you are still receiving fresh air. Residents can have a third party verify their homes air leakage.

- Reduce Carbon Emissions – Home energy use is one of the largest contributors to climate change in Chula Vista. By saving energy residents will also reduce greenhouse gas (GHG) emissions. For more ways to reduce GHG emissions please visit [www.cvclimatechallenge.com](http://www.cvclimatechallenge.com).

**What if I have already Made Similar Upgrades:** If you have already made these, or similar, upgrades or they will be a part of your home project, you will be benefiting from a more energy efficient home and do not need to make any additional upgrades. Please review the list of exemptions below:

- Similar measures have already been completed
  - Including participation in a low-income weatherization program (a deferment will be provided to qualifying applicants that have applied for weatherization programs but not received the work yet)
- Home achieves a Home Energy Score (HES) score of at least 8 out of 10
- Home has on-site photovoltaics (PV) offsetting at least 95% of the annual electricity and gas-equivalent usage
- An alternative, voluntary, set of energy measures is concurrently being completed that will achieve equivalent energy savings to the prescriptive packages

**What if These Upgrades Will Not Work for My Project:** Due to unique characteristics of some homes, these upgrades may not work as intended for all residents. To help ensure that residents are not negatively impacted by this requirement the following additional exemptions are also allowed.

- Low-Income Resident – Applicants who can demonstrate they qualify as a low-income household are exempt
- Project Value Cutoff - If the cost of completing energy efficiency measures required under this policy exceeds 20% of the overall project cost without those measures, permit applicants can propose a more limited set from among the required measures which does not exceed 20%
- A measure is beyond the authority of the homeowner due to HOA covenant
- Prescribed measures would be technically infeasible or not be cost-effective due to unique characteristics of home or other special circumstances

#### **When will it be in effect, if approved by City Council?**

Assuming City Council and California Energy Commission approval the ordinance is expected to take effect **November 4<sup>th</sup>, 2020**.

**Resources:** Please review the resources listed below for information about home energy performance or energy efficiency resources.

- SDG&E Energy Savings Assistance Program – The ESAP is an income qualified program that can make minor improvements to your home at no cost to you, such as insulation and appliance replacement, to help save energy. For full ESAP program eligibility requirements and application information, please visit [www.sdge.com/esap](http://www.sdge.com/esap) or call 619-387-4757.

- SDG&E Marketplace – A website, [www.sdgemarketplace.com](http://www.sdgemarketplace.com), created by SDG&E that features thermostats, washers, dryers, refrigerators, surge protectors and lighting products with easy to shop at-a-glance product features, energy savings estimates and product reviews.
- Federal Weatherization Assistance – A income qualified program can provide you with no cost weatherization to help you save energy and make your home more energy efficient. If you would like to find out if you qualify for this program please call (619) 409-7588 or visit MAAC’s website [www.maacproject.org/main/impact/healthy-homes-health-services/weatherization-services/](http://www.maacproject.org/main/impact/healthy-homes-health-services/weatherization-services/).
- Home Energy Score – Developed by the Department of Energy (DOE) and its national laboratories, the Home Energy Score provides homeowners, buyers and renters directly comparable and credible information about a home’s energy use. Like a miles-per-gallon rating for a car, the Home Energy Score is based on a standard assessment of energy-related assets to easily compare energy use across the housing market. For more information please visit: [www.homeenergyscore.gov](http://www.homeenergyscore.gov).
- Go Green Financing – To help residents find financing for energy saving projects the state created the Go Green Financing website: [www.gogreenfinancing.com](http://www.gogreenfinancing.com). This allows California residents and businesses to create a custom energy action plan, find rebates and incentives and find a financing option.

**Questions?** Contact the City of Chula Vista’s Conservation Section at 619-409-3893 or [conservation@chulavistaca.gov](mailto:conservation@chulavistaca.gov).