

Bay Area Multifamily Building Enhancements

Clean Heating Pathway

Starting in 2020, multifamily property owners can receive additional incentives for switching from gas fueled space heating, water heating and cooking appliances to cleaner, highly efficient electric alternatives. The Clean Heating Pathway is designed for properties that wish to demonstrate climate leadership by deeply reducing the carbon emissions from energy use in their buildings.

Participation Steps & Requirements

The participation process and requirements are designed to help participants deeply reduce, and eventually eliminate carbon emissions from energy.

1. Work with a BAMBE consultant to select a scope of work that includes an eligible electric space heating, water heating, or cooking technology – *new natural gas equipment should not be installed.*
2. Once an eligible scope is selected, pilot participants will receive a Zero Net Carbon (ZNC) plan, which will provide a roadmap for eliminating operational carbon emissions, and an overview of potential incentives and resources.
3. All projects must be completed within 9 months of scope approval. Extensions may be granted.

Projects must install at least 3 measures, including at least 1 measure from the incentive table (if installing in-unit measures, they must be in at least 75% of units). The total scope must reduce at least 0.25 tonnes of CO2 per unit to receive a per-unit rebate of \$750. The electrification incentives are based on equipment selected and are in addition to the \$750 per unit. *Heat Pump Readiness¹ can count as 1 measure – however, the .25 tonne reduction per unit still applies.*

Clean Heating Incentive Levels

BAMBE Rebate	Rebate
Reduce >0.25 tonnes CO2 per unit	\$750 per apt in building
Electrification Adders	Rebate
In-unit Measures	
In-unit Heat Pump Water Heater	\$1,000
In-unit Heat Pump HVAC	\$1,000
In-unit Laundry Dryer	\$250
In-unit Electric Cooking	\$350
Central System Measures	
Central Heat Pump Water Heater (2-18 apts served)	\$800 per apt served
Central Heat Pump Water Heater (19 or more apts served)	\$15,000
Central Heat Pump HVAC	\$800 per apt served
Common Area Measures - these require an additional measure from the BAMBE "core" list	
Common Area Heat Pump HVAC	\$1,000
Laundry/Common Area HP Water Heater	\$1,000
Heat Pump Pool Heater	\$1,500

A sample scope might include the following:

- Central HPWH
- Roof insulation
- Comprehensive lighting

¹ A building that is "heat pump ready" has the prerequisites in place to have a heat pump delivered and installed, such as higher voltage wiring, site placement preparations, and electrical panel upgrades.

Clean Heating Pathway FAQs

What are the eligible electric technologies?

In order to receive the incentive, electric technologies must perform better than high efficiency fossil fuel technologies in terms of total energy usage and environmental impacts. The eligible categories include those listed in the incentive table. Check with your BAMBE consultant to see if the technology you are interested in qualifies.

What is a heat pump?

A heat pump heats air or water by compressing latent heat in the ambient air outside and moving it inside. It is like a refrigerator or air conditioner run in reverse. It is highly efficient because it doesn't use energy to *make* heat, just to move it. The technology has been popular in Europe and Japan for decades.

What are the benefits of heat pump technology?

Heat pumps can be three times as efficient as gas appliances. They rely on electricity instead of gas, and therefore can be powered by renewable energy sources – such as rooftop solar or clean energy from the grid. All-electric buildings powered by renewable energy are an essential part of helping California meet its 100% clean energy and climate goals. Additional benefits of transitioning from gas to electric appliances include improved indoor air quality and safety, as gas fueled appliances release carbon monoxide, nitrogen oxide, other pollutants and fine particles.

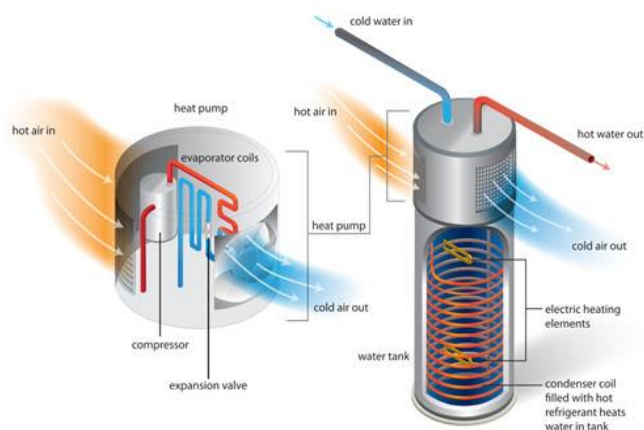
How many projects can participate in this pathway?

In 2020, the program budgeted funding to incentivize approximately 1250 units. This number will fluctuate depending on measures selected by participants.

How do you calculate the CO2?

Tonnes of carbon dioxide (CO₂) will be calculated based on 0.005 tonnes per therm of gas saved, minus the emissions related to the added electricity load, based on the average annual emissions per kWh of PG&E electricity. In the future, the electricity emissions may be calculated using more precise factors such as time of use and the anticipated increase in renewables on the grid over the lifetime of the equipment.

Technology Spotlight: Heat Pump Water Heaters



Natural gas water heaters are the single largest source of Greenhouse Gas (GHG) emissions in residential buildings in California – more than all other end uses combined. To achieve State and local GHG reduction goals, we must electrify natural gas water heaters.

About Heat Pump Water Heaters

- Super energy-efficient technology *moves* heat, instead of *creating* heat
- Offers load management capabilities through built in or retrofit software
- Equipment wholesale cost is about \$600 more compared to natural gas water heater

Source: ENERGY STAR