

Throughout the Bay Area, installing heat pumps can lower customer bills **TODAY.**



Silicon Valley Clean Energy (SVCE), Peninsula Clean Energy (PCE), and TRC completed a study using real customer data to understand potential bill impacts of electrifying existing single-family homes across the Bay Area.

Key Findings

- The study shows that despite recent increases in electricity rates, heat pumps can help customers throughout the Bay Area **save money on their utility bills today.**
- In many circumstances, **whole-home electrification can lower customer bills**, provided customers: a) install high-efficiency heat pump heating, ventilation and air conditioning (HVAC) and water heating systems; b) take advantage of energy efficiency opportunities during retrofits; and c) enroll in the optimum electric rate once equipment is installed.
- Homes adding air conditioning for the first time may see bill increases when replacing a gas furnace with a heating-and-cooling heat pump - not surprising due to the additional cooling benefit. This can be avoided/minimized by installing **high-efficiency heat pump HVAC and Heat Pump Water Heaters (HPWHs).**



Installing two heat pumps (HPWH and heat pump HVAC) can help customers save even more money, with **average monthly savings ranging from \$35 to \$80 per month** when replacing existing gas appliances.



Upgrading from a gas furnace to a heat pump HVAC system can lower customer bills across the region. Choosing a high-efficiency unit not only increases comfort, it can also help **save an additional \$20 per month.**

Switching to a HPWH can **lower customer bills throughout the entire Bay Area**, regardless of the efficiency of the equipment installed. Choosing a high efficiency unit can save additional \$10 per month.



Electrifying cooking and clothes drying helps **reduce home emissions and greatly improves health and safety** by eliminating harmful indoor air pollutants. However, electrifying these appliances generally increases customer bills compared to gas.



Customers throughout the entire Bay Area can lower their monthly bills even when electrifying their entire home by choosing **high efficiency** heat pumps.



Choosing high-efficiency heat pumps and enrolling in an optimum electric rate are two of the most impactful ways to lower bills through home electrification.



Avoiding Bill Increases

Every project is unique, and simply installing a heat pump does not guarantee bill savings. Here are some tips to help ensure bills decrease and ways to avoid common installation pitfalls that may cause increases:



After heat pumps are installed, be sure to switch to an electrification-friendly rate to maximize bill savings potential (e.g., the E-ELEC or EV-2 rate options).



Program units to synchronize with Time-of-Use electric rates whenever possible to help keep operating costs lower.



Ensure HPWH storage tanks are upsized correctly and a thermostatic mixing valve is included to help limit use of expensive electric resistance backup heating to meet demand.



Install a compatible thermostat that communicates with variable speed heat pumps to allow high-efficiency performance capability.



There are instances where bill increases may be unavoidable, including when heat pumps are added as part of a larger home remodel that increases overall electricity usage (e.g., adding new appliances, increasing square footage, or purchasing a new electric vehicle).



SVCE offers resources for customers who go all-electric by providing rebates as well as a best practices guide for optimal performance: svce.info/applianceguide

Areas included (by Climate Zone)

The map below shows the first year bill savings by climate region when replacing existing gas equipment with a high efficiency HPWH (UEF 4.0) and HP HVAC (variable capacity).



Approach

Estimates were created using real-world SVCE/PCE meter data, localized weather data, best available calibrated models, and market-ready equipment.

Rates

This study was based on PG&E electric rates from December 2024 and natural gas rates from January to December 2024. Mixed-fuel homes were assumed to be on the E-TOU-C residential electric rate and G-1 residential natural gas rate, while partially or fully electrified homes were assumed to be on the E-ELEC electricity rate.