2023

SILICON VALLEY POWER

ELECTRIFICATION GUIDE




CITY OF SANTA CLARA CALIFORNIA 1852 THE MISSION CITY

SILICON VALLEY POWER
CITY OF SANTA CLARA

Powering The Center of What's Possible

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INTRODUCTION

This electrification guide is intended to help you navigate the road to electrifying your home. In this guide you will:

- Learn about electrification and the health, climate, and cost benefits
- Identify electrification targets in your home
- Review things to consider when switching from natural gas, propane or gasoline to electric appliances
- Be introduced to the Silicon Valley Power Residential Electrification Estimator to estimate your new energy costs

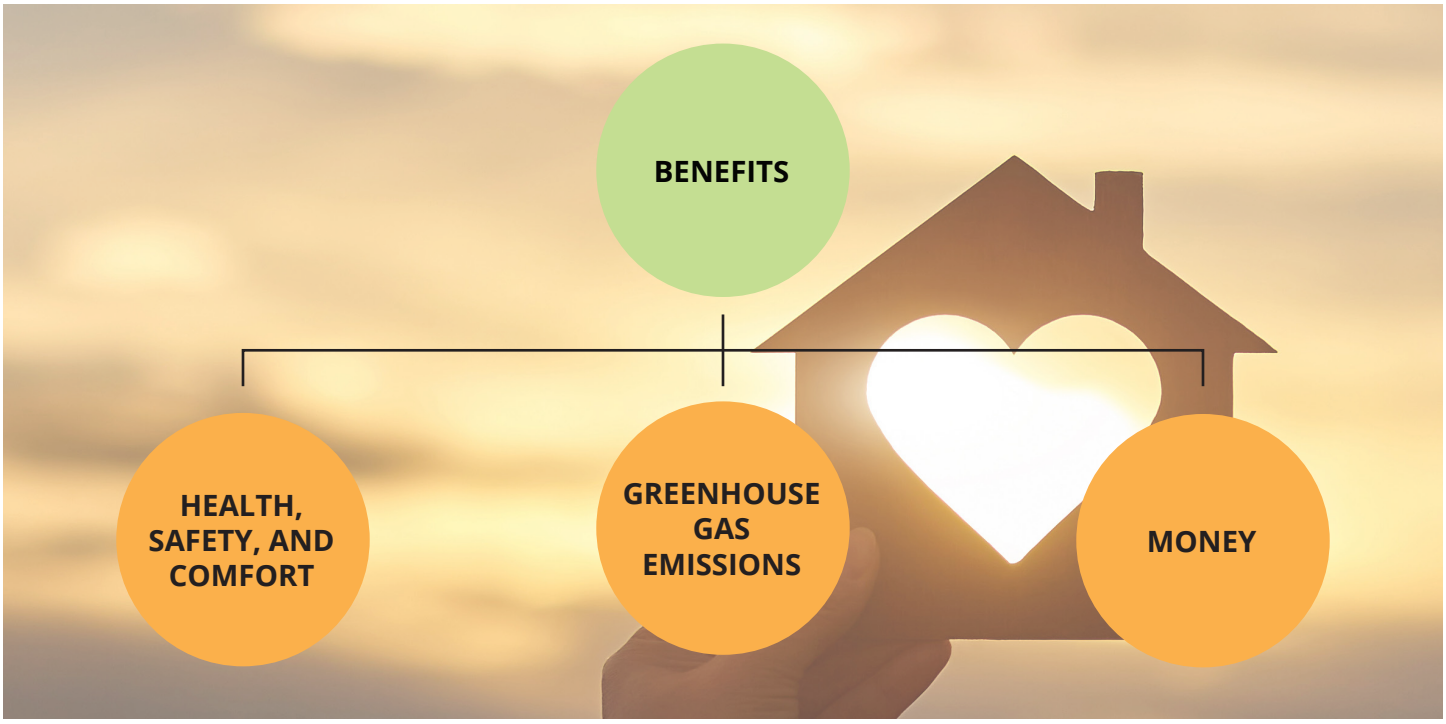
WHAT IS ELECTRIFICATION?

Building electrification is the process of replacing appliances powered by natural gas, propane or gasoline with appliances powered by electricity. Examples include space heating, water heating, cooktops, clothes dryers, yard care equipment, and more. California's greenhouse gas (GHG) reduction goals require that at least 60% of electricity must come from renewable resources by 2030 and 100% of electric retail sales to end-use customers must be provided by renewable energy and other carbon-free resources by 2045[1,2]. As we work toward meeting these goals, electrification will play a large role.

1 energy.ca.gov/sb100
2 energystar.gov/sites/default/files/asset/document/US_EPA_ENERGY%20STAR_Beneficial_Electrification_Handout_Final_508%20compliant_0.pdf

WHY ELECTRIFY YOUR HOME?

There are many benefits to electrifying your home including improving health, safety and comfort; reducing greenhouse gas emissions; and the potential to save money.



Improve Health, Safety and Comfort

Appliances that use natural gas (space heating, water heating, cooktop, oven, clothes dryer, fireplace, etc.) generate toxic air pollutants, including nitrogen oxide, formaldehyde and carbon monoxide, that can end up in your home and can increase the risk of long-term illnesses and diseases, such as asthma[3].

On average, we spend about 90% of our time indoors, where pollutant levels are often higher than outside levels. Indoor pollution is estimated to cause hundreds of thousands of respiratory health problems each year. According to the International Journal of Epidemiology, children living in homes with gas stoves are 42% more likely to experience asthma. Switching from gas to electric appliances removes combustion fumes and harmful gases like carbon monoxide from your home, eliminating the risk of carbon monoxide poisoning from gas appliances. Removing these indoor air pollutants can improve your health.

Converting to electric appliances not only improves your indoor air quality, but it also provides increased safety. Replacing gas appliances with electric appliances can decrease the risk of a house fire.

In addition to improved health and safety, electrification can also provide improved comfort. For example, heat pumps for space conditioning dehumidify air better than standard central air conditioners. Electric appliances also are typically quieter than their gas counterparts which helps reduce excess noise in your home.

3 *International Journal of Epidemiology, Volume 42, Issue 6, December 2013, Pages 1724–1737, doi.org/10.1093/ije/dyt150*

Greenhouse Gas Emission Reduction

By electrifying your home, you are switching the source of fuel from natural gas, propane or gasoline to electricity. Silicon Valley Power provides 100% carbon-free power to all residential customers so by electrifying your home you will produce zero greenhouse gas emissions!

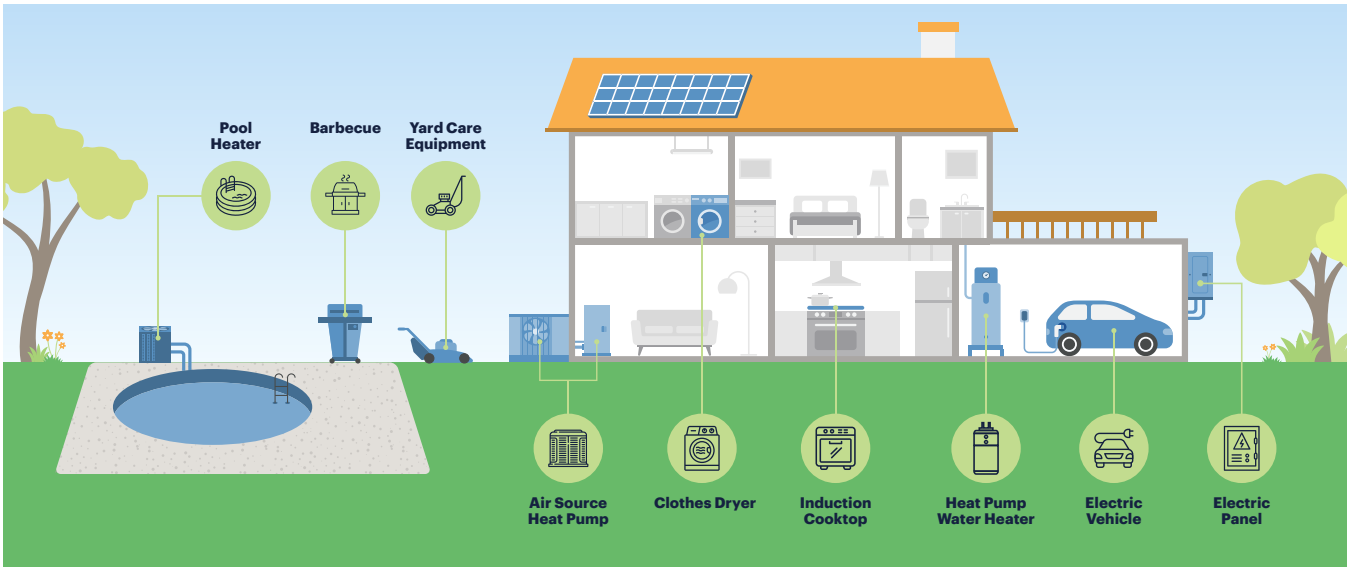
Potential to Save Money

Electrifying your home reduces your natural gas consumption and there are scenarios where switching to electric appliances can save money on your utility bills. Potential savings are based on installing more efficient electric equipment and an assumption that gas rates in California continue to increase faster than electric rates. However, it is important to note that there are scenarios where electrifying your home may lead to an overall increase in utility costs. Use the Silicon Valley Power Residential Electrification Estimator to see how switching to electric appliances can impact your overall bill and reduce your greenhouse gas emissions. You can download the Residential Electrification Estimator from our website at SiliconValleyPower.com/ElectrificationEstimator

It is important to note that when you switch from natural gas to electric appliances, your electric bill will increase, but it can be offset by the reduction in your natural gas bill, so you need to look at the total overall costs of both natural gas and electricity, as well as the non-energy benefits received to decide if electrification is right for you.

ROADMAP TO ELECTRIFICATION

In this section, we will walk through the potential opportunities to electrify your home.



First, identify the appliances and systems in your home that currently use gas to learn more about your options:

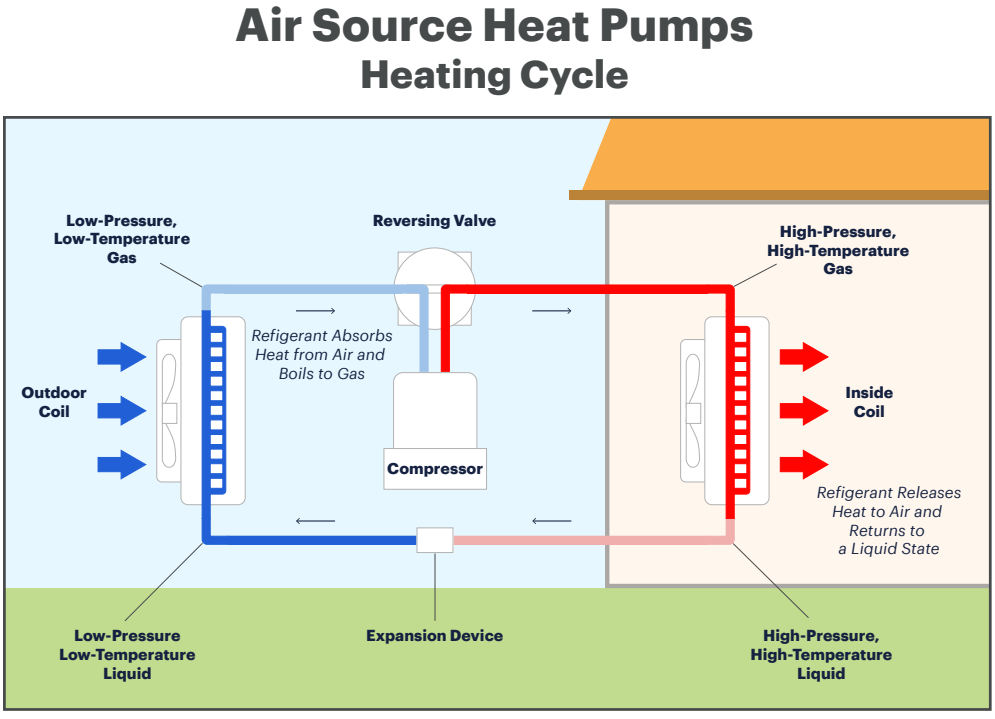
- Space Heating
- Water Heater
- Cooktop, Range and/or Oven
- Clothes Dryer
- Yard Care Equipment
- Fireplace
- Barbecue
- Pizza Oven
- Pool Heater

Space Heating

A heat pump is an electric alternative to the traditional natural gas furnace that provides both efficient heating and cooling for your home. When properly installed and sized correctly, a heat pump can deliver up to three times more heat energy to a home than the electrical energy it uses to produce that heat, making it essentially 300% efficient. This is possible because instead of converting a fuel source to heat, a heat pump transfers heat from the environment outside to produce heat for your home. It has the added bonus of working in reverse to provide air conditioning during the summer, allowing a single system to provide all your heating and cooling needs efficiently. Removing your gas furnace also improves the health and safety of your home by removing the risk of carbon monoxide poisoning, gas leaks and explosions.

How it works

A heat pumps works by "pumping" heat into or out of your home, depending on the mode it is in. Heat pumps are typically bi-directional, meaning they can be used to cool or heat a space. Take your refrigerator, for example: a heat pump draws hot air from inside your refrigerator to the outside, which is why many refrigerators feel warm in the space between the back of the appliance and the wall. When it's warm outside, heat pumps work like a standard air conditioner by moving heat from inside your home to the outdoors. During colder weather, heat pumps work in reverse by moving heat from outside air into your home. Even when the air is cool, heat can still be extracted for this process.



This graphic demonstrates the heating cycle of an air sourced heat pump. The outside air passes through the outdoor coils and increases the temperature of the refrigerant. The refrigerant is then compressed in the compressor, which further increases its temperature. The refrigerant then passes through the inside coils where it releases heat into the home. The cooled refrigerant then passes through the expansion device that further cools the refrigerant and returns to the outdoor coils for the cycle to continue. The system works in reverse when in cooling mode.

Heat pumps are available in many options, including air-source (most common), water-source, and ground-source. Air-source heat pumps include ductless, ducted, short-run ducted, split, package, multi-zone and single-zone units[4]. Talk to a contractor to determine which type of heat pump would be best for your home's specific needs. We always recommend getting multiple bids for any large project.

4 energy.gov/energysaver/air-source-heat-pumps

Smart Thermostat

A smart thermostat is a Wi-Fi enabled device that automatically adjusts cooling and heating settings in your home for optimal performance. Adding a smart thermostat to your heat pump is a great way to save even more money on your heating and cooling costs while keeping your home comfortable.

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • A single system for heating and cooling • Santa Clara climate is perfect for heat pumps • Improved health and safety	• Cost of equipment and installation may be higher • Energy costs may be higher depending on usage, especially if you did not have air conditioning previously

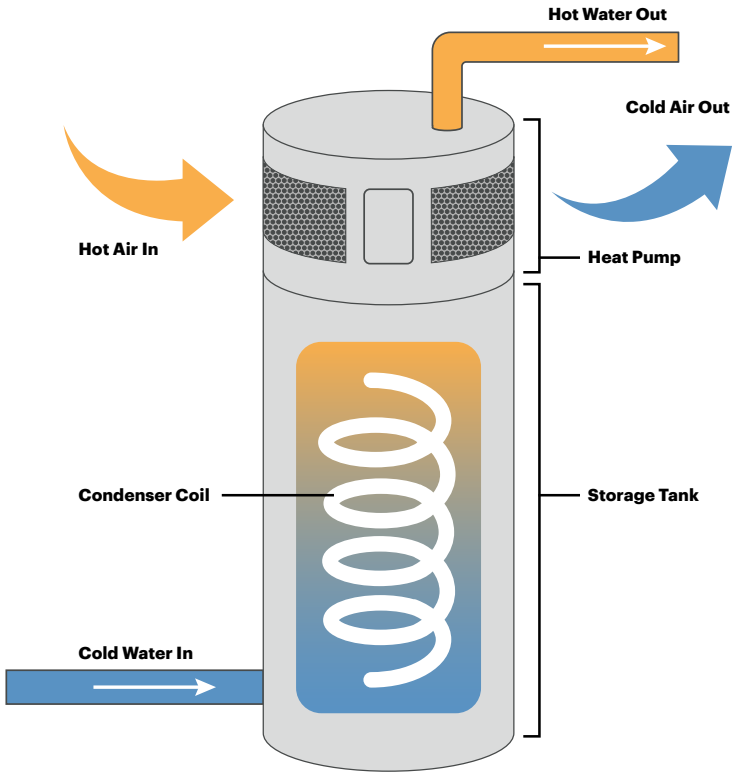
Water Heater

If you have a natural gas water heater or an electric resistance water heater, consider upgrading to an electric heat pump water heater. A conventional 30 amp heat pump water heater is about seven times more efficient than a natural gas water heater and about four times more efficient than an electric resistance water heater[5].

Heat pump water heaters can improve the health and safety of your home by removing the risk of gas leaks and toxic air pollutants from gas appliances.

How it works

A heat pump water heater uses the same process as a heat pump air conditioner, drawing heat from the surrounding environment to heat your water. Unlike a gas or electric resistance water heaters that generate heat directly, a heat pump water heaters uses electricity to transfer heat from outside of the water heater to the inside making it much more efficient.



5 neea.org/resources/plug-in-heat-pump-water-heaters-an-early-look-to-120-volt-products

Electric service requirements

Many homes in the Bay Area were designed to operate on natural gas as well as electricity. As you transition more of your appliances to electricity, you'll need to ensure that your electric panel has capacity to handle the additional load. Many heat pump water heaters require a dedicated 30 amp circuit and a 220/240 volt breaker and electrical outlet, although some 15 amp and 110/120 volt models are available. This may require an electric panel upgrade or the installation of a smart electric panel to manage loads. Contact a qualified contractor for assistance in determining if your electric panel and service require an upgrade.

Several manufacturers offer 110/120 volt heat pump water heaters that can plug into an existing outlet. These options likely won't require an expensive panel upgrade or rewiring that may be required when installing a 220/240 volt unit. The 110/120 volt unit may not be suitable for every home. If you need a significant amount of hot water due to a large number of occupants within the home, a 220/240 volt heat pump water heater may be a better option.

Space requirements

Heat pump water heaters include a compressor within the tank and need more clearance than a natural gas or electric resistance tank unit. Heat pump water heaters need to be in a room that has at least 750 to 1000 cubic feet of air (about the size of a 10 ft x 10 ft room), yet ducting or vents may allow for installation in smaller spaces. Keep in mind that the water heater will vent cool air, so it is best located in an unconditioned space such as a garage. Locating a heat pump water heater inside your home will increase your space heating requirements in the winter and will significantly reduce your overall energy savings. A qualified installer can help you evaluate your options.

Permits

Replacing a water heater requires a building permit, as does upgrading an electric panel. Contact the City of Santa Clara Permit Center for more information.

HIGHLIGHTS	THINGS TO CONSIDER
• Energy efficient • All electric means no GHG emissions with Silicon Valley Power's power supply • Improved health and safety	• Electric service requirements • Space requirements • Permits • Financing

Cooktop, Range and/or Oven

Your cooktop, range and/or oven is an excellent candidate for an upgrade to an induction cooktop or range with an electric oven.

While electric cooktops (also known as electric resistance or radiant cooktops) are an electric option, an induction cooktop is a safer and more efficient electric option.

How it works

Induction cooking technology uses an electromagnetic field, created by passing electricity through a coil below the surface of the cooktop. The magnetic field strikes the iron molecules in your cookware, producing heat. Induction eliminates the intermediate step of heating up a burner and then transferring that heat to the cookware, so it is faster and more efficient than cooking with a gas or standard electric

stove. Induction only heats the cookware and not the surrounding burner area, making it safer by reducing the risk of fire and eliminating waste heat which improves comfort in your kitchen.

Electric ovens work like natural gas ovens using heating elements in the oven to cook the food using radiation, but they are safer because they eliminate harmful gases from your home.

Restaurants and home cooks are falling in love with induction cooktops because they cook faster and respond quickly when the temperature is reduced, providing unmatched precision and control over the cooking experience. Induction technology enhances the cooking experience through better performance and increased health and safety.

Health and Safety

Induction cooking is healthier for you and your family. According to the International Journal of Epidemiology, children living in homes with gas stoves are 42% more likely to experience asthma.

Induction cooktops eliminate the indoor air pollution that gas stoves release into your home, including benzene, nitrogen oxide, formaldehyde, and carbon monoxide. A recent study in the Environmental Science & Technology[6] journal identified the presence of hazardous air pollutants in end-use natural gas across California. Benzene in particular, a known carcinogen that increases the risk of developing leukemia, was found in 99% of the samples taken. Eliminating an open flame by switching from gas to electric eliminates combustion fumes and harmful gases like carbon monoxide. This means there is less need for venting and the risk of carbon monoxide poisoning from a gas stove is eliminated.

On average, we spend about 90% of our time indoors, where pollutant levels are often higher than those outside. Indoor pollution is estimated to cause hundreds of thousands of respiratory health problems each year. Converting to electric appliances not only improves your indoor air quality, but it also provides increased safety in your home. Induction cooktops only heat steel or iron cookware, which means the area surrounding the cookware remains cool to the touch. An induction element stops heating when a pan is removed, which allows the ceramic cooktop to quickly return to a safe temperature as soon as the cookware is removed and it reduces risk of burns or fire if an element is accidentally left on.

Precision and Performance

Induction cooktops have precise temperature controls that respond faster than gas or standard electric cooktops. When you raise the temperature, the cookware will quickly heat up. When you lower the temperature, the cookware will quickly cool down.

Induction can also deliver the very low, even heat required to make some sauces and confections. This technology also outperforms gas and standard electric stovetops by heating twice as fast. You can bring a pot of water to a boil in less than half the time it takes on a gas stove, saving you time in the kitchen preparing meals. Plus, with its smooth surface, cleaning up is easy!

Induction Stove with Battery

If adding an induction stove will require an electric panel upgrade, you may want to consider an induction cooktop with a built-in battery. These cooktops only require a 120 volt outlet and will be commercially available soon. The stove can operate on battery power during a power outage and you can plug other devices into the battery as well.

6 *Composition, Emissions, and Air Quality Impacts of Hazardous Air Pollutants in Unburned Natural Gas from Residential Stoves in California, doi.org/10.1021/acs.est.2c02581*

Energy Efficient

Induction cooktops are more energy efficient than traditional electric cooktops, which can save you money on your electric bill.

Additionally, induction cooktops heat up efficiently. About 80 to 90% of the energy goes directly into the cookware and only 10 to 20% is wasted heat that goes into your kitchen. This is a great added benefit during the heat of the summer and can reduce your air conditioning load. For comparison, electric resistance is 70 to 80% efficient with 20 to 30% of the energy wasted as heat into your kitchen. Gas is only 30 to 40% efficient with 60 to 70% of the energy wasted as heat into your kitchen.

Cookware

Not all cookware works with induction cooktops, so you may need to invest in some new pots and pans. Use ferrous (magnetic) cookware, such as cast iron, enameled iron, stainless steel or blue or black carbon steel.

When in doubt, use the magnet test! If it sticks to the bottom of your pans, they'll work with induction cooktops. Note: Some stainless-steel pans don't contain iron and aren't compatible with induction, so it's best to check. Make sure the cookware you use is smooth and flat-bottomed, to ensure good contact and even heating.

There are induction converters available for pans that don't work. However, this is much less efficient and could potentially damage the stove, so a converter is not recommended.

Cost

Induction cooktops can be more expensive that traditional electric or gas stoves, but the benefits such as faster cooking times, increased health and safety and less heat in the kitchen may be worth the added cost.

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • Energy efficient • Cooking precision and performance • Improved health and safety	• Magnetic cookware is needed • Cost of new appliance • If someone in your house has a pacemaker or similar device, consult your doctor before purchasing an induction cooktop

HELPFUL TIPS

- Clean up spills right away. Food is less likely to bake onto an induction cooktop, but it's best to clean as you go to keep the surface in its best shape.
- Don't slide or bang pots on the glass surface or use abrasive cleaners. The surface is tough, but can crack and scratch, just like electric ceramic cooktops.
- Don't place magnetic items like foil or metal cooking tools on the cooktop.
- Don't use the cooktop as a chopping block. A flat induction cooktop can double as kitchen workspace, but use care to protect it to prolong the life of your appliance.
- Don't assume the cooktop is completely cool. It will get hot from the cookware, but the heat dissipates quickly. Most cooktops have a warning light that indicates when it's safe to touch the cooktop.

Clothes Dryer

Even though you may only run your dryer a few times per week, clothes dryers use a lot of energy when running, making selecting an energy efficient electric model important. Look for an ENERGY STAR® model with a high Combined Energy Factor (CEF). The higher the number, the more efficient the clothes dryer. An electric heat pump clothes dryer can have savings 20% to 60% greater than a conventional clothes dryer. Additionally, electric clothes dryers offer improved health and safety over gas clothes dryers by removing the risk of toxic air pollutants from natural gas appliances.

How it works

Clothes dryers work by tumbling the load in a heated drum to remove moisture through evaporation. The most efficient type of electric dryer is a heat pump clothes dryer. Like the heat pump air conditioner and heat pump water heater, the heat pump clothes dryer uses the heat in the surrounding air, so no heating element is needed. Heat pump clothes dryers recirculate the exhaust air back to the dryer in a closed cycle. One thing to note is that heat pump clothes dryers reach a lower maximum temperature therefore they will take longer to dry clothes than a traditional electric or gas dryer.

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • Energy efficient • Improved health and safety	• This may require installing a new 240 volt outlet and a potential electric panel upgrade • Heat pump clothes dryers take longer to dry clothes than a traditional electric or gas clothes dryer

Electric Yard Care Equipment

Want to mow your lawn without disturbing the entire neighborhood? Typically, yard care equipment (lawnmowers, leaf blowers, hedge trimmers, string trimmers, chainsaws, etc.) have been gasoline-powered, which are loud, heavy, high maintenance and require storing gasoline. Gasoline-powered yard care equipment is a source of high levels of localized emissions that include hazardous air pollutants, and carbon dioxide. These can lead to adverse health effects including cardiovascular disease, stroke, respiratory disease, cancer, neurological conditions, premature death, and effects on prenatal development[7]. Electric yard care equipment is a great option to eliminate emissions and the associated health risks. Electric versions of lawnmowers, leaf blowers, hedge trimmers, string trimmers, and chainsaws are available.

How it works

Electric yard care equipment operates on electricity rather than gasoline. They can either be cordless (battery operated) or corded.

7 epa.gov/sites/default/files/2015-09/documents/banks.pdf

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • Much quieter • Lower maintenance - no need to refill gasoline and replace oil or air filters compared to gas-powered counterparts • Improved health • Removes risks associated with storing gasoline on the property	• Corded versions must be plugged in and cords must be managed while working • Larger jobs may take longer than the time available per battery charge, requiring multiple batteries • Cordless options will require replacement and recycling of batteries at end of life

Fireplace

During the colder months of the year some people like to get cozy by turning on the fireplace. While this seems like a nice idea, the reality is that fireplaces are an inefficient way to warm up the room. They also create fumes, can pose a fire safety hazard and waste energy. Wood-burning fireplaces need to be cleaned up after each use and must be periodically inspected and have the chimney cleaned.

The heat that disappears up the chimney draws cool air into your house, and that air must then be warmed by your heating system. This happens even when the fireplace is not in use and the flue is closed, although it is worse when the flue is open.

An electric fireplace is a good option if you are looking for the ambiance of a fireplace and want to eliminate the negative impacts of a natural gas or wood-burning fireplace. It is similar to a space heater that provides warmth primarily right in front of it. However, this can increase your electric bill substantially if used often. We do not recommend adding an electric fireplace due to the high operating costs, but it is a good environmental substitute for those who want a fireplace but don't want the negative impacts that come from burning wood or natural gas.

How it works

An electric fireplace simply needs to be plugged into any electrical outlet to work. Some models are stand alone or built into an entertainment center and others are mounted on the wall.

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • Heating function can be turned off to allow only the ambiance of a fireplace • Improved health and safety • Can be run on Spare the Air days because there are no emissions • No maintenance • Portable units are options in apartments • Variety of electric choices	• Need to cap the natural gas line

Barbecue

Did you know that there are electric barbecue options too? While charcoal, propane or natural gas barbecues are more traditional, an electric grill can do the job. It's also a safer and healthier option because it lowers the risk of a grilling fire and avoids using natural gas or propane that generate toxic air pollutants.

How it works

Electric barbecues simply need to be plugged into an electrical outlet to work.

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • Best for the environment • Improved health and safety • Easy to use	• No charcoal/smokey flavor, but you can use liquid smoke on an electric grill • Requires an exterior electrical outlet

Pizza Oven

While pizza ovens are less common than the other appliances we've covered, they are becoming increasingly more popular. Pizza ovens have traditionally used wood for fuel, but there are also gas and electric alternatives. An electric pizza oven is a great alternative to make delicious pizza at home and is less expensive than building a traditional pizza oven in your backyard. It's also easier to use with precise controls and provides even heating. Electric pizza ovens are a healthier and safer option. They do not use any gas which avoids the health impacts of gas highlighted in previous sections. Electric pizza ovens come in a variety of sizes with both indoor and outdoor options available.

Pizza ovens can also be used to bake more than just pizza. For example, you can use them to bake bread and cookies, too!

How it works

Like the electric barbecue and fireplace, an electric pizza oven just needs to be plugged in to an electrical outlet to work.

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • Best option for the environment • Improved health and safety • Easy to use	• Requires an electrical outlet

Pool Heater

Pool heaters come in a variety of options, including natural gas, propane, electric resistance and heat pump pool heaters. If you don't have an electric pool heater, consider making the switch. Heat pump pool heaters are the most efficient option. According to the federal efficiency test procedures, heat pump pool heaters have an efficiency of 300%-700%[8].

How it works

Like the other heat pump technologies we have highlighted, heat pump pool heaters transfer heat from the outdoors into the water using refrigerants in a loop.

HIGHLIGHTS	THINGS TO CONSIDER
• All electric means no GHG emissions with Silicon Valley Power's power supply • Energy efficient • Lower annual operating cost, resulting in lower utility bills	• Higher initial cost • Heats pool slower than a natural gas or electric resistance pool heater • Works less efficiently if the outside temperature is below 45°F-50°F

INCENTIVES AND REBATES

There may be incentives and/or rebates for making the switch to electric appliances. Visit our website at SiliconValleyPower.com/Residents to view current programs. Federal tax credits may also be available. Consult your tax advisor for more information.

8 *energy.gov/energysaver/heat-pump-swimming-pool-heaters*

THINGS TO CONSIDER WHEN ELECTRIFYING YOUR HOME

Here are some of the things you will need to consider when switching to electric appliances.

Electric Panel Upgrade

When you electrify your home, it increases the load on your electric service and it lowers or removes your gas usage. This increased load may require an electric panel upgrade. Talk with a contractor to find out if your current electric panel can accommodate the increase in electric load.

If you need to upgrade your electric panel, consider upgrading to a smart electric panel. A smart panel allows you to monitor and control individual circuits and may include capabilities to notify you when equipment is running abnormally and needs service. Smart panels can also help avoid electric service upgrades, which is a benefit to you and to the utility, as transformers don't need to be replaced with larger capacity transformers.

Traditional electric panels are sized assuming that all appliances may be drawing power at the same time. A smart panel monitors electric loads throughout the home and automatically pauses predetermined circuits when your total consumption exceeds your home's electric capacity. It allows them to resume when electric usage drops below the maximum capacity.

Utility rebates and Federal tax credits may be available to assist with the cost. Check our website at SiliconValleyPower.com/Residents for current program offerings and consult your tax advisor about potential tax credits.

Permits

A permit may also be required when electrifying certain equipment. Examples include replacing a water heater or upgrading an electric panel. Contact the City of Santa Clara Permit Center for more information.

SantaClaraCA.gov/PermitCenter

Budget

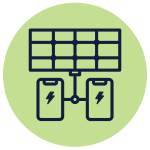
The cost for electrifying your home can vary significantly depending on the type of equipment you are electrifying, how many appliances you are converting, the brand and model you select, the cost of the installation where applicable and any costs associated with an electric panel upgrade, if needed. We recommend you do your research and obtain at least three bids for any project.

Solar

Solar photovoltaic (PV) panels capture sunlight on your roof and convert it into electricity. This electricity provides power to your home. As you electrify your home, more of your load will move from natural gas to electricity. You may want to consider offsetting your increased electric load by installing a rooftop solar system. Before talking with contractors, review our California Solar Consumer Protection Guide at SiliconValleyPower.com/Solar.

Consult with your tax advisor about any potential federal tax credits.

Battery Storage



If you already have a rooftop solar system, you may have thought about installing a battery storage system as well. While a solar system only generates electricity when the sun is shining, adding a battery storage system allows you to store excess electricity generated during the day and use it at night. As you electrify your home and increase your electric use, pairing a solar system with battery storage can help you offset the increased electric loads. However, battery storage systems are relatively new technology and still have high upfront costs, so you will need to consider whether this makes financial sense for you.

Consult your tax advisor to see if there are any federal tax credits available if you install a solar system paired with battery storage.

Electric Vehicle (EV)

If you have an electric vehicle, you have already done your part and electrified your ride! Santa Clara is an ideal place to own and charge an EV as we provide 100% carbon-free power to all Santa Clara residents. This means that when you drive an EV, you are trading your fossil fuels (gasoline or diesel) for energy coming from hydroelectric facilities, wind farms, geothermal facilities and solar power. When you choose an EV, you're using less fossil fuels than a traditional gasoline-powered car.

If you want to learn more about electric vehicles and incentives available, visit our website at SiliconValleyPower.com/EV.

Utility Costs

While switching from natural gas appliances to efficient electric options can save money on your utility bill in some cases, it is important to note that there are scenarios that may increase your overall energy costs. While your natural gas bill will go down, your electric bill could increase more than the savings on your gas bill. Use the Silicon Valley Power Residential Electrification Estimator to help estimate your potential utility costs based on different electrification scenarios.

ESTIMATING YOUR NEW ENERGY COSTS

Silicon Valley Power Residential Electrification Estimator

The Silicon Valley Power Residential Electrification Estimator is a tool designed to assist homeowners in understanding how their energy, cost and greenhouse gas emissions will change when electrifying systems (HVAC, water heating, cooktop, range, oven and clothes dryer) in their home. You can download the Residential Electrification Estimator from our website at SiliconValleyPower.com/ElectrificationEstimator

Disclaimer: This tool is meant to give customers an estimate of electrification costs. Silicon Valley Power does not guarantee the results from the Residential Electrification Estimator.

CONCLUSION

Electrification can improve health, safety and comfort in your home; reduce greenhouse gas emissions; and potentially save you money. As you go through your electrification journey, be sure to use this guide and the Silicon Valley Power Residential Electrification Estimator to help you make informed decisions.

NOTES

NOTES

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Powering **The Center of What's Possible**

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