The High Performance All-Electric Home

Live in a safer, healthier and more comfortable home with lower energy bills and reduce carbon your carbon emissions by 5-12 Tons per year .

The all-electric home provides the best solution to increase home performance and comfort while also dramatically reducing carbon emissions in both new construction and existing homes. Modern, high efficiency electric solutions provide a premium living experience with multiple advantages over gas-powered homes or homes with electric resistance heating.

Improved Comfort and Performance

Modern electric appliances outperform their gas powered and older electric counterparts to deliver a better living experience. They provide more control and precision and can be adjusted remotely through the internet. They provide evenly distributed heating *and* cooling, and perform effectively in cold climates without the need for gas backup.

Lower Energy Costs

Avoiding costs from gas piping, service installation and monthly service fees will offset the slightly higher initial costs of high efficiency electric appliances. Heat Pump space and water heaters are 3-5 times more efficient than gas or resistance electric devices, saving homeowners hundreds of dollars per year in operating costs.

Lower Carbon Emissions

Space heating, cooling and water heating are a home's largest sources of carbon emissions. All-Electric Homes do not burn fossil fuels on site for energy and operate with much higher energy efficiency, dramatically reducing the emissions from heating and cooling. ***When electric appliances are powered by renewable energy, their emissions will go to zero.***

Superior Air Quality and Lower Health Risk

Eliminating on site fuel combustion for heating and cooking avoids the dangerous by-products of gas combustion such as CO and NO2 which are linked to serious health risks. The more continuous air movement from heat pumps also enables more air filtration for cleaner indoor air. Burning fossil fuels is one of the primary sources of smog and air pollution, so eliminating this fuel in our homes helps improve indoor and outdoor air quality.

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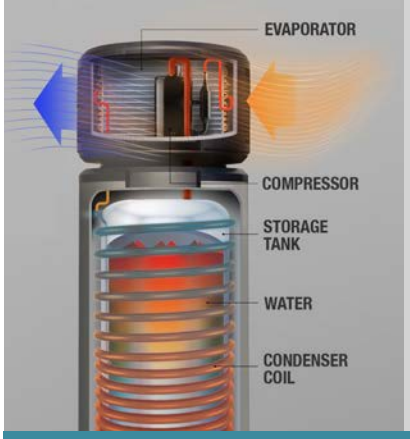
Heat Pump Water Heater

Heat pump water heaters, aka hybrid water heaters, are the most energy-efficient water heaters on the market.

Heat pump technology captures ambient heat from the surrounding space and transfers the heat to the water in the tank. Because it is 3-5 times more efficient than electric resistance or gas fired solutions, a heat pump water heater can avoid 1-3 Tons of carbon emissions and lower your energy bills. *Emissions from heat pump water heaters will go to zero as the grid continues to get cleaner every year.*



First steps for installing a heat pump water heater

- **Find a good place for it.** HPWHs require 450-700 cubic feet of space to operate most efficiently. Units can be installed in smaller areas with ducting.
- **Upgrade wiring if needed.** Most HPWHs require a 30 Amp, 240V circuit. If you currently have a gas water heater, you will likely need a new dedicated circuit to be installed by an electrician. 120V plug-in heat pump water heaters plug into a standard outlet and can be used to avoid costly panel upgrades in some situations.
- **Get three quotes.** Get estimates from three plumbers or HVAC contractors with HPWH experience.

First steps for installing a heat pump for space heating and cooling

- **Get an energy audit.** Find out how well insulated and sealed your home is, and what upgrades you need.
- **Make your home energy efficient.** Weatherizing your home can save you hundreds of dollars on your energy bills, and you'll be able to install a smaller, less-expensive heat pump.
- **Get three quotes.** Get estimates from three heat pump HVAC contractors. Make sure they do a heating load calculation to properly size the system.

Heat Pump Space Heating and Cooling

Heat pumps heat more efficiently than gas furnaces and electric baseboard heat, and cool more efficiently than conventional AC.

An external unit absorbs heat from the outside air and conducts heat to an indoor air handler or wall mounted units that push warm air through the home. The same heat pump can provide high efficiency air conditioning in the summer. These systems are effective in even the coldest areas of the U.S. and provide more air filtration and more even heating than gas systems. Ductless heat pumps and cold climate heat pumps produce the most heat for the money and the lowest carbon emissions. Heat pumps can help you to avoid 4-8 Tons of carbon emissions per year. *Emissions from heat pumps will go to zero as the grid continues to get cleaner.*

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Induction Cooking

Induction cooktops are faster, easier to clean, and avoid indoor air pollution from gas combustion

Induction ranges and cooktops employ magnetic coils with digital controls beneath an easy to clean glass surface. The coils heat the cookware, but the glass surface itself does not get hot. This creates a safer cooktop which heats food twice as fast, provides more precise temperature control and more immediate temperature changes for a better cooking experience than either gas or electric resistance stoves. Because there is no fuel combustion, induction stoves produce no dangerous CO and NO2 emissions which are unavoidable with gas powered ranges. The pollutants from gas stoves are linked to higher risk of asthma, especially in children. Studies find that peak indoor air pollution from gas burning stoves can reach levels that would be illegal outdoors.

First steps for installing an induction range

- **Upgrade wiring if needed.** If you are upgrading from an all gas range, you may need a 40 or 50 Amp, 240V dedicated circuit installed by an electrician.
- **Test your pots and pans.** If a magnet sticks to the bottom of your pots and pans, you're good to go! Most stainless steel, cast iron and ceramic pans will work with induction, aluminum and copper will not.
- **Select and purchase an induction stove.** Read reviews and shop around to find an induction range or cooktop that meets your needs.

Electric Fireplace Insert

Get temperature control and versatility.

An electric fireplace insert is an excellent alternative to gas, provides on-demand space heating and ambience without the carbon emissions or indoor air quality issues associated with gas. The units require no external venting and run off 110V supply. They come in a variety of configurations and aesthetic options with realistic flames and decorative media options such as stones, glass blocks or logs. They allow temperature control, require no cleaning and are safer because their external surfaces do not get hot.

Electric Clothes Dryer

A low carbon alternative to gas dryers.

For a modest cost, gas-powered clothes dryers can be replaced with electric or electric heat pump dryers to avoid carbon emissions. Most of the energy for drying clothes is used for heating, so running an electric clothes dryer on low heat or using a heat pump dryer will save energy, lower costs and carbon emissions and protect clothing from the damage from high heat. Heat pump dryers are the most energy efficient dryers available and have the added advantage that they need no external venting. Some new heat pump dryers actually combine a washer into one unit to make for the easiest laundry experience possible!

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Live in a safer, healthier and more comfortable home

Save money on energy costs

Reduce air and water pollution

Help prevent the worst effects of climate change

Trusted Suppliers

Strong warranties and dependable service.

All the major manufacturers of home appliances are committed to modern electric solutions and back these products with warranties that are at least as strong as conventional models.

GE, Amana, LENNOX, DAIKIN, TRANE, KitchenAid, American Standard, Carrier, LG, SAMSUNG, FRIGIDAIRE, A.O. Smith, Rheem, YORK, Goodman, MITSUBISHI ELECTRIC, WOLF, JENNAIR

Go Electric!

Helpful resources for transitioning your home to high-efficiency electric:

Rewiring America Home Electrification Planner: ***homes.rewiringamerica.org***

The Switch is On: ***switchison.org***

Electrify Now: ***electrifynow.net/take-action***

Electrify Oregon: ***electrifyoregon.org***

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