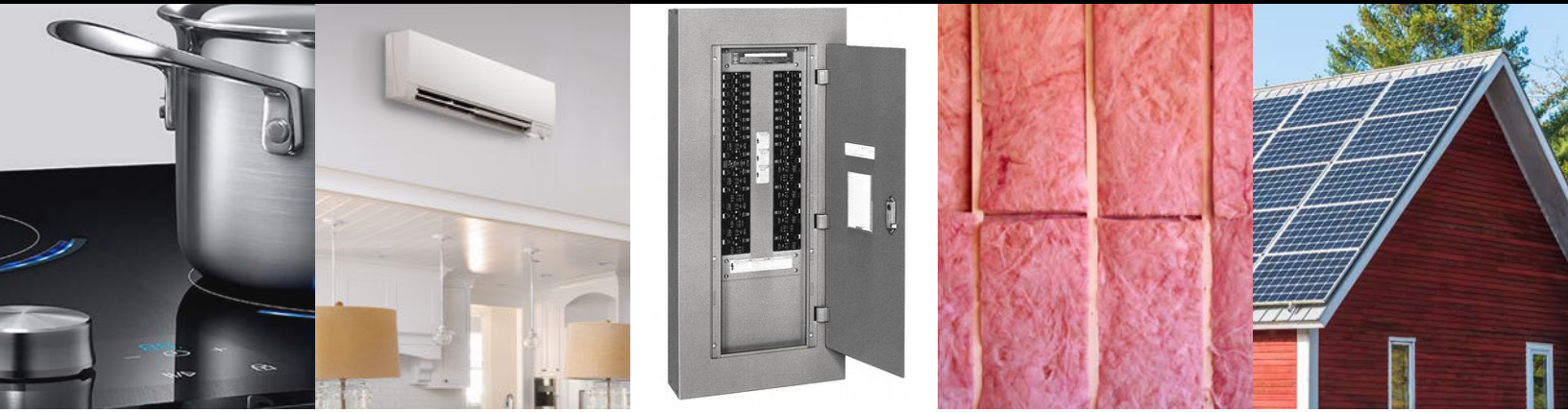


# How to get started



## Tips and recommendations for homeowners wanting to electrify

Electrifying your home is an exciting project that will result in a safer, more comfortable place to live – but it can be overwhelming, especially if you have an older home or a home with lots of gas appliances. There is not one way to do this – every home and homeowner is different. It can be a long term project to transition completely off of fossil fuels, so you don't have to do everything all at once. Below are some ideas and tips to help you get on your way.

### 1. Take stock of what appliances you have and their age

A good place to start is to make a list of the following devices and note their fuel type and approximate age

**Furnace/Space Heating (HVAC)** – gas, oil, propane, electric baseboard, electric furnace – age

**Air Conditioner** – age

**Water Heater** – gas, propane, electric – age

**Cooktop/Range** – gas, propane, electric – age

**Fireplace insert** – gas propane – age

### 2. Get a home energy audit

A trained professional can give you really good information about your home to help you make informed decisions. A home energy audit typically includes assessment of insulation and weatherization, heating and air conditioning systems, and electrical systems so you know what you might need to do and often includes a project proposal so you can see the costs involved. These typically cost \$150 – \$500 and can be worth every penny. Go to [bpi.org](http://bpi.org) to find a licensed professional home performance contractor near you.

### 3. Start with what is most important to you

#### Want cleaner indoor air? – start with an induction stove

Gas stoves do not produce near as much carbon emissions per year as gas furnaces or water heaters, but they produce indoor air pollution that is a threat to your families health. Induction stoves do not produce the harmful by-products of combusting gas that can lead to higher risk of asthma and other respiratory problems. Induction stoves also perform better than gas stoves – quicker to heat, more precise temperature control, safer and easier to clean.

#### Want lower utility bills? – prioritize weatherization, replace an oil furnace or electric baseboard heating

Often the best way to reduce energy spending is to insulate your home and reduce air leaks with older windows and doors regardless of your heating system. Oil furnaces and electric baseboard heating are typically the two most expensive ways to heat homes and can result in thousands of dollars in energy costs per year. Replacing either of those systems with high efficiency heat pumps can cut yearly costs by 50 – 75%.

#### Want more whole home comfort? – prioritize heat pumps for space heating and cooling

Heat pumps can dramatically improve your comfort. Since they can heat and cool with the same equipment, you automatically get air conditioning, which is becoming more important even in cooler parts of the country. Many older homes have smaller ducts to upstairs rooms which can make them colder in winter and hotter in summer. It is possible to overcome this problem with combined ducted and ductless heat pump systems. Heat pumps also provide more consistent indoor temperatures and eliminate cold spots because they move more air more continuously.



### **Looking for the highest carbon reduction impact? – prioritize space heating/cooling and water heating**

Space heating is the largest sources of carbon pollution for any home. Replacing an oil, propane or gas furnace with an electric heat pump will dramatically reduce your homes carbon emissions. Gas or propane water heaters are the next most carbon polluting appliance. Heat pump water heaters provide a lot of carbon reduction bang for the buck since they are much cheaper to install but result in significant carbon reduction.

### **Worried about something failing? – prioritize your older appliances**

It is often wise to start with appliances that are nearing the end of their useful life. This often makes people feel good that they have gotten their moneys worth out of an appliance before they replace it. It definitely makes sense to replace aging appliances before they fail – it can be very unpleasant to be without heat or hot water while you are arranging for a replacement – much better to replace them when they are still working.

### **Want clean energy for your home? – prioritize rooftop solar**

There are many low cost ways to get clean energy to your home including green power plans and community solar, but installing rooftop solar is the highest impact way to do this. Your solar panels will be adding new clean energy to the grid and helping to reduce the systems wide costs to transition our electricity to clean renewables. And, you will save money on energy bills over time by generating your own electricity.

### **Can't afford to replace appliances at the moment? – start with the small things**

Anything that burns fossil fuels can be replaced with an electric alternative – bbq's, lawn mowers, leaf blowers and chain saws are a great way to start electrifying for only hundreds of dollars. An induction hot plate is a low cost way to avoid using a gas stove and try out induction before you replace a gas range.

## **4. Some tips on saving money**

### **Make a plan**

It may seem obvious, but having a plan can save you money by doing things in an efficient way. A home energy audit and project proposal will usually recommend what to do first or the most efficient sequence. A good example of this is weatherization and insulation. Sometimes it makes sense to start there, sometimes it is better to do the HVAC system first and insulation afterwards if work in the attic is required for installation of the heat pump system.

### **Think ahead on electrical upgrades**

Many of the actions you may be considering may need electrical work to make room in your electrical panel or run new wiring in your home. You can save money by doing all that electrical work at one time. Every time you do a separate electrical project, it can add \$500 to \$1,000 to the total cost. For example, if you are starting with a heat pump for space heating but you are contemplating an EV charger, or heat pump water heater, or induction stove in the future, talk to your electrician about doing some of that electrical work while they are wiring for the heat pump.

### **Avoid an electrical panel upgrade**

Most homes built after 1980 have a 200 Amp panel which is large enough to electrify easily. Some older homes have smaller 100 Amp panels. Upgrading to a larger electrical panel can cost thousands of dollars, but it is not always necessary. If your contractor recommends a panel upgrade, it can be smart to get a second opinion or ask about circuit sharing devices or installing a sub panel which can save thousands of dollars.

### **Take advantage of incentives**

Between the IRA Tax incentives, and incentives from utilities and local or state governments, you can lower installation costs by hundreds to thousands of dollars. Ask your contractor about this and research incentives available in your area.

Visit [electrifynow.net](https://www.electrifynow.net) for information and resources on all of this and more.