



# Why you should electrify your solar home

## What is electrification?

Electrification means switching to appliances that run on electricity. Electrifying your home makes your home safer and more comfortable while saving you money.

Combining electric appliances with solar panels makes your home powered by clean, renewable energy. This will save you money, protect your health, and clean the environment.

## Home electrification technologies

### Rooftop solar panels (and storage)

Any home can be electrified by replacing gas-powered appliances with electric ones. Adding solar panels means clean, renewable energy powers your home.

Combining solar panels with battery storage will ensure your clean electric home has a resilient, reliable energy source at all times.

### Induction cooktops

Induction cooktops are different from standard electric cooktops. Induction technology uses electromagnetic radiation to pass heat directly between a copper coil and your pot or pan.

Induction cooktops heat food quickly. They allow you to adjust temperatures rapidly. They are easy to clean. The cooktops stay cool while heating the pots. This reduces your risk of burns or fires. They are also 15-20% more efficient than standard electric cooktops. They are twice as efficient as gas. Induction cooktops require pots that are flat and magnetic. (If a magnet sticks to the bottom of your pot, it will work).

### Heat pumps for heating, cooling, and hot water

A heat pump uses electricity to transfer thermal (heat) energy between indoor and outdoor spaces. Pumps make warm places cooler and cool places warmer. Heat pumps can also be used to replace gas-powered hot water heaters.

Heat pumps are quiet, consistent, and cost-effective. They are more energy-efficient compared to traditional air conditioning, gas furnaces, and water heaters.

### Electric vehicles (EVs)

By charging your car in your solar-powered home, you can be sure your drive is powered by pollution-free, climate-friendly clean energy. The cost to maintain and repair EVs (no more oil changes!) is half that of gas-powered vehicles.

### Monitoring and control devices

Many new smart thermostats and energy management devices can help monitor and manage your home's electricity use. You save money by using less electricity when costs are high. Some devices can pause charging your EV while another appliance, like a washer or dryer, is running. Your EV will restart charging once the cycle is done.

## Benefits of an electric solar home

### Savings

The annual energy costs of an all-electric home will be less than a similar home that relies on gas for cooking and heating. Combining energy-efficient electric appliances with solar panels that help you generate your own electricity means even greater savings.

### Health

Indoor gas stoves cause pollution that is harmful to your family's health. Burning gas releases toxic chemicals like formaldehyde, carbon monoxide, nitrogen dioxide, and fine particulates. People with gas stoves in their homes have higher rates of asthma and lung disease than those with electric kitchen appliances.

### Safety

Electrifying your home will significantly reduce the risk of accidental fires and explosions. Gas explosions kill an average of 15 people in the U.S. annually. Electric induction stoves let you cook without a dangerous open flame.

### Climate

Burning fossil fuels like gas is causing the Earth's climate to warm. This increases extreme weather like droughts, heatwaves, wildfires, and strong hurricanes.

Addressing this crisis requires shifting away from fossil fuels toward clean, renewable energy, like solar. Powering our homes with electricity instead of oil and gas is a critical piece of the climate action puzzle.

### Comfort and ease

New electric appliances are efficient and simple to use. Electric heat pumps and air conditioners ensure a more consistent and even temperature in your home. They are quieter than a gas furnace. Electric induction stoves are easy to clean. They heat food more evenly and consistently. And, they keep your home cooler because they produce less waste heat than gas stoves.

Learn more about solar and electrifying your home.

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