

# Want to take a **BIG** step on climate? #ElectrifyEverything!

Here is some **GREAT** news — a solution to the climate crisis is at hand, we just need to hurry up and implement it! The three things we need to do:

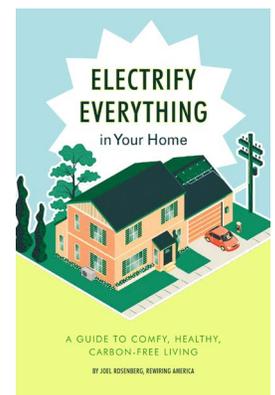
-  1. Clean the electric grid.
-  2. Electrify all vehicles.
-  3. Electrify all fossil fuel uses in our buildings — from space heating to cooking.

## Need more good news?

- Monthly utility bills for an all-electric home will be cheaper for most families. It's already less expensive to build new homes to be all-electric in most of the U.S.
- Modern electric machines work **BETTER** than fossil ones. For example, electric heat pumps make your home comfortable in both winter and summer, since they're just air conditioners that can run in reverse to also heat.
- All-electric homes are much healthier, with better indoor air quality and lower risk of asthma, fire, or carbon monoxide poisoning.
- You can be resilient to grid outages with solar panels and home battery storage.
- You'll lower your greenhouse gas emissions — towards zero when powered by renewables!

## What's the downside?

Right now the up-front cost can be higher for electric than non-electric machines, but that is changing as more are manufactured. If you replace each fossil-fueled machine with an electric one upon failure, it's only a little more expensive. The important thing is to **MAKE A PLAN** for what to do when something breaks, so you don't just buy the same fossil machine, and lock in another 20 years of emissions!



Download the **FREE** guide, "Electrify Everything in Your Home" for help getting started, and advice for working with your contractors — [rewiringamerica.org/electrify-home-guide](https://rewiringamerica.org/electrify-home-guide)

This chart shows ten things to electrify in your home, and the costs and benefits you might expect from each upgrade.



Life in years	Electrical upgrade	Up front costs (before rebates)	Annual operating savings	Harder	% home emissions	Improves air quality	Renter controls	
<b>1. Purchase Renewable Electricity</b>								
		\$0					R	
<b>2. Electrical Service</b>								
20-25 yrs 		\$750-4,000		✓				
<b>3. Heat Pump Space Heating and Cooling</b>								
15-20 yrs 	At install	\$1,000 DIY, to \$20,000+	\$\$\$	✓	25%		R	
<b>4. Heat Pump Space Water Heater</b>								
10-15 yrs 	Maybe	\$1,500 DIY, \$4,000 installed	\$		10%			
<b>5. Electric Cooking</b>								
13-15 yrs 	Yes	\$2,000-3,000			5%		R	
<b>6. Electric Clothes Dryer</b>								
10-13 yrs 	Maybe	\$1,000 - \$2,000	\$\$		3%		R	
<b>7. Electric Vehicles</b>								
20-25 yrs 		\$10K (used) and up	\$\$\$		50%		R	
<b>8. EV Charger (240V EVSE)</b>								
10-15 yrs 	Yes	\$500-2,500					R	
<b>9. Rooftop Solar PV Panels</b>								
20-30yrs 	At install	\$15,000-30,000	\$\$\$	✓	Helps All			
<b>10. Home Battery Storage</b>								
5-15yrs <sup>6</sup> 		\$10,000-20,000	\$	✓	Helps All			
\$: Save \$50+ per year; \$\$: Save \$200+ per year; \$\$\$: Save \$500+ per year					Indoor & Outdoor			Outdoor

To help you start making a plan to go all-electric, here's a list of things you can “do now” to make progress on each of the ten things — even if you're a renter.

DO NOW

### 1. Purchase Renewable electricity

Log on to your utility account (or call) and switch to a renewable power plan if it's available. If not, look for a Community Solar or Wind project to join. **RENTER:** Same.

### 2. Electrical Service

Check your electrical panel to figure out how it's sized (see Chapter 2: Electrical Service for instructions). **RENTER:** Same.

### 3. Heat Pump Space Heating and Cooling

Get a “home energy audit” or “home energy assessment” (including a blower door test), and/or schedule at least one heat pump contractor to come to your home and give you an initial quote/proposal. **RENTER:** Get a window unit or portable heat pump.

### 4. Heat Pump Water Heater

Find your current water heater and determine how old it is (see Chapter 4: Heat Pump Water Heater for instructions). Plan to replace it if it's over 10 years old. **RENTER:** Show your landlord heat pump replacement options & EnergyGuide savings.

### 5. Electric Cooking

Hold a magnet to your pans, and if the magnet sticks it will work with an induction cooktop (you can also get a converter for non-magnetic pans). Buy a \$50+ portable induction burner now, and plan to have a 240V / 40A outlet installed before you next replace your stove. **RENTER:** Buy a \$50+ portable induction burner.

### 6. Electric Clothes Dryer

Check if you have a gas dryer, or if you already have a 240V appliance outlet behind your dryer. Get a clothes drying rack or clothesline. **RENTER:** Get a clothes drying rack or clothesline, and consider a combo washer & condensing dryer that runs on 120V (if allowed).

### 7. Electric Vehicles

Go online to find an EV (or two) you'd want, and go take a free test drive. Consider how far you drive in a day to start thinking about range, and look online for public charging stations nearby to start thinking about where else you can charge. **RENTER:** Same.

### 8. EV Charger (240V EVSE)

If you have a garage, check if you already have a 240V appliance outlet for a faster “Level 2” charger. **RENTER:** Ask your landlord and employer about installing a Level 2 charger.

### 9. Rooftop Solar PV Panels

Use a website to check your address's potential for sun. Use energysage.com to get initial quotes. **RENTER:** Send quotes to your landlord, along with financing options.

### 10. Home Battery Storage

If you have rooftop solar, check with your installer about whether they also offer a storage option. **RENTER:** Get a standalone backup battery.



## Want to electrify beyond your own home?

Here are some community ideas we've found for helping neighbors electrify together, and policy ideas for lawmakers to get things moving faster.

### Community Ideas

**Electric home tours:** Already electric? Let others check it out. Example — [eastbaygreenhome.com](http://eastbaygreenhome.com)

**Common electrification contractor:** A city or neighborhood group picks a contractor to do many homes. Example — [portlandmaine.gov/2763/Electrify](http://portlandmaine.gov/2763/Electrify)

**Local stock of replacements:** Buy and store a few 240V 15A heat pump water heaters (or 120V retrofit-ready ones), and sell them to residents as emergency replacements when contractors don't have them in stock.

**City-sponsored electrification experts:** Menlo Park, CA has Josie Galliard and Tom Kabat making electrification plans for 10 homes. Overview talk — <https://vimeo.com/652117978>

**Neighborhood purchasing:** Get group discounts using Denver's roadmap — [denvergov.org/content/dam/denvergov/Portals/779/documents/residential-energy/NeighborhoodRoadmap.pdf](http://denvergov.org/content/dam/denvergov/Portals/779/documents/residential-energy/NeighborhoodRoadmap.pdf)

**Document how to buy renewable energy:** Help others switch to a renewable plan. See — [energysmartohio.com/all-electric/4-steps-buy-clean-renewable-electricity-price-dirty-electricity](http://energysmartohio.com/all-electric/4-steps-buy-clean-renewable-electricity-price-dirty-electricity)

**Community equipment lending:** Libraries can lend out IR cameras for DIY energy home improvements, or portable induction burners to try. Examples — [mygreenmontgomery.org/project/camera/](http://mygreenmontgomery.org/project/camera/) and [greennewton.org/induction-cooktops-now-on-loan-at-the-newton-free-library/](http://greennewton.org/induction-cooktops-now-on-loan-at-the-newton-free-library/)

**Contractor training programs:** Experienced home electrification professionals train other contractors. Examples — <https://aea.us.org/tech-electrification-knowledge-hub/?#courses>

**Bright Action community platform:** A way for groups to connect on electrification progress, whether as individuals (free) — [brightaction.app](http://brightaction.app), or with towns and businesses — [brightaction.com](http://brightaction.com)

### Policy Ideas

**Reach Codes:** Requires new construction to meet higher energy standards. Needs education, and either enforcement or incentives to help homeowners meet these new codes. Example — [bayareareachcodes.org](http://bayareareachcodes.org)

**Building Energy Performance Standards (BEPS):** Like reach codes for existing buildings (usually larger than 10,000 sqft). If locality lacks jurisdiction to implement BEPS, advocate with the city/county. Guide — [epa.gov/sites/default/files/2021-02/documents/benchmarking\\_building\\_performance\\_standards\\_section2.pdf](http://epa.gov/sites/default/files/2021-02/documents/benchmarking_building_performance_standards_section2.pdf)

**Energy Benchmarking and Disclosure:** Locality requires buildings to get a score/grade and make it public, so consumers can choose more efficient buildings with lower energy bills.

**Incentives:** Cash to reduce the upfront cost of electric replacements. Should include panel upgrades and enhanced incentives for low income households. More info: [energy.gov/eere/slsc/building-energy-use-benchmarking](http://energy.gov/eere/slsc/building-energy-use-benchmarking)

**Join Mayors & Municipal Leaders for Electrification:** Encourage your elected officials to become part of our coalition (try Twitter) — [rewiringamerica.org/policy/mayors-for-electrification](http://rewiringamerica.org/policy/mayors-for-electrification)

**Call Your Congress Members:** Ask them to pass the Climate Provisions from Build Back Better, and to join the Congressional Electrification Caucus — [congress.gov/members/find-your-member](http://congress.gov/members/find-your-member)

Got other ideas?

Email [hello@rewiringamerica.org](mailto:hello@rewiringamerica.org)

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