A Handy Guide to Home Electrification

For Single-Family Homeowners

PG&E

Get started >

Moving towards an all-electric home

California is moving toward all-electric buildings to achieve carbon neutrality by 2045. **Making your home fully electric will have a positive impact on the environment by cutting carbon emissions, while helping you reduce energy use, improve indoor air quality, and live more comfortably.**

Whether you are upgrading one appliance or designing an all-electric home, PG&E is here to support you.

We can help you maximize your cost savings and complete your electrification project as quickly and efficiently as possible.

PG&E is committed to healing the planet

In 2021, the electricity we delivered was 93% greenhouse gas emissions-free. And we're committed to reaching a net zero energy system in 2040—five years ahead of California's current carbon neutrality goal. We aim for this transition to be equitable and viable, leaving no one behind.

> **Learn more** about home electrification projects
> **Evaluate** what upgrades you can make
> **Review** the electrification process
> **Electrify** your home

Help with your home electrification project

When you are ready to start a project, there are many helpful resources available. An experienced professional can help you organize your electrification upgrade in manageable steps that build on each other and prevent missteps. A variety of programs and plans can help save you money during your project and beyond. And there are free project management tools, too.

1. **Licensed contractors** can provide expert guidance and know-how that may lead to potential savings. They may coordinate with essential third parties like city inspectors. And, if they are participating in the **GoGreen Financing Program**, they can help you set up financing with competitive rates, zero fees and no closing costs.

2. **Project incentives and rebate programs** that save you money are available from many sources. Check out the **list of resources** in the back of this guide.

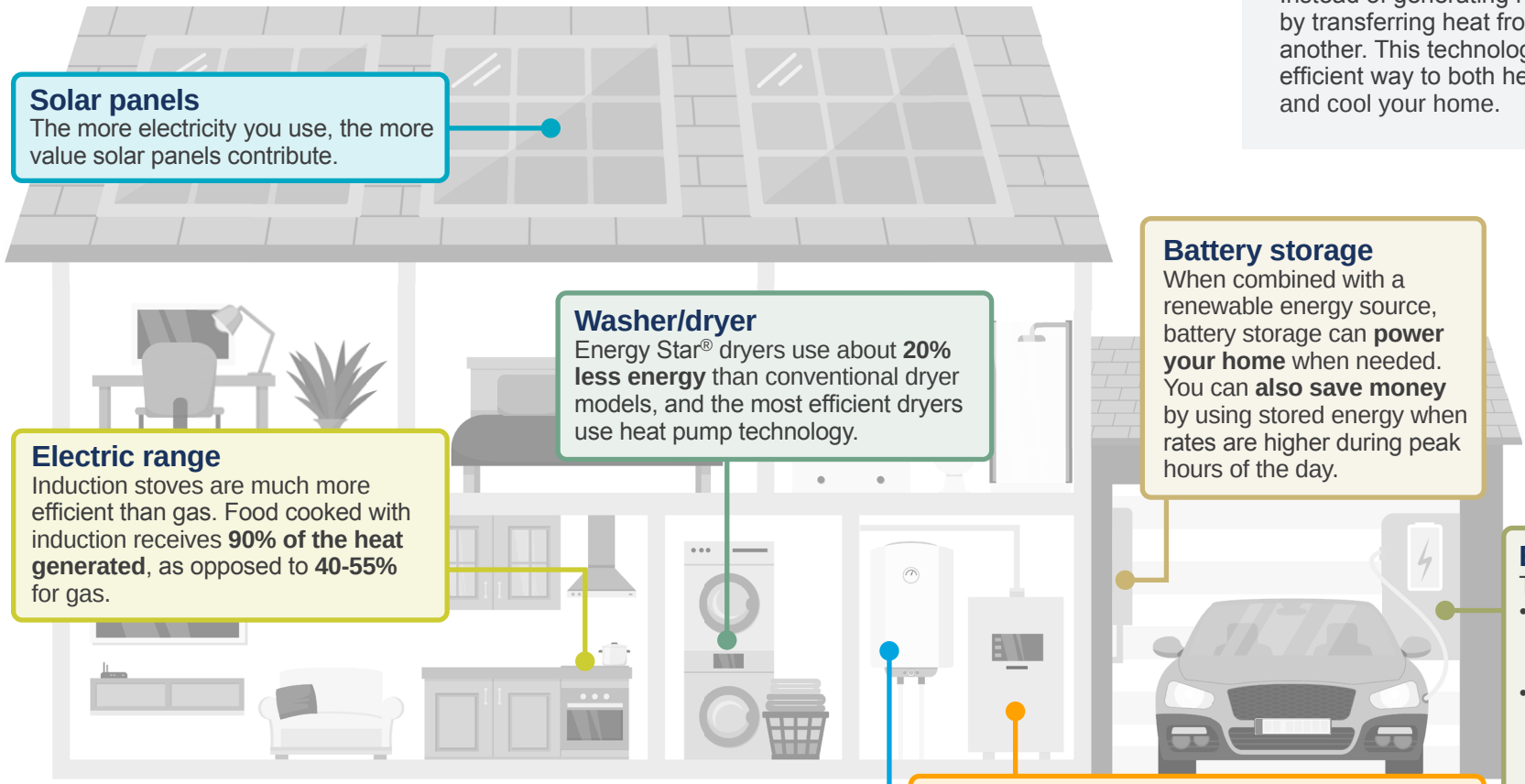
3. **Electric rate plan options** are available based on your home energy needs. **Compare plans** to pick the best one for you, based on how much electricity you use and when you use it.

4. **Online tools** are available to help you manage your project, modify your PG&E services and more via **Your Projects Platform**.

Home electrification options

Did you know heat pump technology is essential to moving to an all-electric home?

Instead of generating heat, it works by transferring heat from one place to another. This technology is the most efficient way to both heat water and heat and cool your home.



Solar panels
The more electricity you use, the more value solar panels contribute.

Washer/dryer
Energy Star® dryers use about **20% less energy** than conventional dryer models, and the most efficient dryers use heat pump technology.

Battery storage
When combined with a renewable energy source, battery storage can **power your home** when needed. You can **also save money** by using stored energy when rates are higher during peak hours of the day.

Electric range
Induction stoves are much more efficient than gas. Food cooked with induction receives **90% of the heat generated**, as opposed to **40-55%** for gas.

EV charger
Two different levels:
- Level 1: Plug your EV into a standard 110-volt wall outlet.
- Level 2: Charge your EV **4 times faster** than a Level 1. Requires 240-volt wall outlet professionally installed on a dedicated circuit.

Water heater
Heat pump technology is **3 to 4 times more efficient** than gas water heaters.

Furnace/AC
Heat pump systems do the work of both AC units and central heaters and are **4 times more efficient** at warming your home than a gas furnace.

Compare and buy energy-efficient appliances at the Energy Action Guide

What to consider when getting started

Identify the project scope with your contractor

Working with a licensed contractor, you can identify the most cost-effective and energy-efficient appliances for your project, as well as what new technology you want to add.

Once you know exactly what you want to do, your contractor can determine how much power your home will need after your upgrades.

To search for a local contractor by location, specialty and more, visit **Switch is On**.

Does your electrical panel need an upgrade?

Your home is wired to use a set amount of electricity, and older homes typically have less capacity.

If your home upgrade plans will require more power than you have now, you will have to increase the amount of power coming in. This is called a "service panel upgrade."

Upgrading your panel will likely cost between $2,000 - $6,000, depending on its age.

Avoid electrical panel upgrades

You may be able to electrify with your existing panel if you select appliances that fit within its limits. Here are some additional options:

Smart panels and combiner panels enable you to manage the load on individual electrical circuits based on your energy needs and pre-determined settings.

Circuit sharing devices enable you to have several outlets in your home share a single circuit. This device automatically prioritizes the load, so your outlets are never asked to provide more than they can deliver.

All-electric baseline cost savings

As part of your rate plan, energy used within your baseline allowance is billed at the lowest price. The price increases as you use more energy and move beyond the allowance amount during your billing cycle.

The **all-electric baseline** offers a higher baseline for customers that install permanent heating systems (e.g., Heat Pump space heating). An increase in your baseline quantity will increase the amount of energy that is billed at the lowest rate.

To request an all-electric baseline allowance, call PG&E at **1-800-743-5000**.

Choose the rate plan that best fits your household

As you transition from gas to electric appliances, your overall electricity usage will rise. However, your total energy expenses may fall due to the increased efficiency of electric appliances or electric vehicles versus older fossil fuel costs.

This is a good time to move to a rate plan that best suits your new needs. PG&E offers a variety of rate plans to help you maximize the benefits of moving to an all-electric home.

Review rate plan options for your electrification project >

Rate plan options for your electrification project

Electric Home Rate Plan (E-ELEC)

This rate plan can be a good option if you have one or more of these technologies:

- Electric vehicle (EV) charger
- Battery storage
- Electric heat pump for water heating or climate control

Time-of-Use Rate Plans

These rate plans offer lower prices when renewable energy is more plentiful and demand is low.

You can cut costs by shifting your energy use to partial-peak or off-peak hours of the day, when rates are lower.

Electric Vehicle (EV) Rate Plans

If you own an EV and charge at home, you are eligible for rate plans which help you lower your energy costs:

Home Charging EV2-A: Combines your vehicle's electricity usage with your home's electricity usage. Electric heat pump appliances and battery storage also qualify for this rate.

EV-B: Separates your vehicle's electricity usage from those of your home and requires a second meter.

Both EV rate plans are Time-of-Use, so there are different prices for electricity depending on the time of day.

Compare electric rate plans in your online account and find the best one for you >

Who's responsible for each step?

There are three key roles

You: Project recipient

Provide overall direction, select new appliances, and pay for behind-the-meter costs, as well as front-of-the-meter costs where applicable.

Your contractor: Project developer, Installer

Provide expertise and management, create documentation, determine the right panel size, attain necessary permits, and complete project installation.

PG&E: Engineering, review, and approval

Ensure you safely get the energy you need, estimate all front-of-the-meter costs, perform all front-of-the-meter construction, and handle disconnect/reconnect services.

What these terms mean

Front-of-the-meter
refers to all the wiring and other infrastructure required to bring power to your house. PG&E will cover $3,225 worth of expenses per meter to enable your electrification project. Any amount exceeding this allowance would be your responsibility.

Behind-the-meter
refers to all wiring within your home. You are responsible for any upgrades needed here to facilitate your electrification project.

Lifecycle of a home electrification project

Planning

1 Find a reputable, licensed contractor to review desired electric appliances

2 Finalize project scope, electric panel work and identify local, state and PG&E incentives

Application

3 Submit application including plans to PG&E

PG&E responds in 3 days

4 Verify all required documents have been submitted

About 60 days

Load Assessment

5 Infrastructure assessment for front-of-the-meter sufficiency

About 30 days

6 Upgrade required?
Yes, go to 7
No, skip to 9

Design and Construction

7 Complete estimate and design, sign contract and make payment

About 160 days

8 Construction, schedule disconnect/ reconnect service

About 160 days

Electrification

9 Schedule disconnect/ reconnect and install new appliances

About 30 days

10 Enroll in the best rate plan for your new electric home

Timelines may vary based on project specifications.

How to disconnect your gas service once you've gone all-electric

After your home has converted to all-electric, you can safely stop gas services by submitting an application to modify your services.

PG&E will ensure that all gas infrastructure is safely depressurized and removed from your home.

You'll also eliminate the minimum daily charge to remain connected to the gas system. It's about 13 cents a day.

If you've had gas service for more than 10 years, it'll be discontinued at no cost to you. If less than 10 years, we will provide an estimate of your costs after you submit an application for removal.

Apply online at yourprojects-pge.com

You can also speak to a representative at 1-877-743-7782

Ready to get started?

Here are your next steps:

1. **Review new electric appliances**. PG&E's Energy Action Guide can help you find the latest energy-efficient options, all in one place.

2. **Find your contractor**. They will be your go-to resource, so it's important to find someone you work well with.

Browse appliances at the Energy Action Guide >

Find a licensed contractor >

Submit your project application >

Quick resources

Contractors

Find a licensed contractor near you:
switchison.cleanenergyconnection.org

Check your contractor's license:
cslb.ca.gov

Learn more about GoGreen Financing and find participating contractors:
gogreenfinancing.com/residential

Planning

Watt Diet Calculator: Avoid electric panel upgrades by selecting efficient products and using load sharing devices with this tool.
redwoodenergy.net/watt-diet-calculator

Electric Rate Plans

Review your rate plan choices and find the best option for your household:
pge.com/rateanalysis

Learn more about:

- Baseline Allowance
  pge.com/baseline
- Electric Home Rate Plan (E-ELEC)
  pge.com/electrichome
- Time-of-Use Rate Plans
  pge.com/touinfo
- Electric Vehicle Rate Plans
  ev.pge.com/rates

EV Resources from PG&E

EV Savings Calculator: Estimate and compare costs, savings and more.
ev.pge.com

EV Charging: Get help with choosing and installing the right charging station for your home.
pge.com/evcharging

EV Rate Plans: Identify the lowest cost electric rate for your EV.
ev.pge.com/rates

Incentives

Check with your contractor to learn more about latest incentives.

Golden State Rebates: Get instant savings on energy-efficiency products.
goldenstaterebates.com

The California Energy-Smart Homes Program: Take advantage of incentives offered for residential new construction and alterations.
caenergysmarthomes.com

EV Resources and Rewards from the California Air Resource Board: Review resources available from local retailers to learn more about the benefits of owning an EV and California Clean Fuel Rewards.
cleanfuelreward.com