

A Handy Guide to Home Electrification

For Single-Family Homeowners







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 improve indoor air quality and live more comfortably.

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

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

SCE is committed to a clean future

In 2023, SCE delivered 52% carbon-free power in terms of retail sales to SCE customers, 55% cleaner than the national average, while committing to reach 100% by 2045. We're also committed, in alignment with California's goals, to achieving net-zero GHG emissions across Scopes 1, 2 and 3 by 2045

- > 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.

- 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 will be your key stakeholder in bringing your project to fruition. 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. If they are a TECH Clean California contractor, which can be found on The Switch Is On, they can also assist in claiming rebates for your electrification project, subject to availability.
- **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.
- **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.



Home electrification options



Compare and buy energy-efficient appliances at the <u>SCE Marketplace</u>

What to consider when getting started

Identify the project scope with your contractor



Avoid electrical panel upgrades Baseline allocation cost savings

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 and assist in identifying potential incentives to reduce costs. To search for a local contractor by location, specialty and more, visit **The Switch Is On**. 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 may, depending on the project, have to increase the amount of power coming into your home. This is called a "service panel upgrade."

Upgrading your panel will likely cost between \$2,000 -\$6,000, depending on its age. You may be able to get your panel upgrade financed through the **GoGreen Financing Program**. 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 predetermined 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. As part of most time-of-use rate plans, energy used within your baseline allowance is billed at the lowest price. The price increases as you use more energy beyond the allowance amount during your billing cycle.

For select timeof-use rate plans, the **all-electric baseline** offers a higher baseline for customers that install permanent heating systems (heat pump space heating) and heat pump water heaters. An increase in your baseline quantity will increase the amount of energy that is billed at the lowest rate.

To request an increased baseline allowance, call SCE at **1-800-743-1645**.



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 fossil fuel costs. SCE's **Countdown to 2045** highlights these benefits of electrification, anticipating that the average customer's total household energy bills will decrease by about 40% due to savings from decreased or eliminated fossil fuel use.

This is a good time to move to a rate plan that best suits your new needs. SCE 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

	RATE PLANS	FIT YOUR LIFESTYLE?	PLAN DETAILS
Time-of-Use (TOU) Rates TOU rate plans are based on how much and when you use energy, varying based on the time of day, day of the week, and season. Electricity rates are lower on nights and weekends but go up during peak hours when energy resources are in demand.	TOU-D-4-9 PM Offers control of electricity costs by utilizing lower cost time periods.	 Small to medium home Occupants home in the late evening Low energy use weekends 4 - 9 p.m. Rarely use A/C in summer 	 Seasonal rates¹ Lowest rates: Winter: 8 a.m 4 p.m. Summer: 8 a.m 4 p.m. and 9 p.m 8 a.m. Highest rates: All year 4 - 9 p.m.
	TOU-D-5-8 PM Offers control of electricity costs by utilizing lower cost time periods.	Small home or apartmentOccupants home during day on weekdaysOccupants home burne during day on weekdaysOccupants home burne during day on weekdays	 Seasonal rates¹ Lowest rates: Winter: 8 a.m 4 p.m. Summer: 8 a.m 5 p.m. and 8 p.m 8 a.m. Highest rates: All year 5 - 8 p.m.
	TOU-D-PRIME² Offers lower, off-peak variable charges compared to other TOU Rates, but a higher-fixed charge.	kWh High energy userImage homeImage home	 Seasonal rate¹ Lowest rates: Winter: 8 a.m 4 p.m. Summer: 8 a.m 4 p.m. and 9 p.m 8 a.m. Highest rates: All year 4 - 9 p.m.
Tiered Rates Tiered rates are based on how much energy you use. Customers pay a single rate for a "baseline" amount of energy each month. Once that allotment is used, the rate climbs to a more expensive tier.	TIERED Offers tiered pricing based only on energy used, rather than time or season.	kWh ↓Low energy user♪Small home or apartment	 Lowest rates: Tier 1 has the lowest price per kWh. If you use more energy than your baseline allocation, then the price climbs to Tier 2. Highest rates: High usage charge applies when usage exceeds 400% of baseline allocation.

Get more information on rate plans or use your account's rate comparison tool to see which plan is best

¹ TOU rates offer seasonal pricing with a Winter season from October - May and a Summer season from June - September.

² A rate for electric vechicle owners and lessess, customers with energy storage systems, or customers with an electric heat pump system for water or space heating.

As of October 1, 2022, customers on TOU-D-4-9 P.M. and TOU-D-5-8 P.M. rate plans will be offered an additonal baseline allocation for Heat Pump Water Heater.



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.



SCE: 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. For all electric houses or existing services, SCE provides an allowance of about \$5,700 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







Generating your own Power



Getting Ready to "Go Solar"? Going solar for your home is as easy as these 5 steps:

- **Get Informed:** Research solar energy basics and assess your home's solar potential, including roof condition, orientation, and shading
- **Consider Energy Efficiency:** Improve home energy efficiency first to reduce overall energy needs, making a solar system more effective.
- **Choose a Contractor:** Select a licensed, reputable contractor. Get multiple quotes and check references to ensure quality work.
- **Installation:** The contractor will install the solar system, typically taking a few days to a week. Ensure all permits and inspections are completed.
- **Interconnection:** Work with your contractor to connect the system to SCE's grid. Complete necessary paperwork and inspections to start generating solar power.

For more details, visit <u>SCE's Solar Power page</u>.

Also, Check out the <u>California Solar Consumer</u> <u>Protection Guide.</u>

Ready to get started?

Here are your next steps:



Review new electric appliances. SCE's Marketplace can help you find the latest energy-efficient options, all in one place.

Browse appliances at the SCE Marketplace



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

Find a licensed contractor and begin your project





Quick resources

Contractors	 Find a licensed contractor near you: switchison.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: sce.com/residential/rates/rate-plan-comparison-tool Learn more about: • Time-of-Use Rate Plans sce.com/residential/rates/Time-Of-Use-Residential-Rate-Plans • Tiered Rate Plans sce.com/residential/rates/Standard-Residential-Rate-Plan
EV Resources from SCE	EV Home Page sce.com/residential/ev-overview EV Rebates and Rates: Get help with choosing and installing the right charging station for your home. sce.com/residential/ev-rates-rebates EV Charging Insights sce.com/residential/ev-charging
Incentives Check with your contractor to learn more about latest incentives.	 Switch is On: Use this tool to find incentives and programs available in your area. incentives.switchison.org 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.

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