

# Powering Your Home with Solar Energy





# Putting Your Roof to Work

- ▶ The sun is waiting to turn your roof into its own miniature electrical power plant. Using solar energy to power your home not only lowers your energy costs over time, but also generates electricity free of harmful carbon dioxide (CO<sub>2</sub>) emissions and other greenhouse gases. The California Solar Initiative makes powering your home with clean, renewable energy easier than ever before by providing an incentive for qualifying photovoltaic systems. PG&E, a proud program administrator for the California Solar Initiative, is ready to help you go solar today.

# Environmental and Financial Incentives for Going Solar

- ▶ The sun provides natural, renewable energy. Solar energy offers many environmental benefits including:
  - (1) the potential to reduce the production of CO<sub>2</sub> – a leading contributor to global climate change;
  - (2) reduced dependence on fossil fuels; and
  - (3) clean, affordable electricity.

In addition to its environmental benefits, solar energy also makes good financial sense. Using solar as your primary energy source can help to lower your monthly electricity bill. PG&E can help lower the cost of solar panels with an incentive paid through the California Solar Initiative. And currently, there is a valuable federal tax credit available to help offset some of the solar installation cost.

With the partnership of PG&E and the California Solar Initiative, powering your home with solar energy is both a smart environmental and financial decision.

## PG&E's Commitment to Solar Energy

- ▶ PG&E has a long history of developing, generating and purchasing renewable power. For the past few years, we have taken an active leadership role in solar by educating customers, working with solar installers and hosting solar workshops. To date, PG&E has connected more solar-generating customers to the electric grid than any other utility company in California. Under California's Renewable Portfolio Standard Program, PG&E's goal is to supply 20 percent of our customers' electrical needs with qualifying renewable resources by 2010.

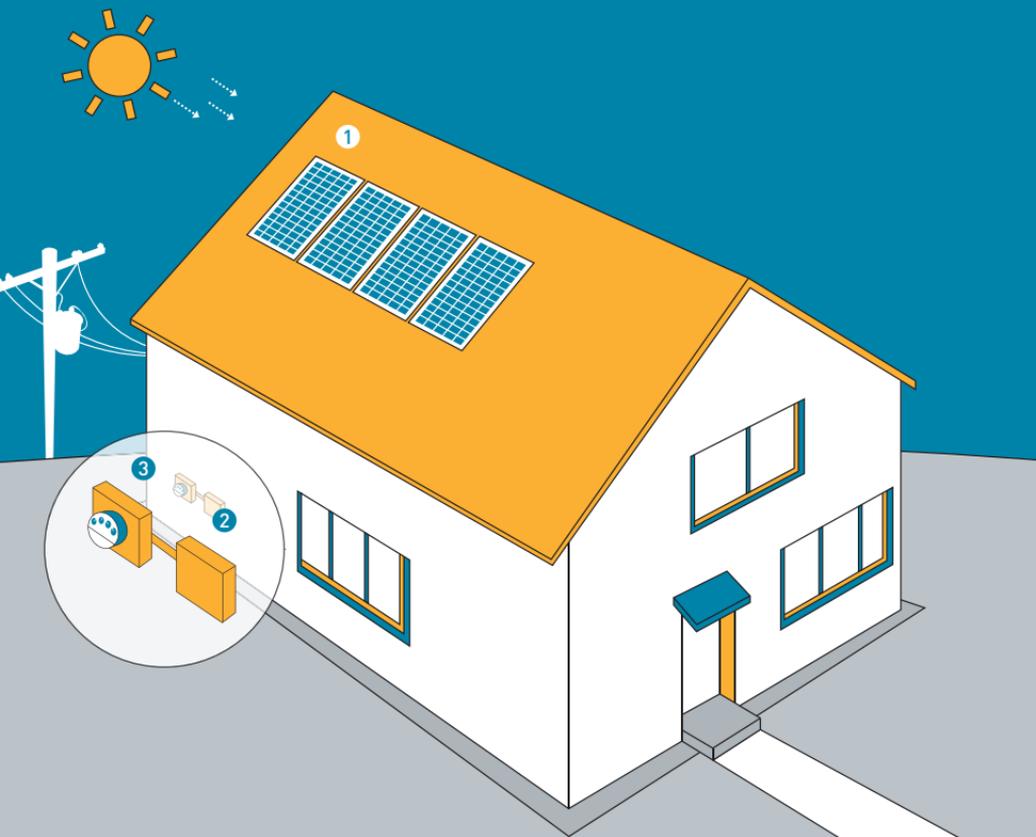


# What is the California Solar Initiative?

- ▶ California has set a goal to create 3,000 megawatts of new, solar-produced electricity by 2017, moving the state toward a cleaner energy future and helping to lower the cost of the solar installation for our customers.

The California Public Utilities Commission created the California Solar Initiative program to provide an incentive to homeowners, businesses and nonprofit agencies based upon their solar system's actual or expected performance. Pacific Gas and Electric Company, Southern California Edison, and California Center for Sustainable Energy administer the incentive.

An incentive from the California Solar Initiative reduces the cost of installing solar panels for all PG&E electric customers who want to generate their own solar energy to start saving money and the environment.



- 1 Individual photovoltaic (PV) cells are connected to panels. Solar panels convert sunlight into direct current (DC) electricity.
- 2 The inverter converts DC into alternating current (AC) for electricity in the home.
- 3 The net energy meter records the amount of energy generated through the PV system. When you generate more electricity than you're using, your net energy meter will spin backwards and the excess electricity is sent to the electric grid. Your account is credited for this excess, which helps to offset the cost of your electricity usage at times when your system is not producing energy (for example, at night).

# Capturing Sunshine: How Solar Energy Works

- ▶ Solar energy is simply turning sunshine into electricity. The process begins with solar photovoltaic cells (PV) that capture the sun's rays and convert them into raw electricity called direct current (DC). DC is then modified into alternating current (AC) through a device called an inverter. AC electricity flows through every outlet of your home, powering everything from lamps to televisions. Now that you understand how a solar installation works, it's time to make solar energy work for you.

# Getting Started

- ▶ Going solar is a relatively easy process and typically your solar installer handles most of the work. Following these basic steps will show you how to make the transition to solar.

## Step One

# Complete a Quick, Free Energy Audit

- ▶ An energy-efficient home maximizes the value of your solar installation – saving you even more money – so the first step is to complete a basic, energy efficiency audit. PG&E provides a free energy efficiency audit to help you assess your current home energy usage as well as identify those areas in your home that could become more energy efficient. The energy efficiency audit is a requirement of the California Solar Initiative and can be completed in one of three different ways: over the phone at 1-800-933-9555, by requesting a paper copy also at 1-800-933-9555 or online at [www.pge.com/solar](http://www.pge.com/solar) by clicking on “Installing Solar at Your Home.”

## Step Two

# Contact and Choose an Installer

- ▶ Qualified contractors are your key to getting the most productive PV system for your home. Contact an independent solar installation expert to determine the solar installation that best meets your energy needs and budget. Visit [www.gosolarcalifornia.ca.gov/retailers](http://www.gosolarcalifornia.ca.gov/retailers) for a list of licensed solar installers. Choose a reputable solar installer by interviewing at least three potential solar installers and obtain their bids before making your selection.

### Step Three

## The Solar Installer Handles the Applications

- ▶ Your incentive is based on the expected performance of your solar installation, so documentation about your location, solar system positioning and equipment specification is required. In most cases, your solar installer will handle all of the paperwork by completing and submitting all the relevant forms to PG&E and local city agencies for you. Review the downloadable California Solar Initiative Program Handbook at [www.pge.com/csi](http://www.pge.com/csi) for a list of the paperwork required and the program application.

#### Step Four

## The Solar Installer Handles the Building and PG&E Inspections

- ▶ Your solar installer will schedule an appointment with your local building permit agency to have a certified building inspector approve the solar installation. Your solar installer will send the building inspector's final approval to PG&E. Following an on-site inspection and net energy meter installation by PG&E engineers, your new solar installation will be connected to the electric grid and clean, renewable solar energy will be powering your home or being sent to the grid.

## Step Five

# Claim Your Incentive and Tax Credit

- ▶ PG&E and the California Solar Initiative will reward you for choosing to go solar by providing you with an incentive from your completed application. The incentive will be disbursed to your designated party. And, in addition to an incentive from the California Solar Initiative, you may be eligible for a federal tax credit. To find out if you qualify, visit the Tax Incentives Assistance Project at [www.energytaxincentives.org/consumers/solar.php](http://www.energytaxincentives.org/consumers/solar.php)

# Know Your Role in the Solar Process

## Customer

- ▶ Completes a quick, free energy efficiency audit to determine energy-saving measures that will optimize your solar system's performance
  - ▶ Interviews at least three reputable solar installers and secures their project bids before choosing one
  - ▶ Receives an incentive (if designated party) and investigates available federal tax credit once your solar installation is completed
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## Solar Installer

- ▶ Submits all applications and building permit requests to PG&E and your local city agencies
  - ▶ Installs your PV system and contacts the city building inspector for an on-site visit once the installation is completed
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## PG&E

- ▶ Reviews and processes your California Solar Initiative application
- ▶ After your solar installation is completed, inspects your property and installs a net energy meter to connect your home to the electric grid
- ▶ Sends the incentive payment to the designated party once the solar installation is completed



# Going Solar

- ▶ Powering your home with solar energy is your opportunity to make a difference in the fight against global climate change. By installing solar at your home, you are demonstrating your dedication toward a healthy environment and making a sound financial investment. At PG&E, we are committed to planning for the future by working with our customers and our communities to harness the power of the sun. PG&E is your resource for the information you need to go solar and we are here to support you throughout the process.

# Contact Us

- ▶ You may contact us by

phone [1-800-933-9555](tel:1-800-933-9555)

online [www.pge.com/solar](http://www.pge.com/solar)

email [solar@pge.com](mailto:solar@pge.com)

# Helpful Solar Resources

- ▶ PG&E is your resource for useful solar information, visit [www.pge.com/solar](http://www.pge.com/solar)

For updates on the California Solar Initiative program in the PG&E area, visit [www.pge.com/csi](http://www.pge.com/csi)

For more information about the California Solar Initiative, visit [www.gosolarcalifornia.ca.gov](http://www.gosolarcalifornia.ca.gov)

To find a list of solar installers in your area, visit [www.gosolarcalifornia.ca.gov/retailers](http://www.gosolarcalifornia.ca.gov/retailers)

For more information on solar contractor's license requirements or to find a licensed solar contractor, visit the Contractors State License Board website at [www.cslb.ca.gov](http://www.cslb.ca.gov)

For more detailed information about the California Solar Initiative process, visit the California Public Utilities Commission's website at [www.cpuc.ca.gov/PUC/energy/solar](http://www.cpuc.ca.gov/PUC/energy/solar)

For solar industry information, visit the Solar Energy Industries Association's websites at [www.seia.org](http://www.seia.org) (national) or [www.calseia.org](http://www.calseia.org) (state)

For more information about the Tax Incentives Assistance Project, visit [www.energytaxincentives.org/consumers/solar.php](http://www.energytaxincentives.org/consumers/solar.php)



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