

Going Solar

Working toward a clean energy future

Hawaii's abundant sunlight can be harnessed to reduce our state's dependence on imported oil, protect our environment, and help consumers become more energy efficient.

Solar energy is a clean and renewable resource that can be used to heat water or produce electricity for your home with the installation of a solar water heater or photovoltaic (PV) system. If you are considering solar energy, include these important steps in your plans:

1. Install a solar water heater first

Heating water is one of the biggest uses of electricity in many households. Installing a solar water heating system is a smart first step that could reduce your monthly electric usage by up to one-third. A rebate from Hawaii Energy in addition to state and federal tax credits can help offset much of the installation cost. Visit Hawaii Energy's website, www.hawaiienergy.com, for a list of contractors who participate in the solar water heater rebate program. If you find that your home is not well suited for a solar water heater, consider upgrading to a more efficient conventional water heater or an electric heat pump.

2. Conserve and use energy more efficiently

A PV system is a substantial investment so it is important to reduce your household's electrical consumption as much as possible with energy-efficient appliances and other energy-saving improvements. This will reduce the size and cost of the PV system you need.

- Do you still have one or more old refrigerators that could be removed or replaced with an Energy Star® rated model?
- Are you using energy-efficient light fixtures and CFL or LED bulbs where possible?
- Instead of using an air conditioner, do you cool your home with shade from trees, a solar attic fan, window awnings, or solar curtains?



Hawaiian Electric Company

3. Choose a solar contractor wisely

- Look for an experienced solar contractor with an electrical contractor's license. Hawaii Energy's website, www.hawaiienergy.com, lists solar water heater contractors who participate in the rebate program. For PV contractors, check with others who have installed PV systems. Ask contractors for references of other installations they've completed or visit PV open houses.
- Collect bids from several contractors. Compare the generation capacity of each system and the estimated amount of energy it will produce annually based on sunlight conditions in your area.
- Request product specification sheets and information on warranties. Visit nem.heco.com for details on approved inverters and modules.
- Find out how the solar panels will be attached to the roof and ask how it might affect your roof warranty.
- Once you've selected a contractor, make sure the work contract specifies the manufacturer, model, and size of the solar panels and inverters.
- Make sure the contractor completes and submits the paperwork required to interconnect your PV system to the utility grid, to apply for Net Energy Metering or Feed-In Tariff, and to obtain the rebate for solar water heaters. Submitting paperwork in a timely manner is important to manage billing and interconnection.
- Make sure the contractor obtains all applicable permits from the City & County of Honolulu. Solar water heating and PV systems must be inspected and approved (closed permit application) by county building inspectors to ensure that all work complies with applicable building and electrical codes and that the system is safe for operation.
- Determine with the contractor the date when the installation is to be completed and who is responsible for clean up. Outline how much work is to be done by each progress payment and when final payment is expected. Consider withholding final payment until all county permits have been closed.
- Ask the contractor to demonstrate how the system is operated and to provide written instructions.
- Verify that a lockable utility disconnect is labeled and installed within close proximity of the meter.

FAQs

What if my PV system produces more electricity than I use?

Whether you simply reduce the amount of power you purchase from the utility or export excess power to the grid, the Public Utilities Commission requires Hawaii households and businesses that install a grid-connected PV system to submit to Hawaiian Electric a Net Energy Metering (NEM), Feed-In Tariff (FIT), or Standard Interconnection Agreement.

PV systems with a capacity up to 100 kW can enroll in Hawaiian Electric's NEM Program. You will receive full retail credit for the energy you export to the grid and will be billed only for the net amount used and the minimum fixed fee to service the account. Depending on your power requirements, monthly demand charges may apply and should be considered in assessing your future billing. An executed NEM agreement is required to receive credit. For details visit nem.heco.com.

The Feed-in Tariff program offers pre-established rates and standardized contract terms to provide an easy way for individuals, small businesses, government entities, or others to sell renewable energy to their utility. For details visit www.heco.com/fit.

Are there tax credits or rebates?

Please check with your tax consultant to determine if you qualify to receive federal or state tax credits.

- A 30% federal tax credit is available to eligible solar energy (including solar water heating and solar PV systems) and other renewable energy systems placed into service before December 31, 2016. Visit the Database of State Incentives for Renewables & Efficiency, www.dsireusa.org, for detailed information.
- The Hawaii state tax credit for PV system installations is 35%, up to \$5,000, on a single family residential property. Solar water heater installations on single family homes also qualify for a 35% tax credit, up to \$2,250. Visit the Hawaii Department of Taxation site, www.hawaii.gov/tax, to download the N-342 form and instructions to see if you qualify for a state renewable energy tax credit.
- Hawaii Energy currently offers a \$750 rebate on solar water heater systems. Visit www.hawaiienergy.com for the latest information.