



ROOFTOP SOLAR • IS IT RIGHT FOR MY HOME?

Many home owners are considering whether or not rooftop solar is right for them. This guide serves as a starting point for public power community customers when considering rooftop solar.

Know Your Home

- Recognize that purchasing solar panels has a significant upfront cost and has ongoing maintenance obligations.
- Understand how much electricity your home uses by reviewing your monthly and annual kWh usage. This will help you determine the amount of solar you need.
- The more energy efficient your home, the less solar panels you will need to power it. Generally speaking, making energy-efficiency upgrades to your home will have a quicker rate of return than installing solar panels.
- Understand the condition of your roof and when you anticipate the need to replace it. Is your roof under warranty and if so, will the installation of solar panels affect the warranty?
- For best results, solar panels should be oriented toward the south, free from obstructions. Does your roof allow for this orientation? Is your roof shaded by nearby structures or trees?
- If applicable, does your condominium or homeowners association have limitations on installing solar?

Do Your Homework and Ask Key Questions

- Consult with your public power utility regarding rooftop solar options, necessary building and/or electrical permits, registration(s), utility metering and interconnection requirements.
- Consider whether your roof will need to be replaced during the term of the solar contract. If so, how will this impact the panels?
- What will be the impact on your homeowners insurance?
- Research solar installers via the [Better Business Bureau](#).

Finance

- Understand the costs and risks involved with owning the solar array vs. leasing vs. financing.
- How is the financing structured (length and interest rates)?
- Are there local, state or federal incentives or tax credits available? If so, how are they accessed?
- What is the anticipated return on investment and what are the associated assumptions?
- Are there any production guarantees associated with the system?
- What happens with the equipment, contract and warranties if you sell your home?

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Understand the Equipment and Installation Process

Below are some questions to ask yourself and the companies you are interviewing:

- What is the warranty on the panels and inverters?
- Who fulfills warranty claims and is there an additional cost?
- Solar system questions:
 - What are the proposed system specifications and design layout?
 - How much of your electricity used will be from the solar panels? How will it affect your electric bill?
 - What happens if the solar panels don't produce as much power as promised? Are there performance guarantees?
 - Inquire with your vendor about the highest efficiency tilt for your panels or installing tracking arrays to enable the panels to follow the sun as it moves. How does this change the economics?
 - Does your electrical panel need to be upgraded? Will you need a new or an additional electric meter? If so, are those costs included in the quote?
 - Will the system be installed by a licensed electrician?
- While most solar systems operate automatically and stay clean with enough rain, you may want to schedule an annual inspection to ensure optimal performance. Is this service included in the agreement?
- Does the system include batteries to provide backup power in the event of a power outage? How long will the batteries provide power? Research and understand the battery manufacturer, technology, integration with your solar panels and in-home electrical panel. What is the battery warranty? How does adding a battery impact the economics?
- Who will contact the local utility to obtain necessary permits and registrations?

Your Public Power Utility

- Remember to keep your public power utility involved.
- Your public power utility is best equipped to provide guidance regarding rooftop solar considerations.
- Public power utilities are committed to their customer-owners and long-term community goals.
- Public power utilities are local, responsive, accessible and committed to serving you.

Additional Resources



A personalized solar savings estimator, powered by Google Earth imagery. Simply search your home to discover your solar savings potential! Click [here](#) to start.

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OPTIONS FOR FINANCING

Purchasing or Solar Loans

- Purchasing solar upfront can be expensive but provide the highest return on investment (ROI).
- Solar loans can be taken from a lender such as a bank, governmental agency or solar developer.
- Loan terms, such as length and interest rate, are negotiable.
- Solar purchases typically qualify for a home equity loan.
- Whether purchasing outright or obtaining a loan, the solar array is owned by the homeowner and the homeowner is typically responsible for maintenance and negotiating warranties.

Lease or Purchase Agreement

- A solar lease involves a developer installing a solar array and the homeowner using the power produced in exchange for a series of scheduled payments.
- Power purchase agreements (PPAs), are similar to leases, but the homeowner buys the power at a fixed rate for each kWh.
- In lease and PPA scenarios, the homeowner does not own the solar array, therefore the developer is typically responsible for upkeep.
- PPAs and leases are not available in all states and regions.

| | Purchase | Solar Loan | Solar Lease | Power Purchase Agreement |
|----------------------------|---|---|--|---|
| Upfront Costs | Typically between \$15-\$30K (Approx. \$2.81/Watt for a 10-kW system) | Loan closing fee | Initial down payment | Initial down payment |
| Monthly Costs | None | Monthly loan payments | Monthly lease payments | Monthly energy payments |
| Maintenance and Insurance | Homeowner is responsible | Homeowner is responsible | Third-party is responsible | Third-party is responsible |
| Tax Rebates | Homeowner qualifies | Typically, homeowner qualifies | Third-party owner qualifies | Third-party owner qualifies |
| Transfer of Home Ownership | No limitations, seller can choose to sell with the home or remove upon transfer | Depends on loan terms; typically it is handled as a home equity loan and paid off as part of the sale | Buyer must accept and qualify for contract, otherwise seller must buy out contract | Buyer must assume the remaining PPA payments, or seller must buy out contract |

For more information on solar financing visit:

Solar Financing: Choosing The Right Option | EnergySage www.energysage.com/solar/financing/

Homeowners Guide to Solar Financing | Let's Go Solar www.letsgosolar.com/solar-panels/financing/