



Introduction to Rooftop Solar

FACT SHEET

February 2024

Thanks to the rapidly declining cost of solar panels and several incentives, a solar, or photovoltaic (PV) system can be a good financial investment for homeowners. Here are some factors to consider before going solar:

How many panels do I need?

The size and cost of your system largely depends on your annual electricity usage and your property's sun exposure. Comparing as many solar options as possible can help you avoid paying inflated prices for your system. We recommend getting at least three quotes.

Most solar companies will offer a free off-site quote, where they request your annual electricity usage and look up your property's solar exposure to give you an estimate without a physical site visit. You can also check out [Project Sunroof](#) or [PV Watts](#).

If you use less energy, you'll need fewer solar panels to account for your electric load. Make sure you're not

using more energy than you need by investing in energy-saving equipment and weatherizing your home. Check with your utility company to see what energy efficiency programs they offer. You may already be paying for such programs on your bill, so you should take advantage of them. Here are more ways to cut your energy use and lower your solar project cost:

- [Illinois Home Weatherization Assistance Program](#) (income-qualified)
- [Federal Equipment Tax Credits for Primary Residences](#)
- [Illinois Energy Efficiency Loan Program](#)
- [The Department of Energy's Guide to Do-It-Yourself Energy Audits](#)
- [CUB Blog on the Inflation Reduction Act Benefits for Illinois Consumers](#)
- [CUB Heat Pumps Factsheet](#)

MAKING SOLAR MORE AFFORDABLE IN 3 WAYS

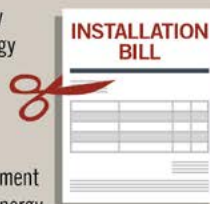


STATE OF ILLINOIS SREC PAYMENTS

The state of Illinois will buy the "Solar Renewable Energy Credits," or SRECs, your system produces.

For residential solar, this incentive is an upfront payment determined by how much energy your system is expected to produce over 15 years. It can cover up to 30% of the installation cost.

Ask your solar installer how much this incentive will cover and how you'll receive the credit. Ideally, the credit would simply be deducted from your installation bill.



FEDERAL TAX CREDIT

This tax credit, which lets you deduct 30% of your solar project costs from your federal taxes, is in place through 2032.

If 30% of your project costs amount to more than you paid in federal taxes in a single year, the credit will roll over for up to the next 5 years.

Note: You must pay federal taxes to benefit.

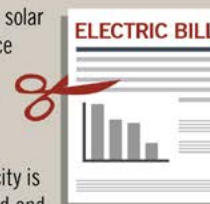


NET METERING

On bright days your solar panels often produce more energy than your home is using at that moment.

That excess electricity is sent back to the grid and you'll receive bill credits in a process called "net metering."

These credits help cover your electricity costs when your panels are not generating power. They also roll over month-to-month and help reduce your bill during less sunny winter months.



IMPORTANT: You only receive the SREC and federal tax credit if you purchase your system. These credits are not available to people who lease solar systems.

Designed by
Citizens Utility Board



Is my roof ready for solar?

If you want to install solar panels on your roof, you'll need to consider a number of factors, which an installer should assess during an on-site (and possibly paid) evaluation. Your solar installer will walk you through it, but here are a few things to consider:

1. **How much of your roof is shaded?** Check out an aerial view of your home on Google Maps. If you can't see the majority of your roof, you may not get enough sunlight to justify the costs of installing your own system.
2. **How old is your roof?** Replacing your roof after installing a solar panel system creates additional costs, and most solar panels are warranted for 25 years, so if your roof is asphalt singled and over 10 years old, consider roof replacement prior to installing solar panels.
3. **Can the size, shape and slope of your roof support solar panels?** A south facing roof is most ideal for solar panels. East and west facing roofs are okay too, but would require 10-20% more panels than a south facing system, in order to produce the same output. North facing roofs are not ideal, unless the roof is a very low pitch (5-10 degrees).
4. **What type of material is your roof?** Asphalt, tile and metal roofs tend to be an easier surface for installing solar panels. Slate and wood roofs make for more expensive installations.
5. **Can you install panels somewhere other than your roof?** If you have open land that gets a lot of sun, a ground mount system could be a good alternative to installing a system on your house.

How will I pay for it?

There are several incentive programs to make solar more affordable:

The Federal Solar Investment Tax Credit: This tax credit deducts a percentage of your solar project costs from your federal income taxes, and now includes credits for system batteries. The credit is 30 percent for the next 10 years, starting Jan 1, 2022. You must own your panels to receive the tax credit. The system must be installed before the end of the year, and you must pay federal taxes to benefit. The Inflation Reduction Act did create a direct-pay option, but it only applies to non-taxable entities (not individuals). If the credit amounts to more than you paid in federal taxes in a single year, it can roll over for up to five years. Learn more about the residential energy credit (Form 5695) on the [IRS website](#) or on the [Solar Energy Industries Association](#) website.

On-bill Credits from your Electric Utility: Once you have installed your system, it's likely you will not always

use 100 percent of the electricity it produces in real time. If your system is connected to your utility's grid, excess electricity is sent back to the grid and you'll receive bill credits for that electricity in a process called "net metering." These credits help maximize your monthly bill savings and ensure you're credited for every kilowatt-hour (kWh) your system produces, which pays off the remaining cost of your system over time. Net metering also helps cover the cost of the electricity your household uses when your panels are not generating energy, like cloudy days or nighttime. Net metering credits are automatically applied to your utility bill—you will not receive direct payments from your utility company.

Your solar installer will usually take care of the net metering application on your behalf. Ameren, ComEd and MidAmerican are required by state law to offer net metering. These utilities allow unused net metering credits to rollover each month, but they "expire" every year (either April 30th or October 30th, depending on your choice and consumption patterns). If you have a municipal electric utility or cooperative, check their policy.

"Retail" net metering refers to when the customer receives net metering credits on all parts of their bill, including the supply, delivery and taxes and fees sections. For Illinois consumers who have solar panels installed before 2025, this full benefit will continue. But beginning in 2025, state law will allow Ameren, ComEd and MidAmerican to restrict net metering applications so that new solar customers only receive credits on the supply portion of their bill.

Note: Alternate suppliers are required to offer net metering and to provide net metering credits at the same rate they are charging you for electricity. Alternate suppliers are also required to have contact information specifically for net metering concerns. While they are required to comply, alternate suppliers do not always meet these requirements. It can often be simpler to cancel with an alternate supplier and participate in net metering with your utility company. The utility companies have larger net metering departments than the suppliers, making it easier for them to address your net metering questions.

Ameren and ComEd: Net metering customers will no longer lose banked credits (that have rolled over from a

Did you know...

Homeowners who get 3 or more quotes from installers save at least 10%.

Source: U.S. Dept. of Energy's National Renewable Energy Laboratory (NREL)

previous month) when switching suppliers.

Leases and Power Purchase Agreements: Many solar companies advertise leases or Power Purchase Agreements (PPAs) at no upfront cost, where the company pockets the owner incentives, signs the customer up for a long-term contract and may increase the rate over time through contract escalator provisions. With a lease, the customer is charged a fixed amount, usually monthly. With a PPA, the customer is charged for the energy that the panels on their property send to the grid each month. Both arrangements typically allow the customer to buy the system at some point in the contract term, but it depends on the contract, and that's after the solar company has exhausted the federal and/or state incentives.

Illinois Solar for All: Income qualified customers can get rooftop solar panels at no upfront cost and a guaranteed discount through a state solar incentive program called Illinois Solar for All. Most vendors through Illinois Solar for All require customers to sign up for PPAs, but with the guarantee that they will only ever have to pay for half of what their panels produce. So that means that under Illinois Solar for All, if the panels on your roof produced 800 kWh in a month, you would get utility bill credits for those 800 kWh, but would only have to pay your solar company for 400 kWh.

Eligible participants must meet income eligibility requirements which can be found at the [Solar For All website](#). For 2-4 unit residential properties, at least two households must qualify based on income, and for 5+ unit residential properties, at least half of the households must qualify.

Solar Financing: There are many financial resources available to help you pay for your solar investment. Two common types of loans are: bridge loans (covers the period between installing a system and receiving your incentives) and solar loans (offered by banks, credit unions and solar panel manufacturers). Check out [A Homeowner's Guide to Solar Financing](#) from the Clean Energy States Alliance and [Solar Financing FAQ](#) from EnergySage.

Solar Renewable Energy Credits: A Solar Renewable Energy Credit, or SREC, is a unit that represents the environmental value of solar power. For every 1,000 kilowatt-hours that your PV system produces, one Solar Renewable Energy Credit is created, which the owner of the PV system can sell to utilities or other companies to help pay for the cost of the system. Your solar installer can provide more information on how to sell your SRECs and will help you determine how much of your project you can expect this incentive to cover.

Battery Storage: Until battery technology gets more

affordable and efficient, using solar panels to completely disconnect from the utility's distribution grid won't be practical for most households. While it is possible to use batteries to store that excess electricity (instead of sending it back to the grid), integrating battery storage is typically not worth the additional cost. If you choose to keep your solar system entirely "off-grid" — meaning it's not connected to the power grid — you also wouldn't be eligible for state solar incentives or net metering.

How do I find solar installers?

If you think rooftop solar would be a good fit for you, contact solar installers in your area to get quotes for your project. Find residential solar installers near you by visiting the [Illinois Solar Energy Association website](#).

If I have solar panels, can I participate in "real-time pricing" and other pricing programs?

Rooftop solar owners can participate in real-time pricing programs (ComEd's Hourly Pricing and Ameren's Power Smart Pricing). But they cannot participate in the following programs: ComEd's Peak Time Savings, ComEd's Time-of-Day Pricing or Ameren's Peak Time Rewards. Read below for important information.

What should solar panel owners know about real-time pricing?

While most electric customers get charged at a standard rate that changes only a few times a year, ComEd's Hourly Pricing and Ameren's Power Smart Pricing programs charge participants at a rate that can change hourly. This has been a money-saving program for many customers, but here's what solar panel owners should know about real-time pricing:

- Real-time pricing is only recommended if you own your panels. If you are on a solar lease or Power Purchase Agreement, you will be charged a different rate than what you received in net metering credits on your utility bill.
- Always research how each utility handles net metering credits for solar panel owners:
 - For ComEd Hourly Pricing participants, excess net metering credits do not expire annually as is the case for net metering customers on the fixed-price rate.
 - For Ameren Power Smart Pricing participants with net metering, excess credits will continue to expire annually, just as they do on the fixed-price rate.
 - When switching from a fixed-price rate to ComEd's Hourly Pricing program, the net

metering credit applied to your bill switches from a kilowatt-hour credit to a monetary credit (If a net metering customer decides to switch back to a fixed rate, their accumulated credits remain as monetary credit on future bills.)

- For Ameren customers, any switch from a fixed-price rate to Power Smart Pricing will result in a loss of all stored credits. Ameren customers: any switch from a fixed-price rate to Power Smart Pricing will result in a loss of all stored credits.

Can going solar affect my homeowners insurance?

Most insurance policies cover solar panels, but you should check with your agent to see if you will need additional coverage.

Can going solar affect my property tax?

Installing solar panels will increase your home value, but the resulting increase will not be taxed in Illinois. Make sure to check your property tax bill. If your assessment increased after installing solar, contact your local assessor office who is listed on your tax bill. Your assessor may request a completed [State of Illinois PTAX-330 property tax form](#).

What do I need to know when signing an SREC contract?

SRECs cover some of the cost of going solar. Solar customers typically receive their SREC checks within 12 months of the date the system is completed. What do consumers need to know about their SREC contract?

- **How is my SREC calculated?** The Illinois solar program is set up for utilities to buy SRECs on a 15 year timescale. Your approved vendor will make an estimate of your solar production over the first 15 years, that number will be rounded down to the nearest whole REC and multiplied by the current REC price for the program.
- **Do I apply for my SREC, or does someone do it on my behalf?** Your Approved Vendor will apply for the SREC incentive on your behalf. Typically the Approved Vendor is a third party that your installer works with, sometimes, installers process applications in house. The approved vendor will often take a cut of the incentive as a processing fee, which is usually around 10%.
- **What are the collateral requirements?** The Illinois Adjustable Block Program requires that the utilities collect 5% of the SREC payment as collateral in case your system does not deliver the contracted number of RECs. This 5% collateral needs to be maintained and replenished if there are shortfalls in production. If your system delivers the contracted number of RECs by the end of the 15 year contract term, you will receive a check equal to the 5%

collateral at that time.

- **What happens if my system doesn't produce the estimated number of SRECs?** If your system does not deliver the contracted number of RECs you will be required to pay back the utility company (through your Approved Vendor) for the RECs not delivered. It is unlikely you will ever have to pay a significant amount of money back to the utility company.
- **What if I'm in a muni or coop?** You can still participate in the Adjustable Block Program and receive SRECs even if you are a municipal utility or co-op customer. This is relevant to anyone who is not a customer of ComEd, Ameren, or Mid-American.

Complaints

Solar energy can save you money, but there are some companies that may try to take advantage of solar's popularity to sign you up for a bad deal, or misrepresent information about state programs.

We do our best at CUB to provide transparent information to consumers, but CUB does not administer either of the state solar programs. If you have questions or concerns about solar, including an advertisement you might have seen or someone who came to your door, you can call the CUB Hotline: 1-800-669-5556. You can find complaints regarding solar installers at the Better Business Bureau as well as the Illinois Shines Consumer Complaint Database. If you believe you have been subject to fraudulent or deceptive sales practices, the Consumer Protection Division of the Illinois Attorney General's office may be able to help. Customers can contact the following hotlines:

Chicago: 1-800-386-5468 (TTY 1-800-964-3013)

Springfield: 1-800-243-0618 (TTY 1-877-844-5461)

Carbondale: 1-800-243-0607 (TTY 1-877-675-9339)

Spanish: 1-866-310-8398

How do I learn more?

Check out the Department of Energy's [Homeowner's Guide to Going Solar](#) and the Solar Energy Industries Association's [Residential Consumer Guide to Solar Power](#).