

Ecohouse Solar - Frequently Asked Questions

Will solar power work on my Central Ohio home or business?

YES! The two biggest factors are the amount of sunlight and the amount of appropriate roof space. Ecohouse Solar will give you a quick assessment by looking at satellite imagery of your property. If it looks like a good candidate, we will schedule a free solar consultation where we evaluate if solar will fit with your architecture and can meet your energy needs. Ecohouse Solar will provide a detailed design and proposal including recommended system location, size, pricing and 25-year financial analysis.

What does a typical residential solar electric system cost?

The average cost currently for a residential system in Central Ohio is \$15,000-\$25,000 before the 30% tax credit, and \$10,000-\$18,000 after the tax credit. Generally, the cost per watt decreases as the systems increase in size. Adding battery backup significantly adds to the cost of the system, although adding batteries is not necessary.

How much will I save?

With solar, you are buying the source of your electricity and locking in the price for 30+ years. The amount you save will depend on the size of the solar system and the rate you are paying for electricity. The savings will increase each year as utility rates rise. Homeowners typically save \$1,000-\$3,000 per year.

What incentives are available?

Ohioans can take advantage of a 30% Federal income tax credit until the end of 2019. This tax credit then reduces to 26% for one year and then 22% for the last year. If you own a rural business, you are also eligible for a REAP grant through the USDA for an additional 25% of the system cost.

Does solar make financial sense?

Yes! Solar is cleaner and less expensive than power from the utility company. Solar is a smart financial investment because you will save money on electric costs for 30+ years and increase the value of your property. Our customers typically see an annual internal rate of return of 15% and expect to recoup their solar system investment costs within 6-8 years for commercial installations and 9-10 years for a residential installation.

Do you have financing available?

Yes. Ecohouse Solar can help you obtain a low-interest loan using the State of Ohio "Eco-Link" program, or traditional financing, so you can experience the benefits of solar power immediately — and lock in a lower energy cost.

How does solar work?

Photovoltaic (PV) cells in solar panels convert sunlight into direct current (DC) electricity. The DC power is then changed to alternating current (AC) power by an inverter, so that the electricity is compatible for your home or office. Any excess solar power is exported to the electric grid.

What happens at night or when it's cloudy?

The amount of electricity your solar power system generates is directly related to the amount of sunlight it receives. It will produce less electricity when the weather is cloudy, and nothing at night or if the panels are covered with snow. Your solar power system will be interconnected to your local utility grid, so that you will automatically begin to draw power from the grid whenever you need it. Switching between solar and the utility grid happens seamlessly.

What are the environmental benefits of solar?

With solar, you are generating electricity using the sun, which is always available for free. Solar electricity is clean and carbon free, since no fossil fuels are being burned. Solar power replaces electricity from your electric utility which usually comes from coal or natural gas fired power plants in Ohio. Over the life of a solar system, you are significantly reducing your carbon footprint.

How will solar power affect my utility bill?

When you begin generating solar power, your utility bill will drop significantly. When your solar electric system generates more electricity than your building can immediately use, the excess power flows back to the electric grid and the electric utility gives you credit for this. This is known as "Net Metering."

Will I need to adapt my house or business to run on solar power?

A solar power system will fit seamlessly into your home or office. You normally won't have to change anything. The main difference is that your utility bill will be lower and you will be generating your own clean electricity using sunshine.

What size solar system do I need?

The size of your solar electric system will depend on your energy needs, roof space and solar goals. Ecohouse Solar will custom design a solar power system to meet your specific needs and offset as much of your utility bill as you desire - up to 100%. Residential solar power systems are typically 6-10 kilowatts (kW) and commercial systems range from 10-100 kW for a small to medium-sized business.

What maintenance is required?

Your solar energy system requires very little maintenance, largely because it has no moving parts. All your system requires is sunshine with as little shade as possible, and occasional inspection. We suggest that you trim trees that may shade your solar system.

What happens if there is an electric grid blackout?

In the event of a grid disruption, your solar system is designed to turn off. This is a safety requirement. In order to maintain power during a utility outage requires either a generator or battery backup. Ecohouse Solar can install a battery backup or generator for you.

Do I need battery backup?

Nearly all Ecohouse Solar energy systems are connected to the electric utility grid so you always have access to a power source, as long as the grid is operating. A battery will provide backup power

if the grid goes down. If you install a battery at the same time you install a solar electric system, this will qualify for the 30% solar Federal tax credit.

How reliable is solar power?

Solar systems are very reliable. They have proven to be dependable sources of clean energy for homes and business for the last 50 years. Solar technology is now used widely around the world. Ecohouse Solar has high quality standards—we build our systems to last for 30 years or more. You will receive a 25-year production warranty with the solar panels, and Ecohouse provides a 10-year workmanship warranty.

Should I wait for new technology?

Now is really the best time to invest in a solar system given the combination of low solar equipment costs and the available 30% Federal tax credit. Delaying your decision to go solar delays your savings and the associated environmental benefits.

Is it difficult to switch to solar power?

Ecohouse Solar makes it very easy to switch to solar. We take care of design, engineering, permitting, utility interconnection, installation and inspections, so that you can start saving money and using clean energy as soon as possible.

How long will it take to get my solar system up and running?

The permitting process may take 3-6 weeks prior to the installation. A typical residential solar installation takes about 2-4 days, and a typical commercial installation takes 1-2 weeks from the day we begin the installation.

What about permits to meet local building codes?

As part of our comprehensive service, Ecohouse Solar will obtain the required building and electrical permits and design your system to meet the local building codes and National Electric Code. We'll schedule and be there for the required inspections. Ecohouse Solar takes care of your project every step of the way.

What is the ideal orientation and angle for solar panels?

In Ohio, it's best to have the solar panels face South. They are still effective at East or West orientations, but they start to lose energy production if the orientation varies from South. The ideal angle is 30 degrees, however, this is far less important than the orientation. We can install solar panels on your roof or on a ground-mounted structure.

What if my roof needs to be replaced after I've installed the solar panels?

Ideally, you should install solar panels on a roof that is in good condition. When an Ecohouse Solar representative comes out to inspect your building prior to installation, he or she will check to make sure that your roof is suitable for a solar installation. Should you need to replace your roofing, the solar panels will need to be removed and re-installed. Ecohouse Solar offers this service for a reasonable fee.