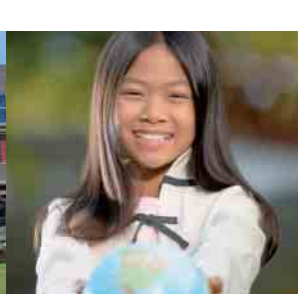


Why Go Solar?

Frequently Asked Questions about Solar Energy for Homeowners



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Why should I go solar?

It benefits you, it benefits the environment, and it builds a sustainable future.

Renewable energy is in the news. Global warming, rising energy bills, and energy dependence affect all of us. More and more people want to become part of the solution.

Solar energy is one of the best ways to make a real contribution

to sustainability. More and more areas offer subsidies and rebate programs that make solar the smart choice – financially as well as environmentally. But solar is still new for a lot of people. To change that, we're offering some answers to questions we've often heard in our many years as a major solar innovator. We hope that by answering these FAQs, we can encourage more people to go solar.



Solar Basics



The sun's
always
on.

Q: What is solar energy?

A: A solar energy system creates usable power from sunshine. There are two basic kinds of systems:

Photovoltaic or PV solar uses sunlight to generate electricity. It's the same technology found on pocket calculators, just on a larger scale. PV systems can be designed to generate the majority of the electricity used in your home, or just a portion of it.

Thermal solar uses sunlight to heat water. Typically this is used for a home's hot-water supply. A well-designed thermal system can be extremely effective, and provide most of the hot water used in your home.

Schüco supplies both kinds of systems. Both let you do your part towards reducing greenhouse gases and improving the environment.

Q: Does solar work only on sunny days?

A: Solar systems work even when it's cloudy. Naturally, cloud cover reduces the amount of solar radiation reaching the panels, but the system will produce some electricity and/or heat on all but the most overcast days.



Solar Benefits

Q: How does solar help the environment?

A: Fossil fuels are a leading cause of global warming and air pollution. Solar energy reduces the amount of fossil fuel that is burned, thus reducing the pollutants and CO² that get into the atmosphere.

Schüco solar energy systems have the added benefits of very high efficiency, durability, and

service life – they're engineered for sustainability. This means fewer replacements and repairs, saving even more energy and precious resources.

Q: How does a solar energy system benefit me personally?

A: In many ways:

- It reduces your energy bill, and in many areas the utility will buy back any extra electricity you generate. Federal,

state, and utility financial incentives are also available in many areas.

- It adds to the value of your home.
- You gain energy independence.
- Perhaps most importantly, it's a good investment in a sustainable future for yourself and your loved ones.





We're
saving
energy.

Q: How can solar improve national security?

A: Currently, the US depends on fossil fuels, especially oil, from potentially unstable or unfriendly countries. These supplies are vulnerable to political upheaval, trade disputes, embargoes, and other disruptions.

In 1973 we imported only about 34% of our oil, and yet the 1973 oil embargo was a serious blow

to the economy. Today we import over 53%, and are more vulnerable every year. Solar energy can help reduce this dependency, making our economy, our nation, and your family more secure.

Q: How can solar help the economy?

A: Right now the US has to import oil and natural gas to cover our energy needs. The

cost adds up to many billions of dollars, and all of that money leaves the country. But solar energy is generated locally. The energy dollars stay at home, creating economic growth and benefiting your community.

We're
helping
the earth.



Solar Electricity

Q: How does solar electricity work?

A: This technology is called “photovoltaic” or PV. Sunlight hitting silicon cells in a module generates a DC current. This current goes to an inverter in the house, which turns it into household AC.

Grid-connected systems are linked to the regular electrical grid, and reduce the amount of

current the house draws from the power company. Off-grid PV systems are completely independent of the power company. They require extensive battery backup and are more complex to install and run.

Schüco specializes in grid-connected systems, since these are easier to use for most people.

Q: Will a solar PV system give me electricity if there’s a power outage?

A: That depends on the kind of system you have. PV systems with battery back-up will provide electricity if the power goes out.





Q: Can a PV system give a dangerous shock?

A: A properly installed solar panel cannot give you a shock, and our mounting system keeps wires safely bundled and out of the way. An improperly installed or damaged module can give a shock. However, Schüco certified installers work to the same electrical code as any qualified electrician, so there is minimal risk.



Our roof
makes
electricity.

Solar Hot Water

Q: How do solar thermal systems work?

A: Fluid running through a solar collector is heated by sunlight hitting the collector. This heated fluid circulates through a storage tank, where it transfers its heat to the water in the tank. The storage tank is part of the regular water supply and is installed upstream of the conventional water heater. The solar fluid never touches

the water. Schüco's unique third-generation system design handles this process very efficiently, for quieter operation, better output, peace of mind, and much less maintenance than conventional thermal systems.

Q: Will a solar thermal system give me hot water if there's a power outage?

A: The pump that circulates the solar fluid runs off electricity, so

in a power outage it won't operate, unless you have a standalone system with battery backup.



The sun
makes our
hot water.



Q: I've seen houses with old solar collectors that are full of unsightly algae. Can that be avoided?

A: Yes. The technology has made huge strides since then. For example, our solar collectors use propylene glycol instead of water. Propylene glycol is a more efficient heat transfer agent, it doesn't freeze, and algae won't grow in it. It is safe and nontoxic. And of course,

the collectors look great on your roof.

Q: Can a thermal solar system leak?

A: Theoretically anything can leak, but it is extremely unlikely that a properly-installed Schüco solar system ever will. We have one of the world's best-equipped test facilities, and test our products more rigorously than any standard requires.



Solar and You



Our solar
always
works.

It's easy to get started in solar, and solar is easy to live with.

Q: Is solar power for everybody? What if I live up north?

A: Anybody who has a good site can benefit from a solar energy system. Once you get it installed, the power is free. And solar isn't just for the sunny south – solar works in all areas with sunlight. Schüco systems are in use around the world, and we have

long experience with all kinds of weather extremes. Our systems work efficiently in pretty much any climate.

Q: What's the best place to mount solar panels?

A: Direct sunlight is the most important factor. For most people that means mounting the system on the roof, so we've devoted much time and effort to creating the best rooftop mounting

system in the industry. It fits on shingle or pitched roofs and has many engineering features that make it intrinsically sturdy.

The sun
shines
everywhere.





Q: What regular maintenance do I need to do?

A: With a Schüco system, very little. PV systems are inherently very low-maintenance, requiring the system owner only to wash the solar modules down with water when they get dirty so light can get through, and our special mounting hardware greatly reduces the need for periodic bolt-tightening. Conventional thermal solar systems require

regular venting, but our third-generation solar thermal systems don't even need that. The circulation pump and valves are mechanical, so they will need replacing eventually, but here again, our systems are self-lubricating so the service intervals are longer than with our competitors.

Q: How long will my system last?

A: If properly installed, it should last many years. Ours last a very long time. In fact, we guarantee the performance of our PV modules for 25 years, and our thermal collectors for 10 years.

Solar and You, Cont.

Q: What technical knowledge do I need?

A: With a Schüco system, basically none. We're always glad to supply any technical information you might want, but you definitely don't have to become an expert. Most people enjoy monitoring their system to see what it's doing, and we provide very convenient ways of doing this, but the fact is, our

systems run just fine all by themselves.

Q: Can I install solar myself?

A: It is best to go with an experienced installer. Your certified Schüco installer/dealer can help you determine the right system for you, and make sure everything works properly. Schüco dealers are certified for our systems, assuring you of expert installation and service.





Q: How will a solar energy system affect my home's resale value?

A: Studies show that most Americans would pay more for a home with a solar system already installed. And of course, as energy costs rise, anything that lowers those costs will add to a home's value. In addition, our systems are designed specifically to be aesthetically pleasing – they look good on a roof.

Q: Are solar energy systems vulnerable to weather?

A: Our modules and collectors have tempered safety glass set deep into heavy-duty frames, and our mounting system is extraordinarily robust. If properly installed, our systems are at least as strong as the roof they are mounted on, if not stronger.

Solar Savings

Q: How much does a solar energy system cost?

A: It is impossible to give a simple answer, since this depends on system capacity, home layout, and other variables. Certainly the cost has gone down dramatically in recent years, and now there are many tax breaks, electricity buy-back programs, and incentives. Please contact a local certified Schüco dealer for pricing and more information.

Q: How does electricity buy-back work?

A: This is often called “net metering” and is available from many utility companies. If you generate more electricity than you use, the excess goes back to your utility company, spinning the meter backward and giving you a credit for the electricity your PV system generated.

Q: Where can I find out about federal and state incentives?

A: The US Department of Energy (www.dsireusa.org) has a database of federal and state incentives for renewable energy.



So, why go solar?

Because you'll lower your utility bills, gain energy independence, and help create a better environment and a better future. It's easy to do, easy to live with, and it pays for itself.

Let's help
The world.



Building Sustainability with Schüco Solar Energy Systems

Schüco is one of the world's leading providers of solar energy systems, offering low-maintenance, high-performance systems engineered for long life and designed to fit today's lifestyles.

- Our fully integrated photovoltaic systems generate electricity from sunlight.
- Our thermal systems turn sunlight into hot water.
- Our mounting systems are

strong and safe, and fit any roof.

Schüco technologies are building sustainability on homes from coast to coast.

Your certified Schüco dealer can answer any other questions you have, and help select the right system for your home. Contact him or her, or go online. www.schuco-usa.com

Let's build sustainability.

Turn your home into a producer of clean, renewable solar energy. You'll become part of the solution to global warming. You'll also gain independence from rising energy costs.

Your certified Schüco dealer is a highly qualified professional who can answer all of your questions about solar, and install a system that perfectly fits your home and lifestyle. Whether you choose

photovoltaic, thermal, or both, you'll enjoy dependable renewable energy, lower utility bills, and personal satisfaction for many years to come. Contact your dealer today.

Schüco USA L.P.

www.schuco-usa.com