

# REAL VALUE

POWERING AMERICAN HOMES  
FOR MORE THAN 40 YEARS



Residential Solar Solutions

# REAL VALUE



## PROVIDING VALUE TO OUR PARTNERS AND CUSTOMERS

For decades, SolarWorld has led the charge to make solar power the basis for a clean and reliable energy supply around the world. As a global company with more than 40 years of solar manufacturing experience, we are able to produce products of the highest quality, creating value for our customers, partners, shareholders, employees and society.

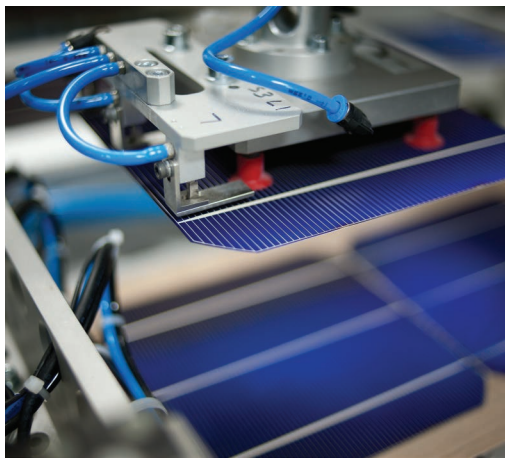
Quality is the best guarantee for consistent long-term performance of a solar system. By offering the most

advanced, durable and easy-to-install system solutions in the industry, we can ensure that any solar need can be fulfilled.

And as a leading manufacturer of solar energy products, we ensure sustainability plays a key role in all our business activities. We take great care to use ecological, economic and social resources responsibly. Come join us in our goal of creating a solar world.

## *SolarWorld Sunmodule – Quality modules made by America's largest solar manufacturer since 1975*

With more than 40 years of manufacturing experience, SolarWorld has been a global market leader for decades and played a key role in the development of crystalline solar power technology which has become the industry standard. Today, at our manufacturing facility in Hillsboro, Oregon, we sustainably produce solar cells and assemble solar panels. Our state-of-the-art facility is fully automated, boasts 430 megawatts of cell capacity and 550 megawatts of panel capacity, and embodies our decades of proven solar experience. With global wafer production, SolarWorld ensures the highest quality levels throughout the entire production process. With at least 25 years of performance guaranteed, our quality ensures our customers are getting the most secure investment in the long run. SolarWorld makes your decision to go solar easy.



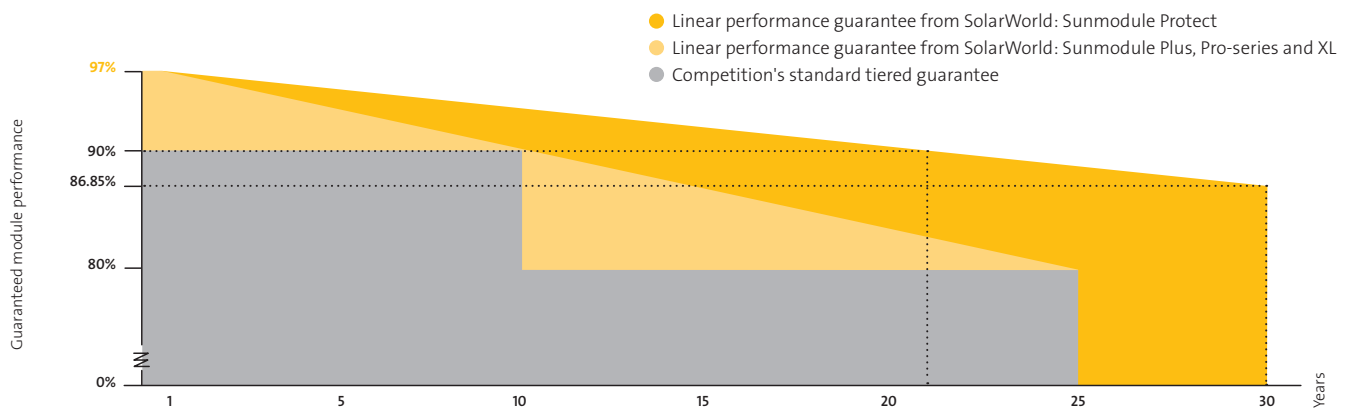


## Industry-leading warranties – For your peace of mind

Our performance guarantee provides top value for our customers and confirms our high quality standards. With our 25-year linear performance guarantee on all Sunmodule Plus, Pro-Series and XL solar modules, our 30-year linear performance guarantee for our glass-glass Sunmodule Protect and our 10-year product workmanship warranty on all our solar panels, we deliver premium product performance and long-term security. Our history and warranties mean there is little chance you will ever have to worry about your system.

**Guaranteed to deliver: We promise our customers reliability.**

### Linear performance guarantee\*



\* in accordance with the applicable SolarWorld service certificate upon purchase • [www.solarworld.com/warranty](http://www.solarworld.com/warranty)



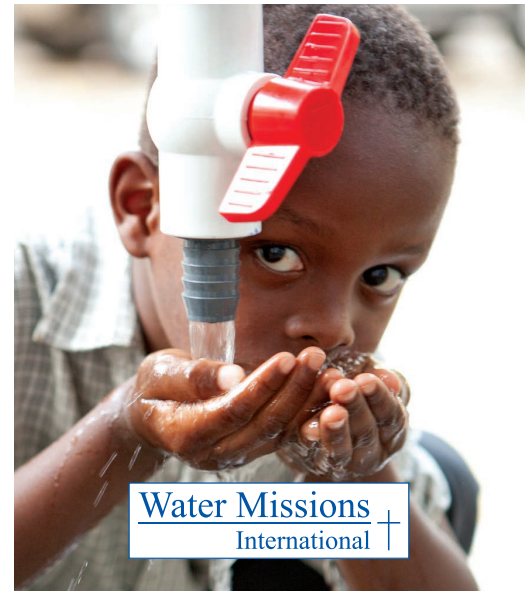
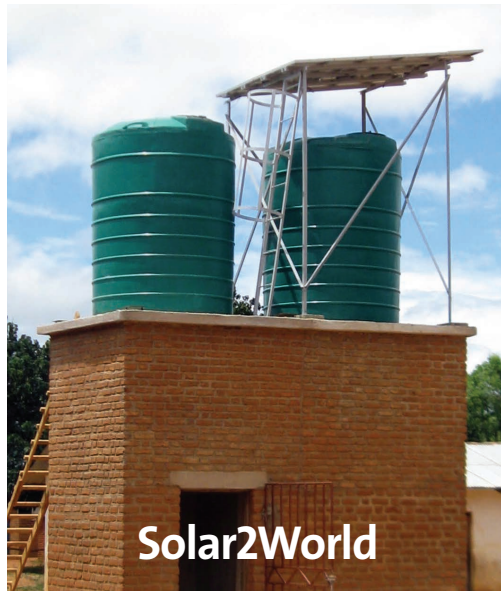
### Sunmodule<sup>®</sup> Plus, Pro-Series and XL

With our 25-year linear performance warranty, SolarWorld guarantees a maximum annual performance degradation of 0.7 %. The warranty offers comprehensive protection for your investment in the long run.



### Sunmodule<sup>®</sup> Protect

SolarWorld set new standards with the ground-breaking 30-year linear performance guarantee. A maximum degradation of just 0.35% per year ensures a guaranteed module performance of 90% after 21 years and 86.85% after 30 years.



## *A passion for the environment, a commitment to community*

Our commitment to sustainability goes deeper than our products. It starts with how we manufacture our products, how we treat our employees and what materials we choose, then extends outward to the communities we serve.

We believe that sustainability begins on the inside. We are proud to perform award-winning, eco-friendly practices all the way through our production process, from raw material procurement to the packaging of our finished products.

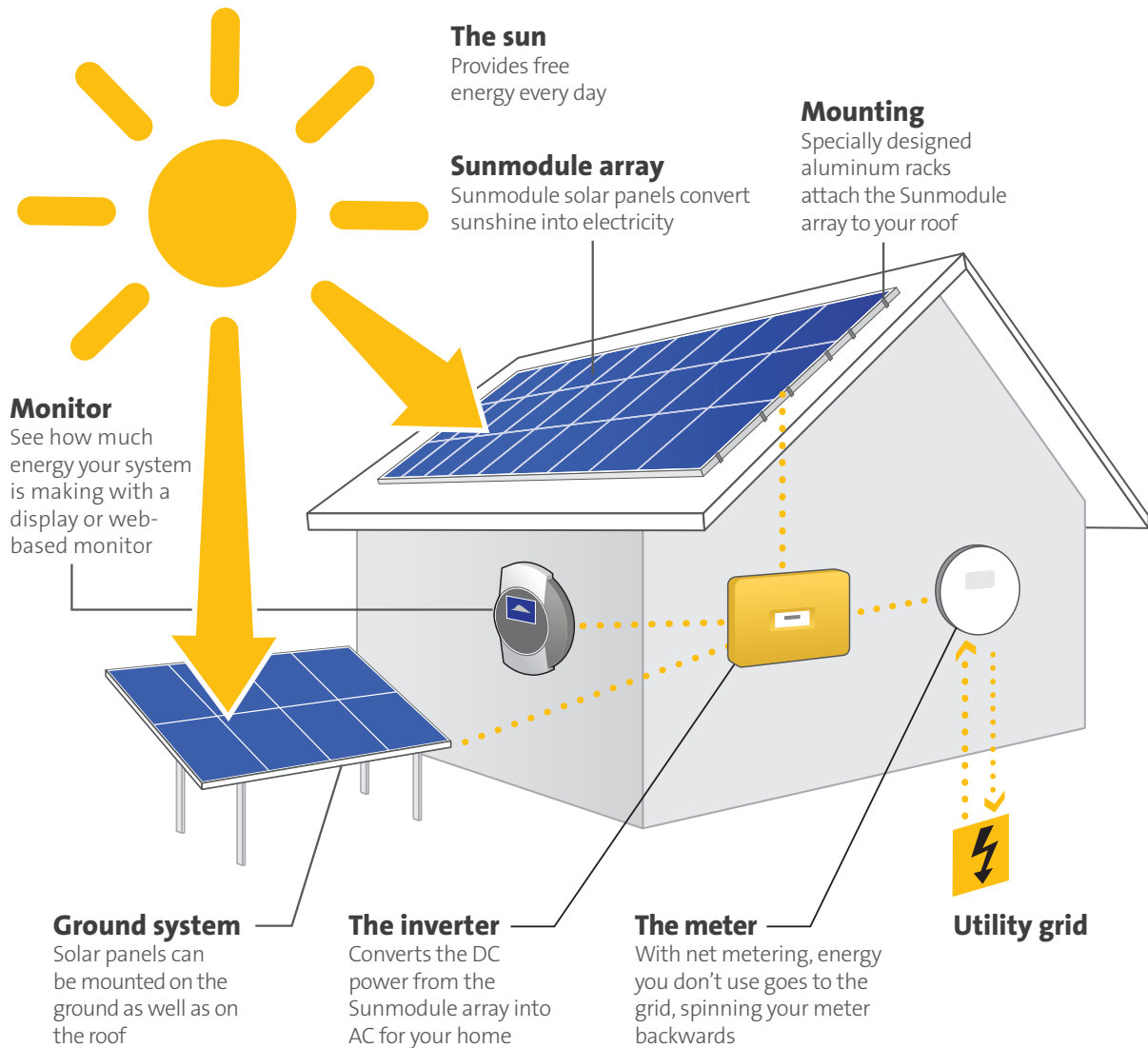
- » SolarWorld is a **Green Brands certificate winner** for 2014-2015. The Green Brands certificate is presented exclusively to brands with a **proven track record of environmentally sustainable actions** both inside and outside the company.
- » SolarWorld Sunmodules are **the first Green Certified solar panels** under the National Green Building Standard.
- » We have been **certified for our environmental management** since 2010 (ISO 14001).
- » We participate in the Carbon Disclosure Project with our goal to **reduce our carbon emissions by 8% p.a.** in CO<sub>2</sub>e/Wp.
- » We have a commitment to the Global Reporting Initiative.

At the same time, we strive to give back to society through community programs, including Solar2Schools and Solar2World.

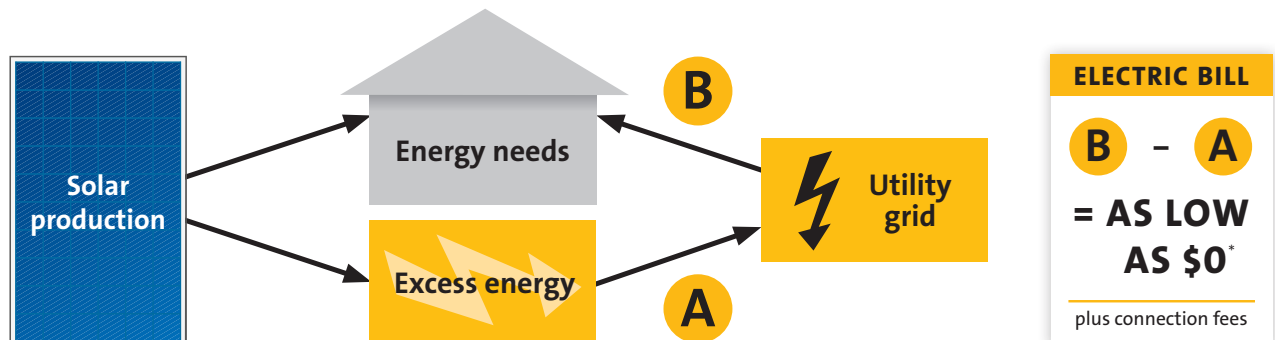
- » Our **Solar2Schools** initiative brings solar to our youth, giving them a firsthand opportunity to learn about renewable energies.
- » Our **Solar2World** initiative brings solar to those who otherwise would be without electricity.
- » Our partnership with **Water Missions International** brings clean, safe water to remote villages throughout the world.



## How solar works



## How net metering works



\* Not all systems achieve 100% energy bill reduction.



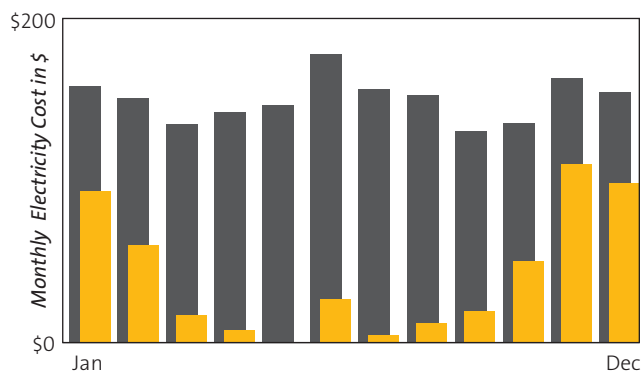
## Great for your wallet. Great for the planet.

Dramatically reduce or eliminate your electricity costs. Say goodbye to ever-increasing energy rates. Decrease your carbon footprint. All of this is possible with SolarWorld.

- » Many homeowners **save thousands of dollars** each year.
- » **Avoid ever-increasing electricity rates** and peak hour rates.
- » Studies show that **homes with solar sell more quickly, for more money** than non-solar homes.  
(Source: NREL)
- » **Government incentives can cut 30% or more off** the total installation cost.
- » No moving parts means **minimal maintenance**.
- » Our **25-year and 30-year warranties** leave you worry-free.
- » **Feel good** about reducing the country's need for nonrenewable resources.

### MONTHLY ELECTRICITY BILL SAVINGS

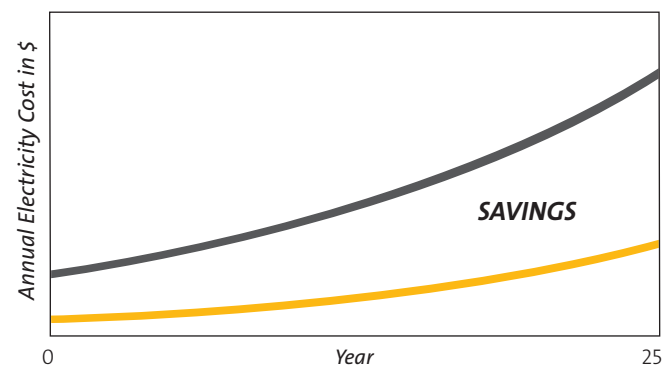
- Before solar
- With solar, bill is reduced by 72%



Charts are samples from actual installations. Your results may vary.

### PROTECT AGAINST RISING ENERGY COSTS

- Without solar
- With solar





## *All solar panels are not created equal*

Think all solar panels are the same? Think again. Maximize your return on investment with worry-free performance by selecting an experienced manufacturer that builds its products for the long run.

### *Experience matters*

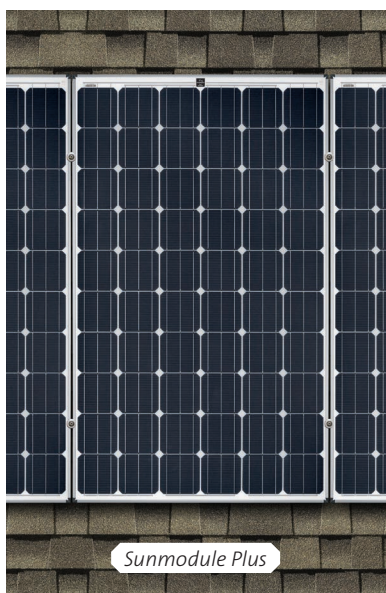
There are hundreds of young start-up solar companies today, and it's tough to know which panels to choose.

- » A solar panel should last for decades. Select a manufacturer you are confident will be around to **honor warranties as well as service commitments**.
- » Choose a company that **controls all aspects of the manufacturing process**—from wafers to cells and panels—to ensure every component is of the highest quality.
- » **Support American manufacturing** by selecting solar panels made here on U.S. soil.
- » Look for a proven track record with **more than 25 years in business**.

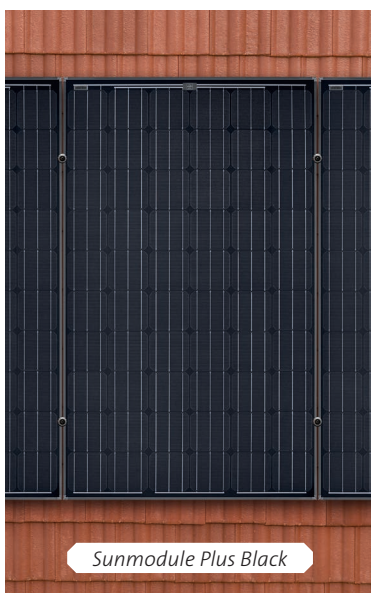
### *Choose long-term production over efficiency*

Many manufacturers are touting efficiency (rated power per square foot) as the most important feature of a solar panel. However, making a panel more efficient can actually limit its long-term performance, yielding less energy over the life of your system.

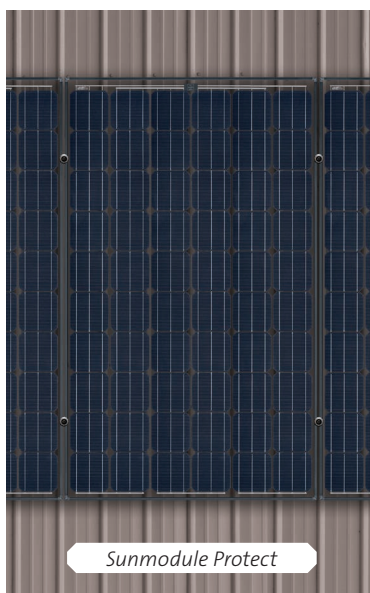
- » Some panel manufacturers crowd solar cells together and up against the frame. The result: shading from mounting components, excess accumulation of dirt over the cells, and reduced potential for light capture and energy production.
- » Ensure that your system will **produce energy for several decades**, while subjected to a variety of environmental forces.
- » Make your purchase decision on **proven real-life, long-term system performance**—not how much power a single panel can produce in optimal laboratory conditions.



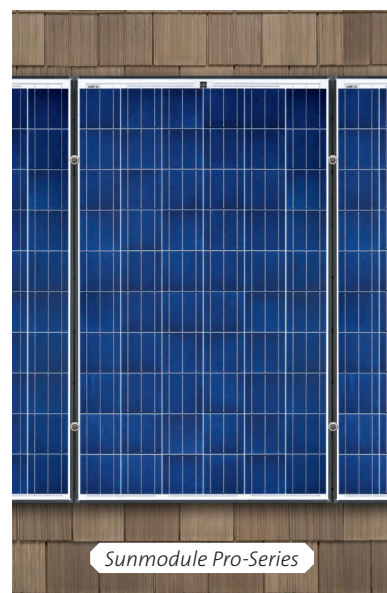
Sunmodule Plus



Sunmodule Plus Black



Sunmodule Protect



Sunmodule Pro-Series

## *Benefit from maximum energy output*

SolarWorld's Sunmodule solar panels are designed, tested and manufactured with attention to every detail. The result: **maximum energy output for your solar investment.**

### *Designed for the real world*

In the real world, it rains, it snows and the wind blows. Our panel design is artfully configured to **ensure high performance during decades of exposure to real-world conditions.** This is exactly why our solar panels are actively converting sunlight to energy all over the world — on homes, businesses, farms, parking lots — just about anywhere the sun shines.

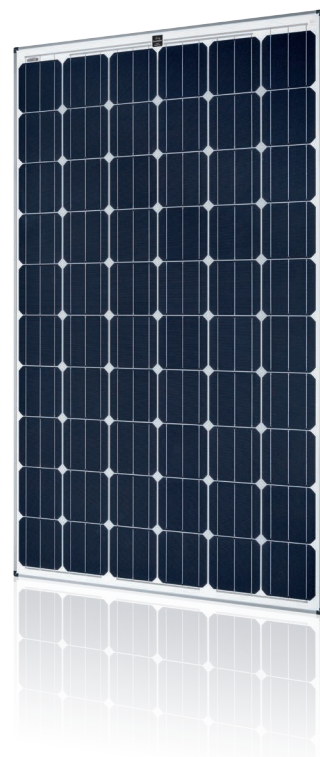
### *Made from the highest-quality materials*

Solar cells are the engines that power solar panels, which is why we don't trust anyone else to make them for us. To guarantee peak performance and reliability, we apply our stringent quality requirements on all our materials—and very few suppliers are able to meet our strict standards—then **we make all our solar cells and panels in-house.**

Call us control freaks, but our proprietary components and processes ensure we consistently exceed industry standards.

### *A promise you can believe in*

Many companies claim to have high-power solar panels, yet they are rarely available to the average homeowner. With the annual capacity to produce 430 megawatts of our high-powered cells and assemble 550 megawatts of our high-quality panels right here in the U.S., and well over a gigawatt of each globally, we know we can deliver what we promise.





## *Solutions for every home, every location*

Choosing Sunmodule solar panels is a great first step to creating a powerful solar system. Now you will need to find the right location for your system to unleash its full potential and generate maximum energy. A SolarWorld installer will work closely with you to choose the best location and system size for your home energy needs.

### *Rooftop solar systems*

**Rooftop systems are the most popular option for homeowners.** Many residential roofs have enough available space and are well-suited for optimal energy production, depending on roof direction and shading issues.

SolarWorld rooftop solar systems:

- » **Withstand extreme environmental conditions** while maintaining the integrity of your roof.
- » Can be **installed on nearly any roof.**
- » Help **keep your home cooler in the summer** by providing shade from the sun and **warmer in the winter** by creating a heat barrier.
- » May extend the life of your roof by protecting it from the elements.

### *Ground-mounted solar systems*

If you have a need for a larger system than your roof area will accommodate, a ground-mounted system may be right for you.

SolarWorld ground-mounted solar systems:

- » Anchor to the ground with a **variety of foundation options.**
- » **Withstand extreme environmental conditions.**
- » Can be **installed on nearly any contour** at a variety of heights and tilt angles.
- » Can also **function as shade structures** for the backyard or driveway.



## *Worry-free design and installation*

SolarWorld solar systems are guaranteed for at least 25 years of peak power production, so proper system design and installation are critical.

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## *Superior solar installation*

SolarWorld partners with only the best, most experienced solar installers to ensure the highest-quality designs and installations. Since our network spans the U.S., we promise a worry-free installation wherever you live.

## *Proven experience*

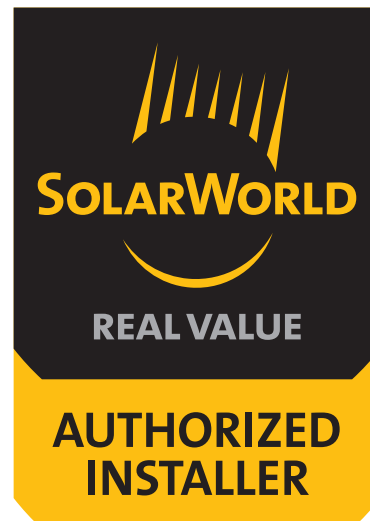
Our installation partners are among the most professional and experienced in the industry. Our systems are **installed to last** without damaging your roof or property.

## *Factory trained and audited*

We don't trust just anyone with the installation of our solar panels. The SolarWorld Authorized Installer program requires a **thorough review** of each contractor's business and installation practices. Partners are **factory-trained** in safety and best practices as well as **routinely audited** to ensure they meet and exceed our high standards.

SolarWorld Authorized Installers exercise professional business practices and are required to undergo background checks and maintain positive customer reviews.

You can take comfort in knowing that a quality installation and a positive solar experience is as important to SolarWorld as it is to you.







Utah



Hawaii



West Virginia



Oregon

## Have questions? We have answers.

### Financials

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#### How much does a solar electric system cost?

The cost of your solar investment will vary greatly, depending on the size of the system, your location and available incentives. If you don't already have an installer to help you, go to [solarworld.com](https://solarworld.com) and schedule your free solar consultation.

#### What incentives are available to me?

SolarWorld solar systems sold in the U.S. are eligible for a 30% federal tax credit. Additional state, local and utility incentives exist in many areas, further lowering the net cost of your investment. Ask a SolarWorld installer about available incentives in your area.

#### Can my electric bill really be \$0?

Depending on your system design, yes. Some solar systems produce more electricity than is used by the home, bringing net electricity costs to \$0. However, typically there is a minimal connection fee to remain connected to the electrical grid.

#### Do I get paid for my extra energy production?

Currently, most of America is under a system known as net metering, which allows your net electricity costs to be reduced to zero. In some locations in the U.S., you can be paid for any excess electricity you generate.

### Installation

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#### Does a solar system require permits?

Yes. Your SolarWorld installer will handle all the paperwork to make the process quick and easy.

#### Can I install solar panels myself?

It is not recommended. The process requires qualified electrical and roofing expertise to ensure the system is safe and optimally designed for 25-plus years of production.

### Maintenance

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#### How much maintenance does a solar system need?

With no moving parts and at least a 25-year expected life-span, SolarWorld solar panels require very little maintenance. In fact, their design ensures that they remain relatively clean as long as they are exposed to rain or a quick rinse with a garden hose every few months.

### Weather

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#### Is solar a viable option in cold climates?

Yes. If your solar panels are in contact with even small amounts of light, they can produce electricity. In fact, given equal sunlight, a solar panel in a cold climate will out-perform a solar panel in a hot climate.

#### How do solar systems fair in extreme weather conditions?

Sunmodule solar panels can withstand high wind and snow loads. In fact, they are rated higher than any other solar panels under UL standards and have been certified for installation near blowing sand, salty air and agriculture.

#### How does snow affect a solar system's performance?

While snow will decrease production when on your panels, it will not damage a properly designed and installed system. Given the angle of the panels and their tendency to produce some heat, the snow will slide off your panels faster than it would slide off your roof, quickly returning your system to its full potential.

### Blackouts

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#### Will my system still generate power during a blackout?

For the safety of workers attempting to fix power outages, solar systems that are connected to the electrical grid are required by utility regulations to shut off during blackouts. SolarWorld recommends battery backup in places where blackouts occur regularly. Ask your installer about this option.

## *Off-grid systems*

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### **Can I take my home off the electrical grid?**

If you have an optional battery-backup system installed, you may be able to power your home entirely on energy produced by your solar system. However, in some areas, it may be illegal to truly disconnect from the grid. A SolarWorld installer can provide you with the pros and cons of choosing to go off-grid.

## *Selling your home*

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### **I don't plan on being in my home for 25 years. Why would I add solar?**

A solar electric system can still be financially beneficial to you and your family. A solar system will start reducing your electric bills immediately and even pay for itself in as little as five years. Even if you move before your solar investment is completely paid off, studies by the National Renewable Energy Laboratory show the remaining value will likely be returned upon sale of your home. Plus, your home will most likely sell faster. Who doesn't want a home with a guaranteed low electric bill? Our warranty is even transferrable one time to a new owner.

## *Roof integrity*

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### **How does a solar system affect my roof integrity?**

When design and installation best practices are followed, your roof will maintain its integrity. SolarWorld audits and trains all our Authorized Installers on these best practices so that you can rest easy knowing that your roof will be okay. Be sure to ask your installer about any guarantees it offers on its installation quality.

## *Safety*

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### **Are there any fire, electrical or other dangers from a solar system?**

Similar to any other electrical component, proper installation will greatly limit any dangers. However, you

should still take care to ensure your system is not easily accessible by children or animals who could potentially damage the system and possibly injure themselves. If your system becomes damaged in any way, immediately seek assistance from a qualified installer or electrician.

## *Insurance*

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### **Can a solar system be insured?**

While SolarWorld does warranty solar panels for 10 years on workmanship and 25 or more years on energy production, we do not cover theft or damage from external sources. However, most homeowner insurance policies will cover your solar panels. Check with your insurance provider.

## *Homeowners Associations / Neighbors*

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### **Can my HOA or neighbors prevent me from installing a solar system?**

Most often, no. Currently, more than 40 states have Solar Access Laws that provide varying degrees of protection against restrictions anyone - HOA, neighbors or even local government - can place on your solar system. Your local SolarWorld installer will be able to discuss the laws and policies in your area.

## *Pools*

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### **Can SolarWorld's solar panels heat my pool?**

If your pool is currently heated, it most likely uses natural gas, so solar electric power will not be able to assist in the heating process. However, our solar panels do offset the power used by a pool's electric pumps, which has been shown to be the most significant impact of a pool on energy bills.



## *Find out more*

Do you have any questions about SolarWorld's quality standards or individual products? If so, don't hesitate to contact us. We will gladly provide you with additional information and show you exactly how SolarWorld can prepare you for the solar future today.

***SIMPLY CALL US OR SEND US AN EMAIL:***

PHONE: 855-GO-SOLAR

 ***SOLAR4HOME@SOLARWORLD.COM***

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