



Building green energy solutions for a new generation





You care about the environment.

Building a better future for your business and the environment.

You care about your business and the environment and are committed to cutting your CO₂ emissions while securing your business and commercial projects for the future. Whether you are enabling businesses, farms, schools, or community buildings to become more energy efficient, we all face the real challenge of unpredictable, rising energy costs and are discovering the real savings and independence the latest solar PV technologies can deliver. Choosing the right panels for your commercial project by investing in the right solutions today means you will benefit long into the future as you lower operating costs and see greater returns for your business and your customers.

Our vision glass-glass panels are premium quality, robust and have long-lasting durability. Panels that can cope with all commercial settings, testing weather conditions and come with unrivalled Solarwatt guarantees. We want our PV panels to have the same longevity as your commercial spaces and make a positive impact on the communities you serve.

You care about

- ✓ **Sustainability** - Demonstrating your commitment to a greener future across your business, for your employees and customers alike
- ✓ **Business growth** - you want to lower your commercial risk and grow your business
- ✓ **Quality & Innovation** - you want a high quality product with long-lasting performance
- ✓ **Independence** - You want the freedom to navigate rising energy costs and reduce reliance on the grid

1 The Terraced Tower, Rotterdam, Netherlands

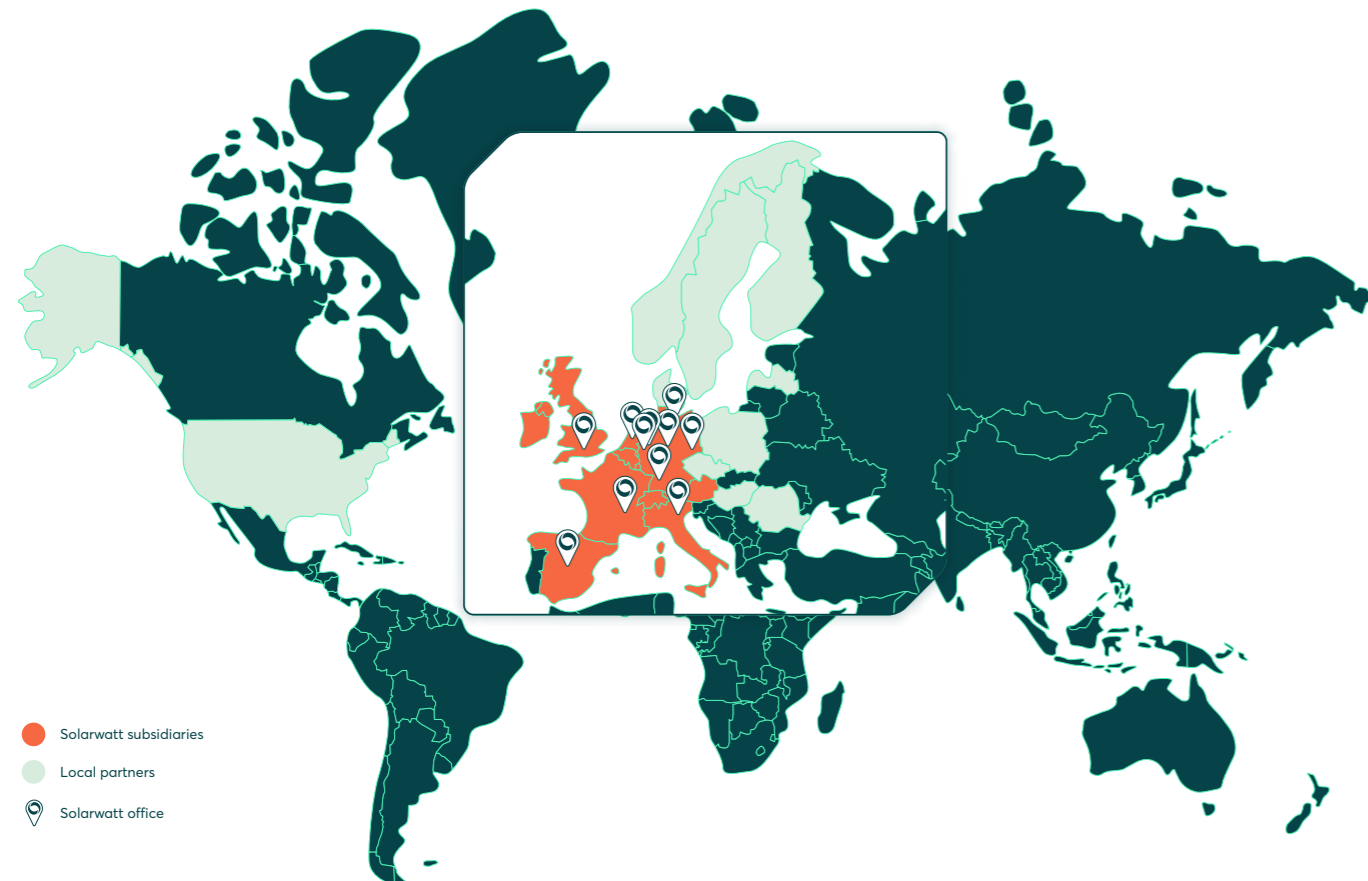
We do too

by providing premium solar panels for the future with clean, green solar solutions to power a better tomorrow

Solarwatt premium photovoltaic systems capture the power of the sun to deliver clean energy, helping you lower energy bills and prepare your commercial operations for the future. As a German manufacturer, we have been at the cutting edge of this industry for the last 30 years.

We care about delivering

- ✓ **Cutting-edge solutions** that are high-performance, high-quality, sustainable systems
- ✓ **Unrivalled product guarantees** across our module portfolio
- ✓ **Bespoke solar solutions** - designed to promote off-grid autonomy and lower energy costs
- ✓ **Holistic support services** with best-in-class expert advice
- ✓ **Return on investment** - We provide the highest energy yields for decades, maximising solar integration



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"The renovation of our system now allows us to be completely self-sufficient – we use the sun's energy without releasing carbon dioxide into the atmosphere. The energy we produce in excess is stored for cloudy or rainy days."

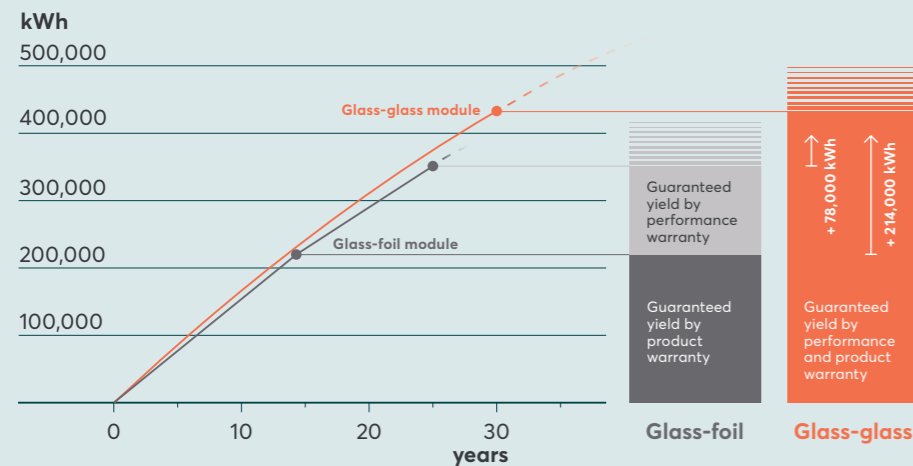
— Claudia Firenze, Traditional Italian handmade leather goods

1 Claudia Firenze, Pontassieve, Italy

Glass-glass technology. The generational modules.

The major advantage of glass-glass modules lies in the material properties themselves: glass does not age. Our rigorously tested modules withstand thick snow loads, aggressive gases including ammonia plus acid rain and salt mist – so energy yields remain stable, for generations to come.

The power-generating solar cells are protected by a 2-millimeter thick glass layer on both sides, bonded together by lamination to be water- and airtight. As a result, Solarwatt modules not only achieve a much longer service life, but also generate more electricity than conventional solar panels.



	● Glass-foil	● Glass-glass
Product guarantee	15 years	30 years
Guaranteed yield	218,000 kWh*	432,000 kWh*
Performance guarantee	25 years	30 years
Guaranteed yield	354,000 kWh*	432,000 kWh*

SOLARWATT glass-glass-modules

- 30-50 % more kWh guaranteed
- 15-45 % lower kWh price from self generated electricity
- 2 x doubled product warranty period

Glass-glass modules provide optimum protection for the valuable solar cells

- ✓ Glass-protected from both sides
- ✓ No fractures, cracks or dead cell areas
- ✓ Minimum degradation of power for more than 30 years

Anti-reflective glass

Embedding material

Cross-connector cover

Highly efficient cells

Embedding material

Thermally tempered glass

Aluminum frame

Return on investment to grow your business.

Our photovoltaic modules can generate up to 50 years of environmentally friendly electricity. Our advanced modules, batteries and energy management systems offer lasting protection against energy price volatility and grid failure.

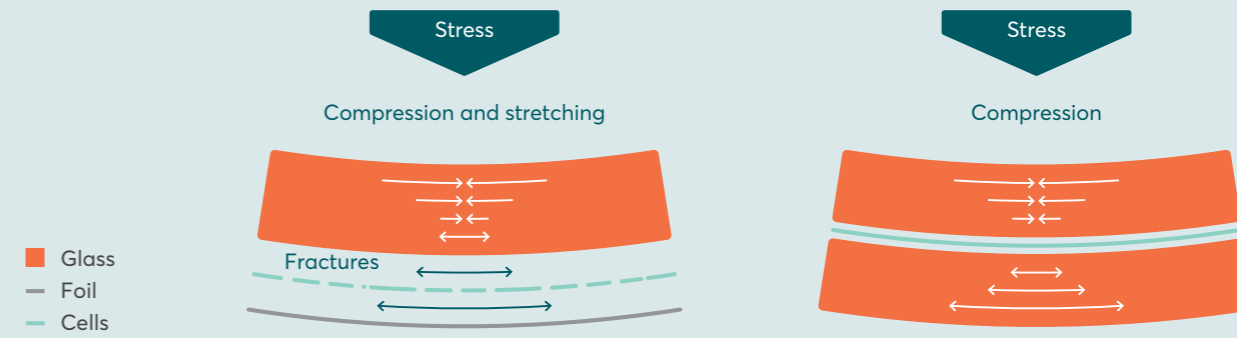
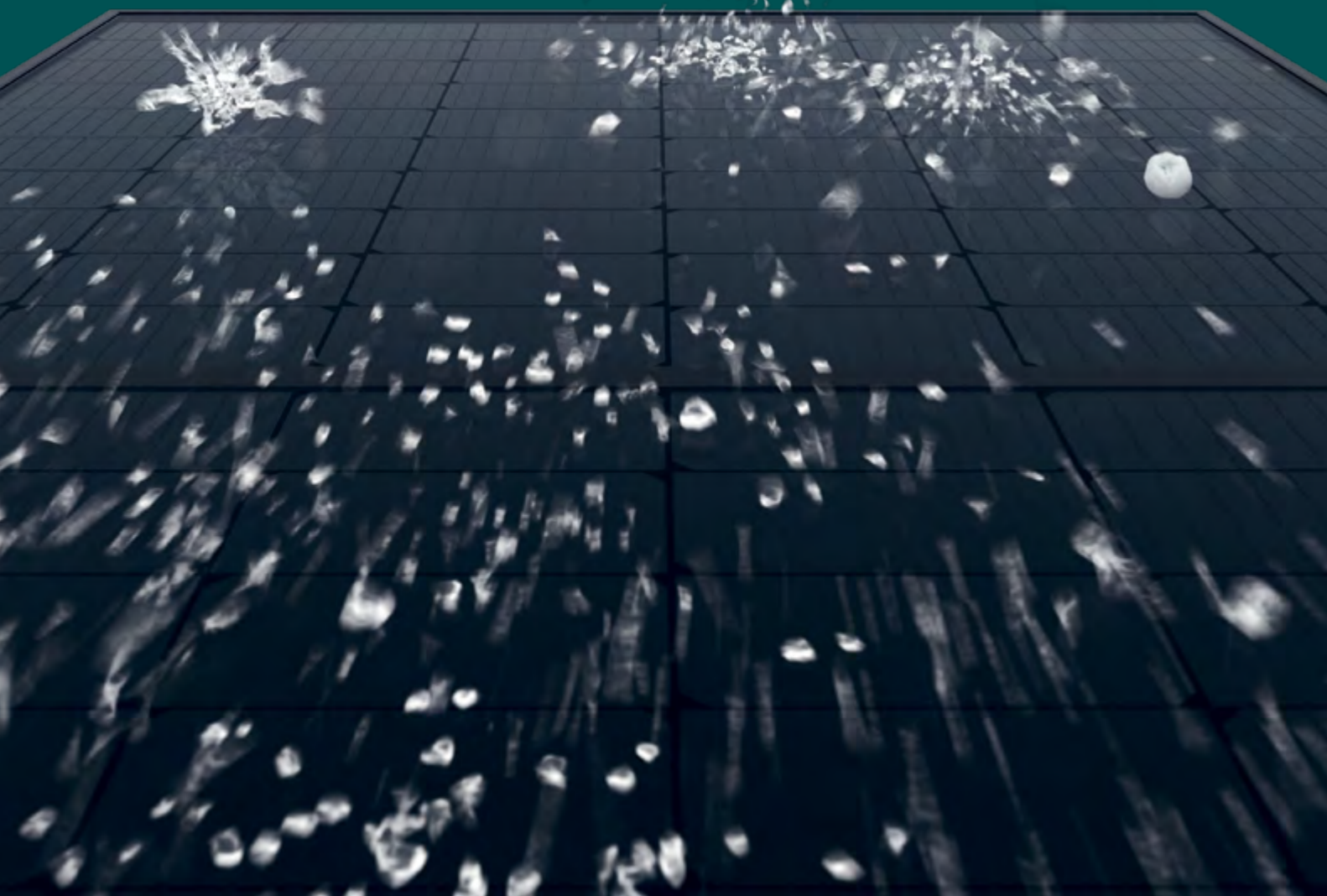
That's why we offer an industry-leading 30-year warranty on product and performance, covering repair and replacement, transport and reinstallation costs. After 30 years, our modules are guaranteed to still have at least 90% of their original output.

* based on a simulated 12 kWp, 35°, south installation in Cambridge, UK (PV Sol)



Panels that top every test. Even the test of time.

Powerful TOPCon cells are sensitive by nature – so, in our state-of-the-art manufacturing processes, we enclose them on both sides with thermally tempered glass. This makes our glass-glass modules significantly more robust than traditional glass-foil modules. With this protection, mechanical stresses caused by hail, harsh weather or snow won't lead to microcracks and the cells are generally less susceptible to damage. Steam and other highly aggressive agents such as salt spray or ammonia are also unable to penetrate the glass. And because glass doesn't really age like other materials, even time itself would struggle to take its toll.

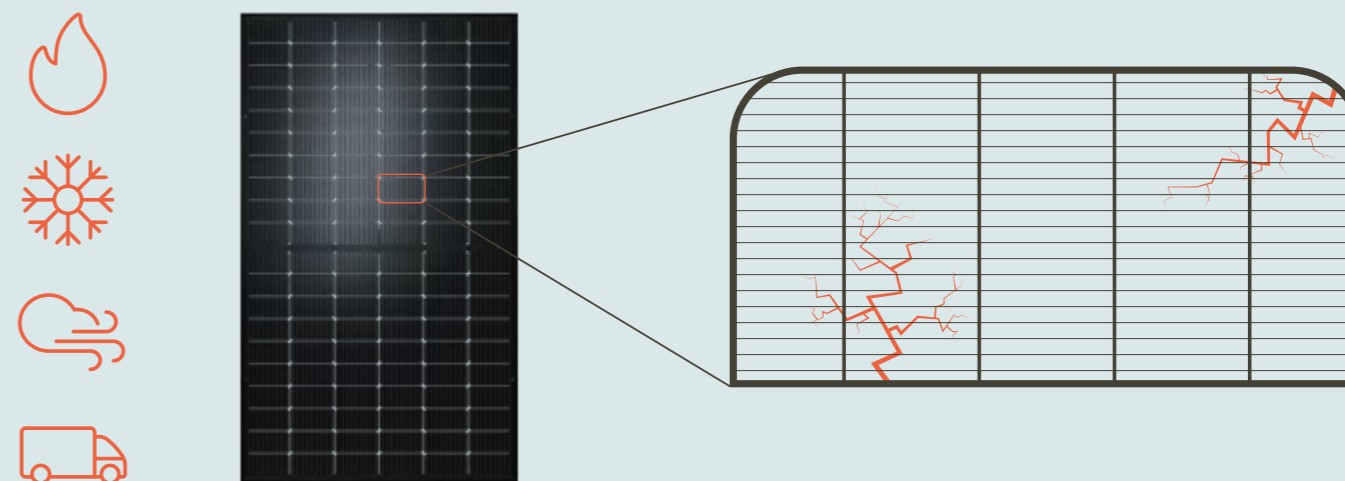


Glass-foil modules

When glass-foil modules are subjected to mechanical stress, such as wind or snow, cells can crack. These cracks permanently reduce the module's energy yield.

Glass-glass modules

In glass-glass modules, the sensitive cells are situated within the neutral fiber of the composite, where they are only bent and never stretched or compressed. This prevents any cracking of the cells.



Microcracks

Microcracks are tiny hairline cracks in a solar cell that are invisible to the naked eye. Even though you cannot see them and adverse effects are unlikely to be produced immediately, microcracks are broken solar cells held in place by the solar module laminate.

After a time, the solar modules will be affected by various pressures such as bending and flexing, caused by external pressure and fluctuating temperatures. During the day, solar panels expand because of higher temperatures. Small imperfections in the silicon cell can lead to larger microcracks. The length of microcracks can vary; some span the whole cell, whereas others appear in only small sections.

Microcracks not only lead to significant loss of yield in a solar panel, the performance of panels without microcracks in the same string is also likely to be affected, which consequently affects the lifetime of a solar PV system.

Solar cells are very fragile and unless they're properly protected, microcracks can develop quickly. The chance of microcracks occurring in a glass-glass panel is nil, provided it leaves the factory without them. A manufacturer can verify this with an electroluminescence (EL) test, similar to an X-ray.

Solarwatt's high quality standards ensure that any solar panel with microcracks is rejected.

With glass-foil panels, solar cells are much less protected. During transport, installation or, for example, a major hailstorm, microcracks can occur faster. Their effects, however, are not noticed until much later, due to reduced performance following continued deterioration. Microcracks are always outside guarantees provided by manufacturers.

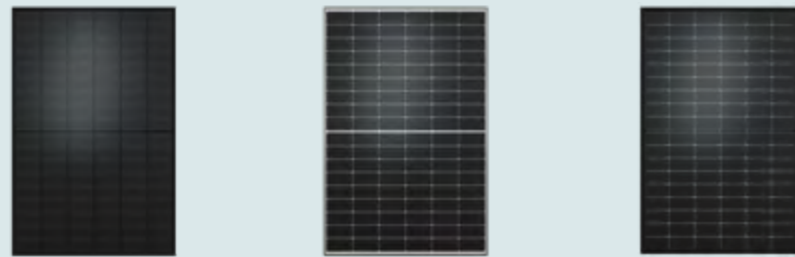
Collect solar energy

Get to know our modules and find exactly the right solution for your requirements.

- ✓ Designed in Germany
- ✓ 30 year glass-glass product and performance warranty (15 year product on XL panels)
- ✓ 25 year glass-foil performance warranty (20 year product)



Panels that pass every test. Even the test of time. Framed glass-glass



TOPCon Panel vision M

	Panel vision M 5.0 black	Panel vision M 5.0 pure	Panel vision M 5.0 style
Power	Up to 455 Wp	Up to 455 Wp	Up to 460 Wp
Technology	Glass-glass	Glass-glass	Glass-glass
Properties	Bifacial Low CO ₂ footprint High Recycling Rate Black frame Black between cells	Bifacial Low CO ₂ footprint High Recycling Rate Silver frame White between cells	Bifacial Low CO ₂ footprint High Recycling Rate Black frame Transparent between cells
Cell Type	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire
Dimensions (mm)	1,762 x 1,134 x 35	1,762 x 1,134 x 35	1,762 x 1,134 x 35
Weight (kg)	24.8	24.8	24.8

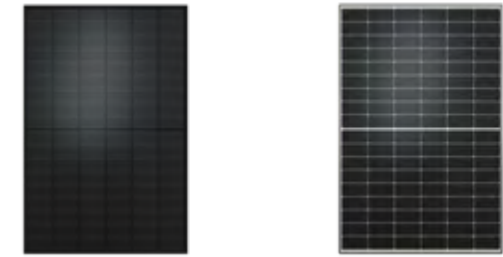


TOPCon Panel vision XL

	Panel vision XL 5.0 style	Panel vision XL 5.0 pure
Power	Up to 615 Wp	Up to 615 Wp
Technology	Glass-glass	Glass-glass
Properties	Larger module surface Bifacial Low CO ₂ footprint High Recycling Rate Black frame Transparent between cells	Larger module surface Bifacial Low CO ₂ footprint High Recycling Rate Silver frame White between cells
Cell Type	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire
Dimensions (mm)	2,382 x 1,134 x 30	2,382 x 1,134 x 30
Weight (kg)	33.4	33.4



The next generation of glass-foil panels. Framed glass-foil



TOPCon Panel classic M

	Panel classic M 3.0 black	Panel classic M 3.0 pure
Power	Up to 455 Wp	Up to 455 Wp
Technology	Glass-foil laminate	Glass-foil laminate
Properties	Low CO ₂ footprint High Recycling Rate Black frame Black between cells	Low CO ₂ footprint High Recycling Rate Silver frame White between cells
Cell Type	Cell format M10 182mm TOPCon technology half-cut + multiwire	Cell format M10 182mm TOPCon technology half-cut + multiwire
Dimensions (mm)	1,762 x 1,134 x 35	1,762 x 1,134 x 35
Weight (kg)	20.9	20.9

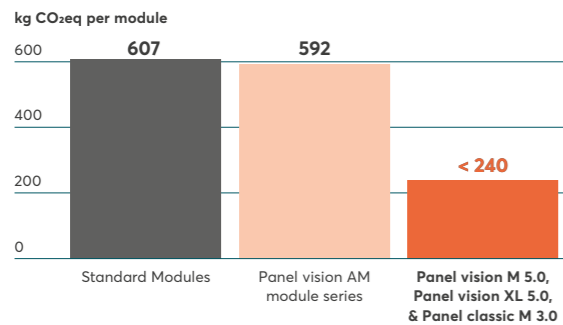


Low CO₂ footprint

SOLARWATT Panel vision M & XL 5.0
SOLARWATT Panel classic M 3.0

SOLARWATT panels have a very low CO₂ footprint. This means that after less than one year and three months, the electricity generated has already saved as much CO₂ as was generated during the manufacturing and delivery of the module. From this point onwards, the PV system is CO₂-neutral and actively contributes to climate protection.

In some European countries, there are already tendering and subsidy conditions that stipulate a maximum CO₂ value per module, e.g. the PPE2 standard in France. SOLARWATT panels fulfil these requirements and are also prepared for future standards and subsidies in Germany.



< 220 kg CO₂eq per module

(without frame, with frame: <= 240 kg CO₂eq)



Zero-Carbon Factories

Our modules are produced in zero-carbon factories. These are production facilities that do not produce any CO₂ emissions. This is achieved through various measures, such as:

- Use of renewable energies to power our factories, such as solar and wind power
- Energy-efficient production processes
- Offsetting unavoidable emissions, such as through reforestation projects

Confirmed by TÜV SÜD



Made from recyclables

Recycling is important to us. Even today, a large proportion of raw materials can be replaced with high-quality recycled materials. Many materials get a second life in our modules:



75%

recycled **aluminium** in our module frames



45%

recycled **silicon** for the production of our solar cells



20%

recycled **glass** used in our PV modules

Disposal & Recycling secured

At the end of their long service life, photovoltaic modules should be disposed of responsibly, ensuring that their raw materials are effectively recycled and reintroduced into the production cycle.

In accordance with the EU WEEE Directive, Solarwatt already deposits a sum of money for each module sold in order to guarantee future disposal and recycling. Homeowners or installation companies can dispose of defective modules free of charge at all electronic waste collection centres.



Fair working conditions

With our commitment to environmentally friendly products and fair working conditions, we at Solarwatt emphasise our claim to be a pioneer in sustainable photovoltaics.

We go far beyond the legal requirements and make an important contribution to a sustainable energy supply. We purchase raw materials exclusively from suppliers who are committed to the employment standards of the International Labour Organisation (a United Nations institution).

In all international production facilities, we not only guarantee the exclusion of child and forced labour, but also appropriate payment and organised representation of employee interests. Through regular inspections of working conditions and ongoing checks on product quality, we ensure that all standards are met.

Fair wages | No forced labour | No child labour | Employee representation - across our entire supply chain



Silicon



Silicon Ingot



Wafer



Solar Cell



Solar Module



“Glass-glass panels are called ‘the generational panel’ because with their longevity and quality, you can forget about whether they’ll keep performing or withstand the sea and salt air – they will, but we’re protected.”

Pearse, Salthouse Hotel, Ballycastle

“The uniqueness of their glass-glass panels brings quality and design together along with performance guarantees. It was a pleasure to partner with Solarwatt at every touch-point with great communication and bespoke service throughout the project.”

Kees Nielen, Partner at Energy@theoffice, The Terraced Tower, Rotterdam NL



“Solarwatt is able to offer Irish customers seamless service and support so they are covered at every stage of the project. Investing in Solarwatt’s premium glass-glass panels that are guaranteed to last for 30 years adds value to any project combining quality & performance that lasts.”

Neil McKee, member of the leadership team, BHC Distributors Ltd



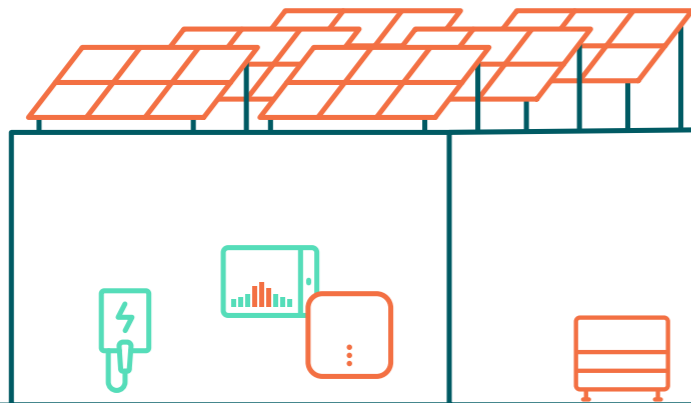
Powerful and Cost-Effective

Solarwatt is the only supplier to produce all the essential components of your solar system itself: PV panels, energy managers, and battery storage. These building blocks complement each other perfectly and using them together strengthens their efficacy. The result for you: maximum efficiency and independence.



SOLARWATT Panel

Vision modules with glass-glass technology and built-in optimizers for reliable yields for decades.



SOLARWATT Battery

The SOLARWATT Battery vision combines state-of-the-art storage technology with outstanding design and maximum safety.

SOLARWATT Charger

Optimise your electric mobility with the seamlessly integrated SOLARWATT Charger.

SOLARWATT Manager

For intelligent control of all home appliances and maximum utilisation of your PV system with Manager flex.



Go solar with Solarwatt.

Together we can build a greener future.

We want to make it as easy as possible for you to be part of a positive change in the way we generate energy. No matter whether you'd like a general and no-obligation chat or have specific questions, we'd be happy to talk. We look forward to your call or email.

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Errors expected.
Subject to change.



**We at Solarwatt
are the lifelong
companion for people
wanting to supply
themselves with
clean  energy.**