

About SolarEdge

About us

In 2006, SolarEdge revolutionized the solar industry by inventing a better way to collect and manage energy in PV systems. Today, we are a global leader in smart energy technology. By deploying world-class engineering capabilities and with a relentless focus on innovation, we create smart energy products and solutions that power our lives and drive future progress.

Vision

We believe that continuous improvement in the ways we produce and manage the energy we consume will lead to a better future for us all.



Bankability

- Approved by major banks and financial institutions worldwide
- SolarEdge (SEDG) is traded on NASDAQ
- Our financial strength and stability, combined with our cutting-edge technology, has propelled us to become one of the largest inverter manufacturers in the world

Award-winning technology









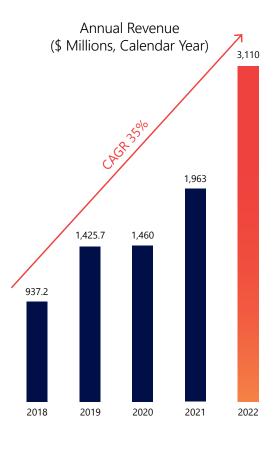






Power provided

- Over 5.5 million inverters, 51.7 GW, and more than 122.9 million Power Optimizers delivered worldwide
- SolarEdge's Monitoring Platform continuously tracks over 3.6 million installations across the globe





Global outreach

- Systems installed in 140 countries across five continents
- Sales via leading integrators and distributors
- Follow the sun call centers
- Local teams of sales, service, marketing, and training experts
- Global manufacturing capabilities with tier 1 electronic manufacturing service companies

Corporate social responsibility

As a global leader in smart energy technologies, SolarEdge is committed to a sustainable world and is in full compliance with international standards on quality and control, ethical conduct, and environmental protection













Patents

SolarEdge has a vast portfolio of intellectual property, with hundreds of awarded patents and patent applications

Product reliability

- 25-year Power Optimizer warranty and 12-year inverter warranty, extendable to 20 years
- SolarEdge products and components undergo rigorous testing, and have been evaluated in accelerated life chambers
- Reliability strategy includes proprietary application specific ICs (ASIC)

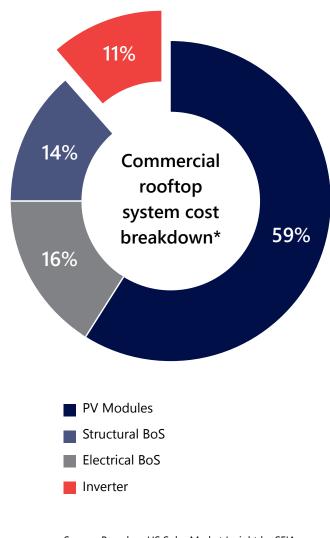


The Importance of Inverter Selection

Inverters account for only 11% of the system cost but:

- Influence up to 27% of system cost (also eBoS)
- Are the "brains" of the system and manage 100% of system production
- Control O&M expenses through PV asset management solutions

Inverter selection is therefore critical for the long-term financial performance of a PV system as it can maximize energy production and reduce lifetime costs.

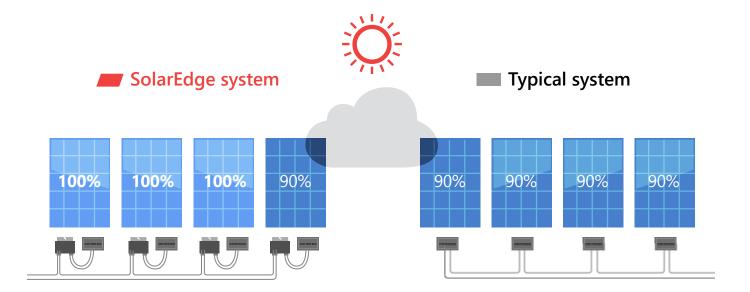


Source: Based on US Solar Market Insight by SEIA and Wood Mackenzie, September 2021

Increased Revenue

More energy from each module

In a PV system, each module has an individual maximum power point. Differences between modules are unavoidable in commercial installations. With traditional inverters, the weakest module reduces the performance of all modules. With SolarEdge, each module produces at its maximum ability at all times, ensuring greater energy yield from the entire system.



- Generates maximum power from each module
- Modules are monitored individually. More overall energy is produced by the PV system

- Weak modules reduce the performance of all modules in the string or are bypassed
- Power losses due to module mismatch

Power losses can result from multiple factors, including:

Manufacturing tolerance mismatch

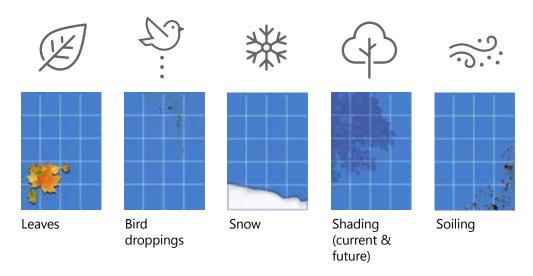
The warranted output power range for PV modules received from a manufacturing plant may vary greatly. A standard deviation of ±3% is sufficient to result in ~2% energy loss.



Guaranteed power output from module manufacturers 0~+3%

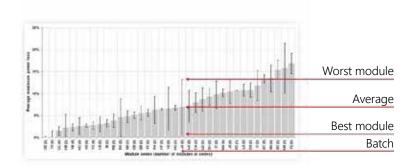
Soiling, shading and leaves

Module soiling, from dirt, bird droppings or snow, contributes to mismatch between modules and strings. While there may be no obstructions during site design, throughout a system's lifetime, a tree may grow or a structure may be erected that creates uneven shading.

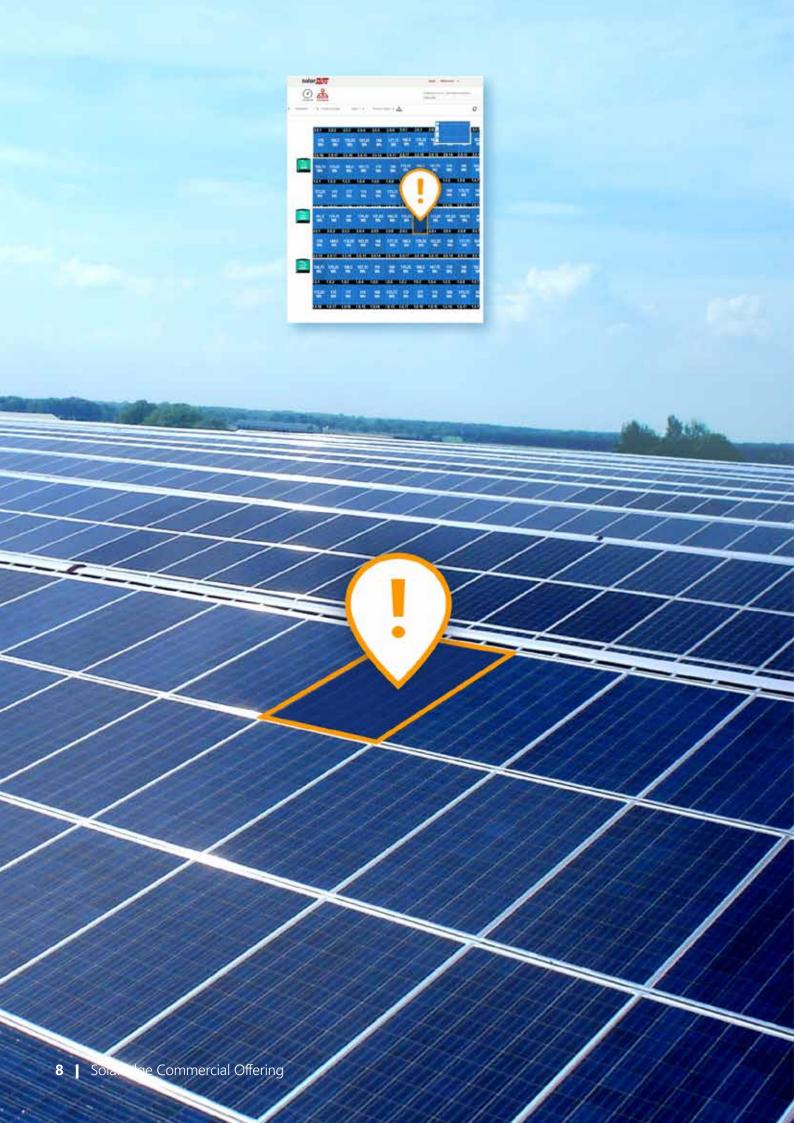


Uneven module aging

Module performance can degrade up to 20% over 20 years, however, each module ages at a different rate, causing aging mismatch, which increases over time.



Source: A. Skoczek et. al., "The results of performance measurements of fieldaged c-Si photovoltaic modules", Prog. Photovolt: Res. Appl. 2009; 17:227-240



Advanced Asset Management

Full visibility of your system's performance

- **■** Full visibility into your assets through module-level monitoring free for 25 years
- Automatic alerts on system issues, pinpointed on a virtual site map

Anytime, anywhere

Complete system status on your mobile device (iOS or Android)

Future compatibility and warranty

- 25-year Power Optimizer warranty; 12-year inverter warranty; Low cost warranty extension to 20 years
- A variety of module models can be used for future replacement and extension
- ▼ For agricultural areas products are certified for ammonia resistance

For system lifetime

- Automatic performance reports
- Remote troubleshooting and enhanced maintenance capabilities





Advanced Safety

With millions of photovoltaic (PV) systems installed worldwide, this technology is designed to be relatively safe and reliable. However, as traditional PV installations can reach voltages as high as 1,500VDC, precautions should be taken to ensure the safety of people and assets. With traditional inverters, shutting down the inverter or the grid connection will terminate current flow, but DC voltage in the string cables will stay high for as long as the sun is shining. In addition, electrical arcs, which can result in a fire, create a threat to people and assets in the vicinity of the PV system.

SolarEdge provides a holistic safety solution designed to mitigate electrocution and fire risks.

SafeDC™

SafeDC™ is a built-in module-level safety feature which minimizes electrocution risk.

To maintain string voltage below risk levels, Power Optimizers are designed to automatically switch into safety mode, in which the output voltage of each module will be reduced to 1V in either of these cases:

- During installation, when string is disconnected from the inverter, or the inverter is turned off
- During maintenance or emergency, when the inverter or AC connection is shut down

The SolarEdge SafeDC™ feature is certified in Europe as a DC disconnect according to IEC/EN 60947-1 and IEC/EN 60947-3 and to the safety standards VDE AR 2100-712 and OVE R-11-1.

Rapid shutdown capabilities

SolarEdge's optional rapid shutdown feature supports fast DC discharge to safe voltage levels within just 30 seconds, for even greater protection.

Arc fault detection and interruption

SolarEdge inverters have a built-in protection designed to mitigate the effects of some arcing faults that may pose a risk of fire, in compliance with the UL1699B arc detection standard.

SolarEdge Sense Connect

Patented SolarEdge technology that prevents arcs by monitoring S-Series Power Optimizers' connectors, identifying improper connections and possible malfunctions from connector wear and tear.

Built-in temperature monitoring

Thermal sensors proactively monitor and detect faulty wiring and connectors that can potentially cause overheating connections or electric arcs.

Favored by global solar insurance companies

SolarEdge's multi-layered, holistic safety approach make it a favored PV solution of worldwide solar insurance companies. It also meets leading property insurance company FM Global's DS 1-15 engineering requirements.

Note: Safety functionalities described above may vary between different inverter models and firmware versions, and are applicable when the inverter is turned on



51.7GW of Systems Shipped Worldwide

Ground mounts



Industrial rooftops



Farms and agriculture













Public buildings













Carports, floating systems and safety













Ground Mounts



Turkey, 5MW



France, 2.7MW Ground and roof mounted



masa



Denmark, 2MW Ground and roof mounted





FL, United States, 1MW



Industrial Rooftops



The Netherlands, 2MW





United Kingdom, 1.63MW

Western International Market, London, The installation won the 2015 Annual European Energy Service Awards for 'Best Energy Project'





NJ, United States, 525kW





Australia, 100kW



Agricultural Rooftops



Denmark, 1.22MW





Israel, 700kW





The Netherlands, 303kW





South Africa, 250kW



Carports



The Netherlands, 3MW 39 Electric Car Charging Stations





Germany, 1MW Carport of TSG Hoffenheim Stadium, Sinsheim

WIRS GL



OH, United States, 335kW Honda Motorcars, Ohio





United Kingdom, 150kW

John Lewis car park, Exeter



Schools



Singapore, 1MW



American School



United Kingdom, 250kW

United Kingdom, 250kW





The Netherlands, 303kW
De Meerwaarde, Barneveld





United States, 756kWFarmington Central School District #265, Illinois



Fire Stations



United Kingdom, 700kW on 15 sites





"Fire precautions and revenue reduction are important factors for all Hampshire County Council projects. We have standardised our Solar PV solution for the whole estate in order to isolate the PV energy in fire alarm events"

> Paul Roebuck MIET, Engineering Manager, Hampshire County Council



United States, 42kW

Putnam Lake Fire Department, New York

"I am truly proud of this installation, Putnam Lake Fire Department & New York State Solar Farm Inc. have set the standard of what is possible in a community that wants to take control of its energy future using quality products and a great local installer. The best part is that this fire station will be a training facility for other first responders about PV safety."

> Anthony Sicari Jr., CEO of New York State Solar Farm Inc.

Petrol Stations



South Africa, 20kW

Port Elizabeth



"Without SolarEdge's SafeDC™ technology, the installation would not have been approved and we would have missed out on this important business opportunity."

> Barry Davis, Director, Kwikelec



Israel, multiple 50kW

Petrol stations



"We have been working with the SolarEdge solution for commercial systems for a long time, and when we were asked as advisors for Dor Alon petrol stations to recommend a PV solution, SolarEdge was the obvious choice, not only for the added yields it provides, but also because of the comprehensive safety solution it offers, which is particularly important in this kind of installation."

> Eyal Baharav, Owner, Golan Solar

Health Care







South Africa, 100kW 3 NHC health care centers





United States, 220kW Kuakini hospital, Hawaii





United Kingdom, 32kW
Birds Hill nursing home



Floatovoltaic Systems







The Netherlands, 780kW

De Krim Holiday Resort, Texel Island



"De Krim Resort invested in a solar PV system to be environmentally friendly and generate our own electricity. Thanks to asset reuse, high performance, and a positive impact on water quality, the floating installation is expected to far exceed the estimated return on our investment."

> Iwan Groothuis, Managing Director, De Krim Resort



The Netherlands, 232kW

Everstekoog Sewage Treatment Plant, De Koog



"The use of floating solar PV at water treatment facilities that have available water bodies and need to use electricity for water treatment operations is gaining traction. The floating solar park at the Everstekoog water treatment site powers all public street lamps (LED) on Texel Island."

> Nicol Schermer, Manager, Texel4trading



United States, 386kW

Far Niente Winery, California

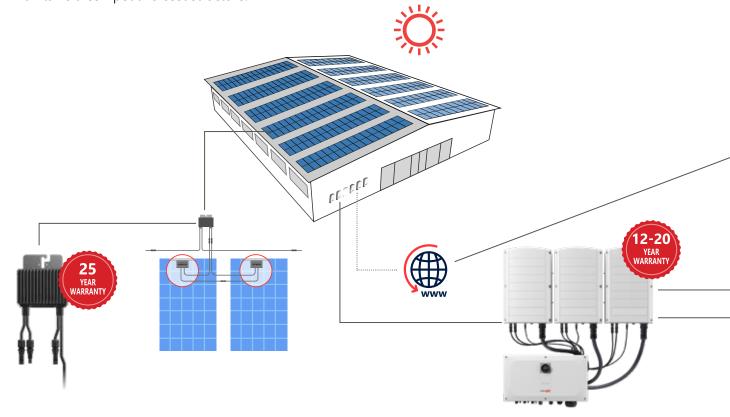


BLUE OAK ENERGY"

The 386kW installation, partially ground-mounted and partially floating on pontoons atop the winery's irrigation pond, has become a net-zero energy establishment. The floating system enables the winery to preserve nearly an acre of vineyard land, and helps to reduce the amount of water lost to evaporation by shading the previously uncovered pond.

Commercial System Diagram

The SolarEdge solution consists of inverters, Power Optimizers, and the Monitoring Platform. The technology provides superior power harvesting and module management by connecting Power Optimizers at the module level. The ability to connect two modules to just one Power Optimizer, combined with DC to AC conversion and grid interaction being centralized at a simplified PV inverter, maintains a competitive cost structure.

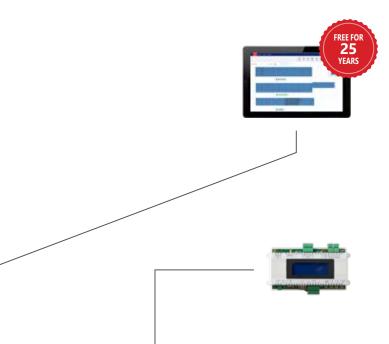


2:1 Power Optimizer configurations

- Module-level MPPT no mismatch power losses
- Strings of uneven lengths, modules on multiple azimuths and tilts
- Supports SolarEdge inverters SE15K and larger
- SafeDC™ automatic module-level safety shutdown
- SolarEdge Sense Connect avoids thermal issues via early detection of improper connections or malfunctions (S-Series models only)

15kVA - 120kVA inverters

- Specifically designed to work with Power **Optimizers**
- High efficiency
- Simple and reliable
- Easy to install
- Advanced safety features



Monitoring Platform

- Full visibility of system performance
- Access via browser or any Android, iOS smart phone or tablet
- Automatic performance and alert reports

Commercial gateway

Connection of multiple environmental sensors to analyse system performance



Performance monitoring

Calculate site performance ratio and measure environmental conditions, using environmental sensors.



Grid interaction

Supports power control, e.g. zero export limitation, local and remote active/reactive power control, inverter AC relay control for secondary grid protection; low voltage and frequency ride through



*Excluding China; Including China, #1 inverter company globally by revenues 2018-2021 and #2 in 2022. Source: IHS PV Market Tracker Q2 '23

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