



Commercial Offering for Solar Investors & System Owners



About SolarEdge

About us

In 2006, SolarEdge invented an intelligent inverter solution that has changed the way power is harvested and managed 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 consume energy will lead to a better future for us all



Bankability

- SolarEdge has been audited and approved by major banks and financial institutions for projects and funds 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

Global reach

- 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

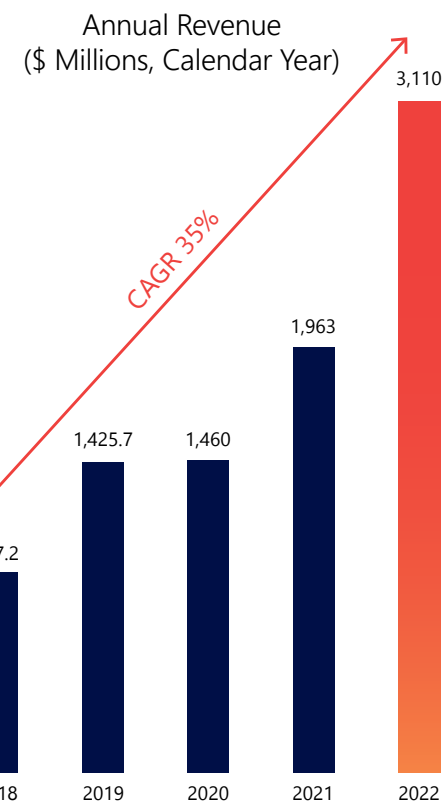


Award-winning technology



Power provided

- Over 5.2 million inverters, 47.9 GW, and more than 119.6 million Power Optimizers delivered worldwide
- SolarEdge's Monitoring Platform continuously tracks over 3.5 million installations across the globe



Corporate social responsibility

- As an industry leader in renewable energy technologies, SolarEdge strives to limit the harmful effects of traditional energy sources by promoting the spread of clean, sustainable energy around the world
- SolarEdge 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

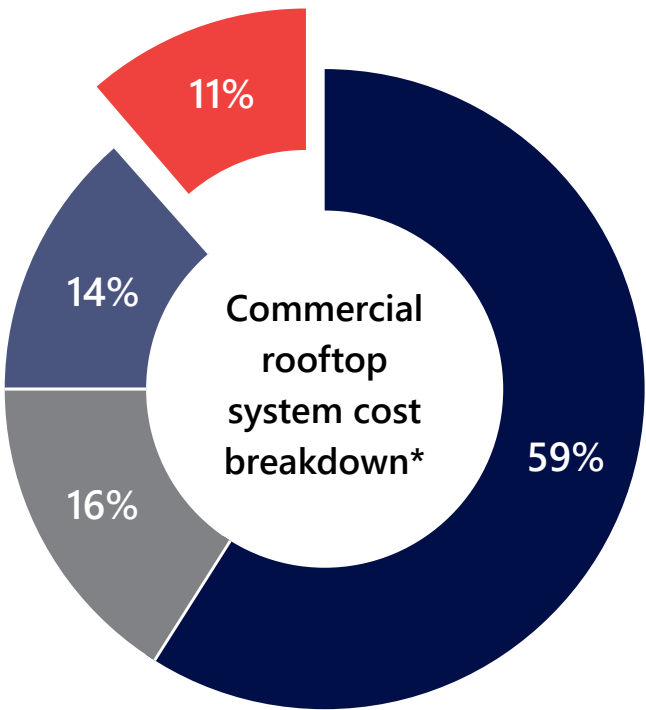
- 25-year Power Optimizer warranty and 12-year inverter warranty, extendable to 20 years
- SolarEdge products and components undergo rigorous testing, and have been evaluated in accelerated life chambers
- Reliability strategy includes proprietary application specific ICs (ASIC)



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 maximise energy production and reduce lifetime costs.



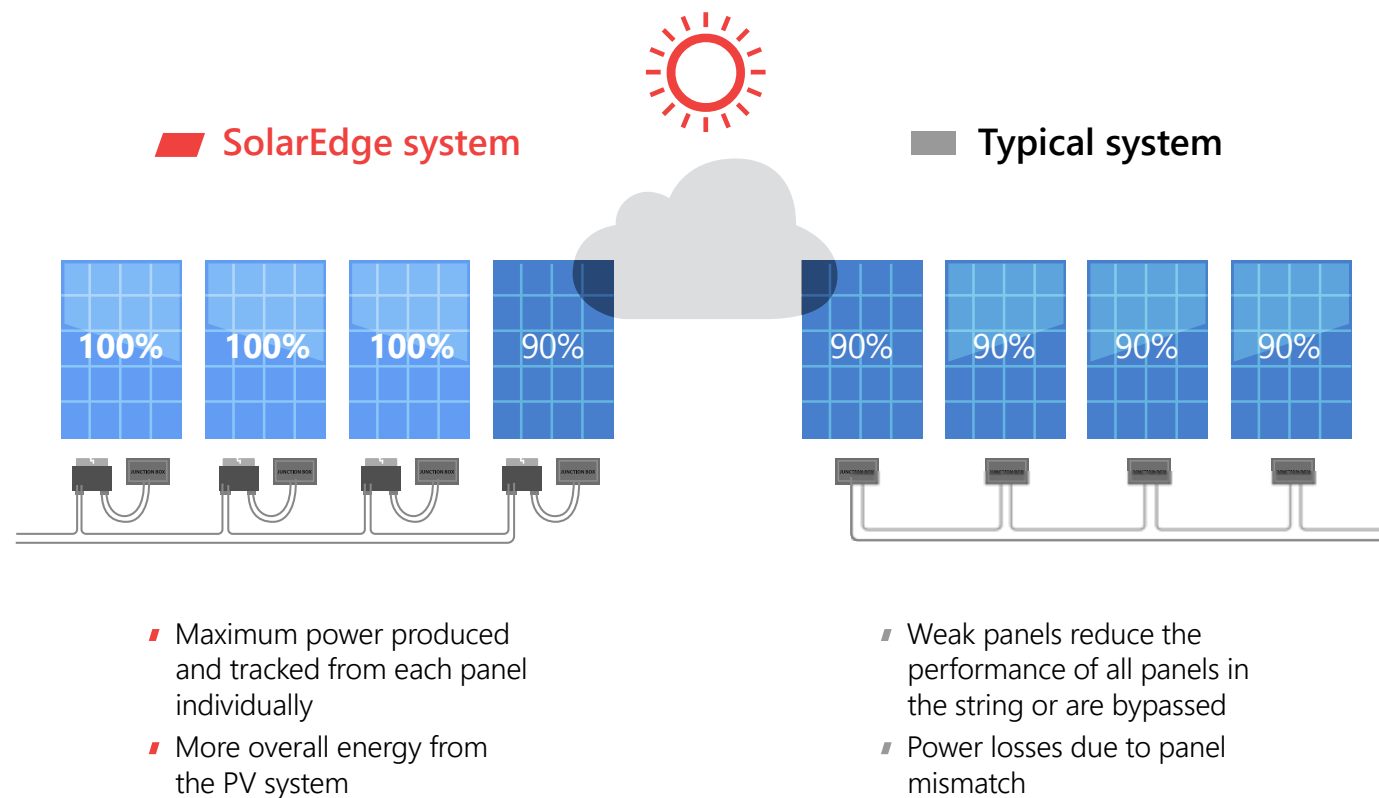
- PV Modules
- Structural BoS
- Electrical BoS
- Inverter

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

Increased Revenue

Maximum energy from each panel

In a PV system, each panel has an individual maximum power point. Differences between panels are unavoidable in commercial installations. With traditional inverters, the weakest panel reduces the performance of all panels. **With SolarEdge, each panel produces the maximum energy, and mismatch-related power losses are eliminated.**



Power losses can result from multiple factors, including:

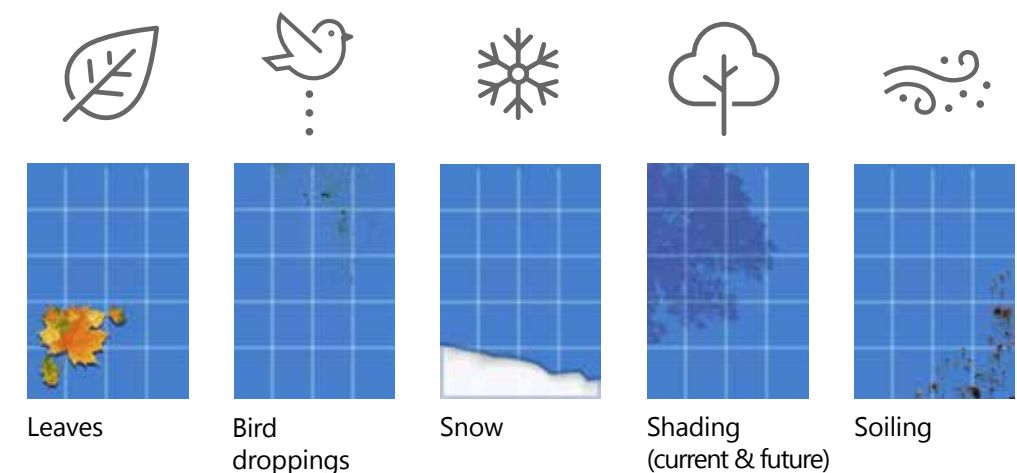
Manufacturing tolerance mismatch

The warranted output power range for PV panels received from a manufacturing plant may vary greatly. A standard deviation of $\pm 3\%$ is sufficient to result in $\sim 2\%$ energy loss.



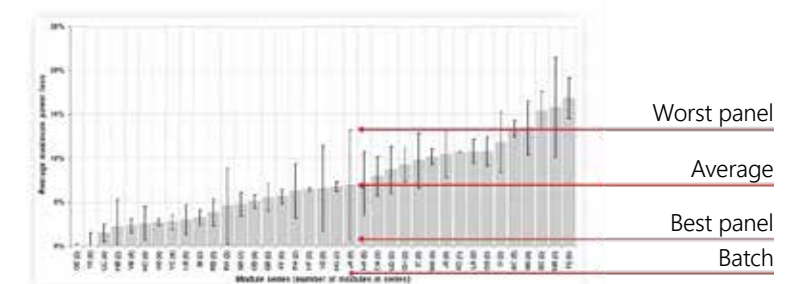
Soiling, shading and leaves

Panel soiling, from dirt, bird droppings or snow, contributes to mismatch between panels 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.

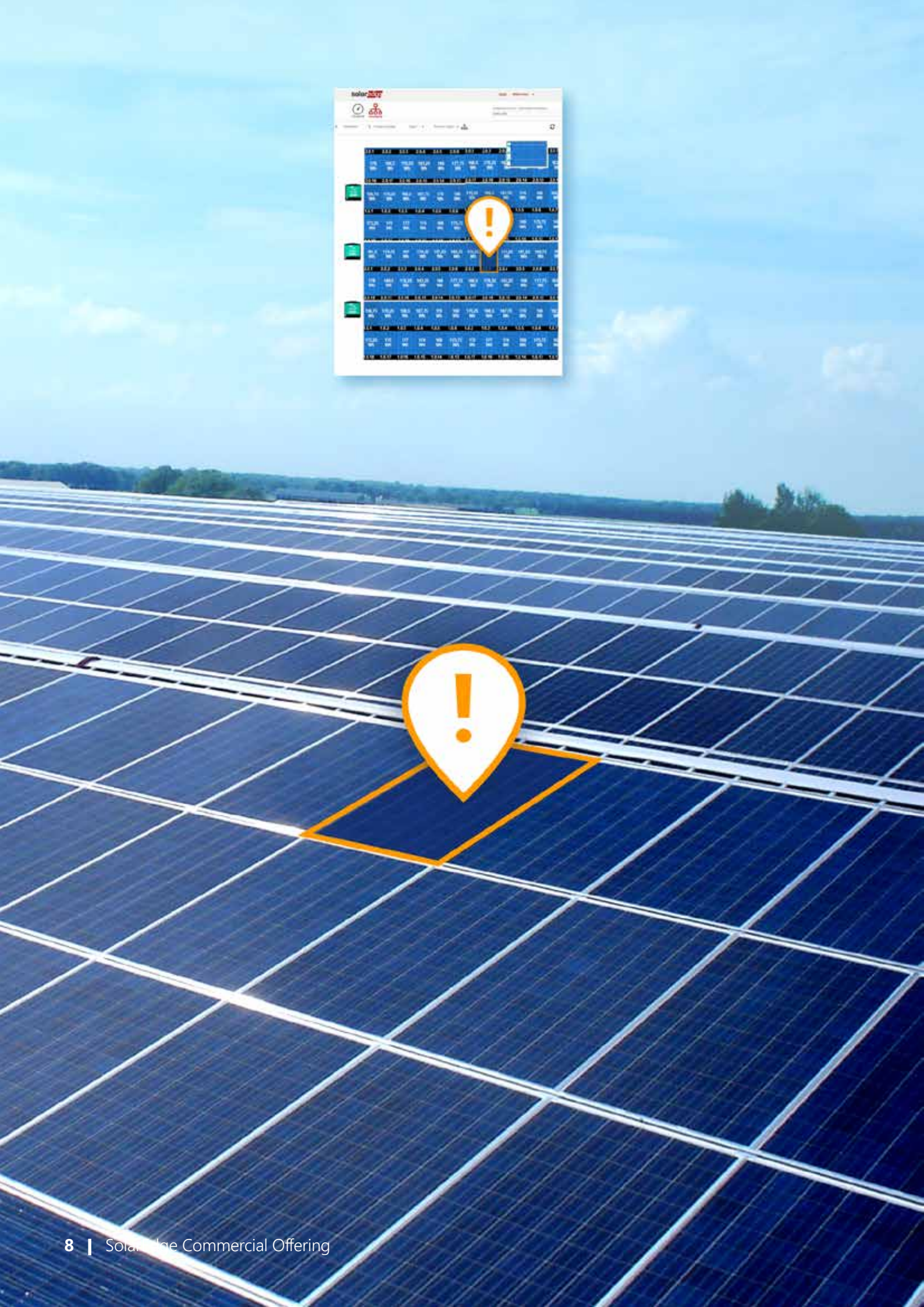


Uneven panel aging

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



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



Advanced Asset Management

Full visibility of your system's performance

- Full visibility into your assets through panel-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 panel 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





Superior 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 panel-level safety feature which minimises 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 panel 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 integrated into the system detect faulty wiring that can potentially cause 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 inverter is turned on

Watch our
Safety video



47.9GW of Systems Shipped Worldwide

Ground mounts



Industrial rooftops



Farms and agriculture



Public buildings



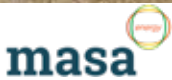
Carports, floating systems and safety



Ground Mounts



Turkey, 5MW



Denmark, 2MW

Ground and roof mounted



France, 2.7MW

Ground and roof mounted



FL, United States, 1MW



Industrial Rooftops



The Netherlands, 2MW

ZONNEGILDE
Duurzame energie op maat



Italy, 1.3MW

ELETRONORD



United Kingdom, 1.63MW

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

Sunstruck Energy



NJ, United States, 525kW

amberjack
solar energy

Agricultural Rooftops



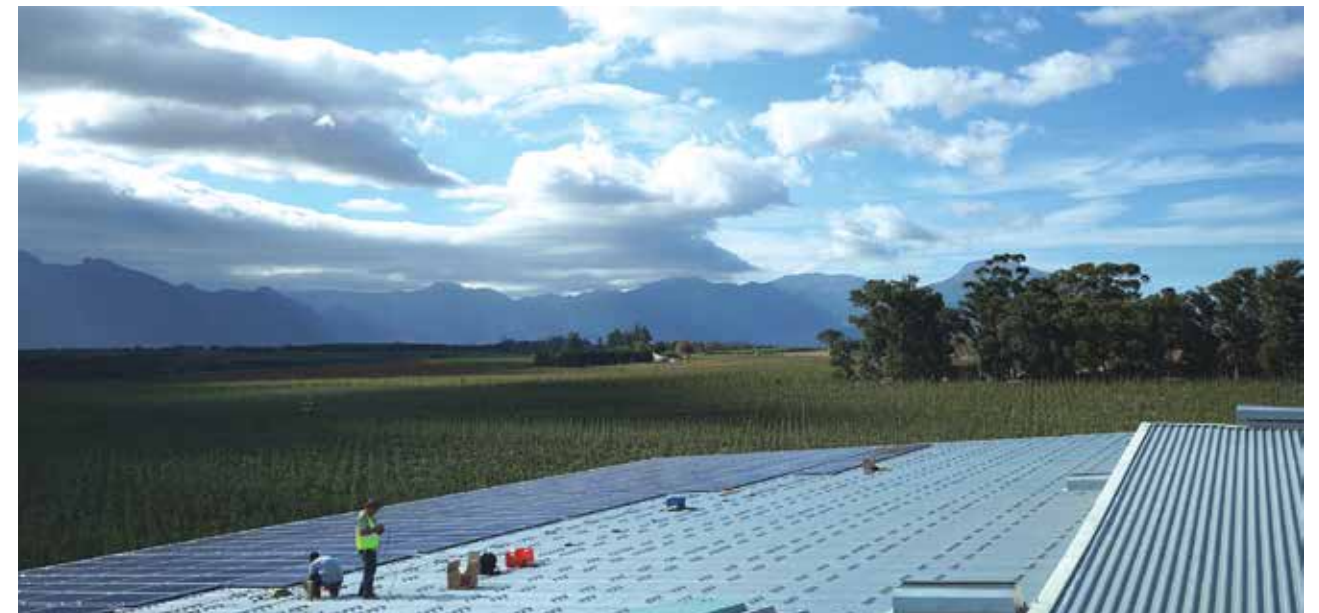
Denmark, 1.22MW



The Netherlands, 303kW



Israel, 700kW



South Africa, 250kW



Carports



The Netherlands, 3MW
39 Electric Car Charging Stations

FASTNED



OH, United States, 335kW
Honda Motorcars, Ohio

DOVETAIL
Solar and Wind



Germany, 1MW
Carport of TSG Hoffenheim Stadium, Sinsheim

WIRSOL



United Kingdom, 150kW
John Lewis car park, Exeter

SunGift
ENERGY

Schools



Singapore, 1MW
American School



The Netherlands, 303kW
De Meerwaarde, Barneveld



United Kingdom, 250kW
United Kingdom, 250kW



United States, 756kW
Farmington Central School District #265, Illinois



Fire Stations



United Kingdom, 700kW on 15 sites

Hampshire Fire and Rescue Service



"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



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



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



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

Eversteekoog 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 Eversteekoog water treatment site powers all public street lamps (LED) on Texel Island."

> Nicol Schermer, Manager, Texel4trading



United States, 386kW

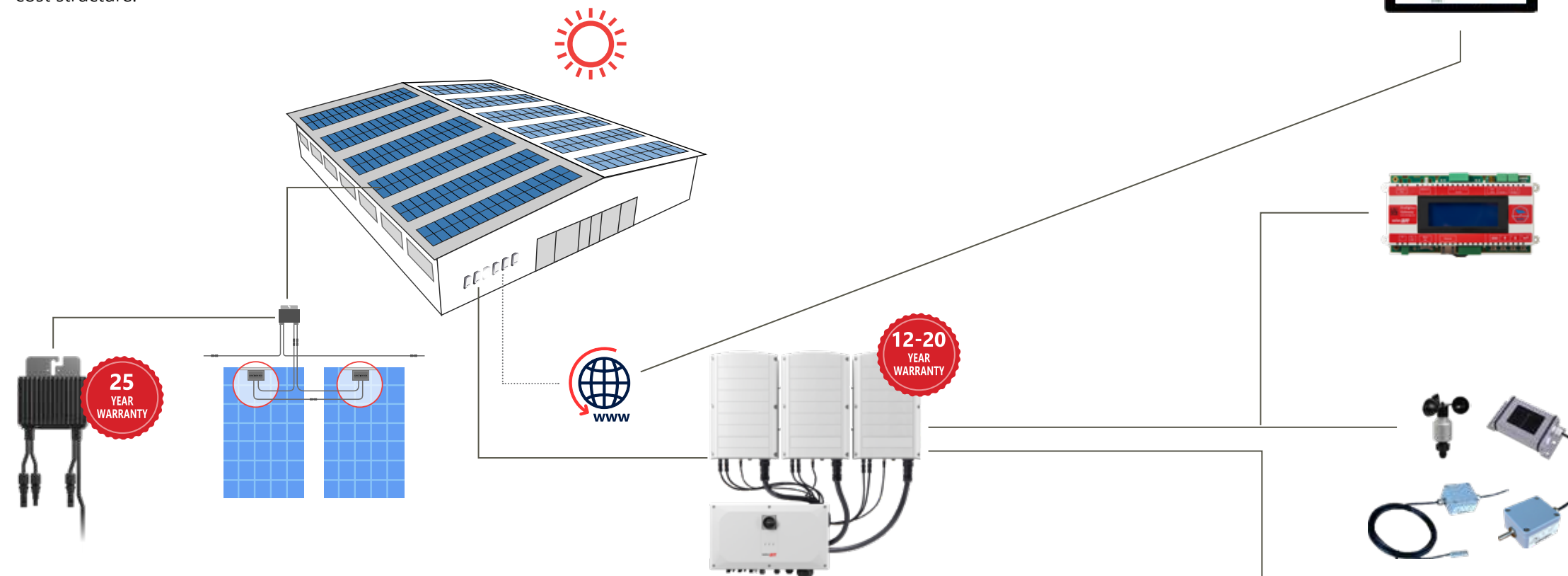
Far Niente Winery, California



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 a Monitoring Platform. The technology provides superior power harvesting and panel management by connecting Power Optimizers at the panel level. The ability to connect two panels to just one Power Optimizer, combined with DC to AC conversion and grid interaction being centralised at a simplified PV inverter, maintains a competitive cost structure.



2:1 Power Optimizer configurations

- Panel-level MPPT - no mismatch power losses
- Strings of uneven lengths, panels on multiple azimuths and tilts
- Compatible with SolarEdge inverters SE15K and larger
- SafeDC™ - automatic panel-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

Firefighter gateway

- Can be added to the PV system to provide centralised safety management
- Gives real-time indication of the system's DC voltage

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

UK Council Testimonials



"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, and are able to automatically isolate the PV energy outside of the building on the roof if a Fire Alarm event occurs. This ensures the internal electrical services can be safely turned off for fire fighting saving buildings quickly.

"Hampshire County Council can reassure the Fire Service that the building is safe for their activity using the fire alarm interface and the Firefighters gateway supported with diagrams of where the PV is fitted.

"The interfacing of the Inverters to standby generators is critical in the event of power supply failure where a generator may start and electrically damage inverters in both generator and PV.

The online monitoring and ability to view individual panels means that PV performance and yield can be clearly seen, and maintenance (if needed) targeted at the right time. Hampshire County Council haven't cleaned any panels yet, we check for the next rain cloud !

If the PV should be accidentally turned off or stop working, we get an Email so we can get the PV generating again fast. The "on line" interface also provides the ability to view the generation meter reading saving another phone call or a visit.

Low maintenance and staff support means low revenue cost and more generation efficiency".



"Wycombe District Council installed 99.9 kWp of solar panels on our Council Offices with SolarEdge Technology in October 2015. The system has been running successfully since that date, without any problems. The major benefit is the on-line monitoring system that allows us to monitor the performance. An added safety benefit that is really important to us is the ability to shut down the system to a safe voltage for maintenance and firefighting purposes".




"Bridgend County Borough Council have specified SolarEdge on a number of projects which include their Civic Centre Offices in the centre of Bridgend and a number of In House designed Primary Schools under the 21st Century for Schools Programme.

"When specifying Photovoltaic systems the designer chose to include Power Optimizers connected to the panels which would alleviate the risks associated with generating DC voltages, maximise the systems efficiencies whilst offering remote monitoring which will assist in the systems future operation and maintenance".



"Safety is of high priority when it comes to public buildings that Exeter City Council are responsible for, this is also the case when connecting Solar PV. Sungift Solar, who have installed all our PV systems, specify SolarEdge inverters which provide exceptional quality and safety benefits. Including, a 12 year warranty as standard, improved output and panel optimisation, excellent Monitoring Platform and importantly the ability to significantly reduce the risks of electrocution. The Safety benefits, including being able to Isolate the high DC voltage coming from the solar panels, are very important to us when it comes to safety of the public. We are reassured and confident by having SolarEdge we can isolate the DC coming from the solar panels on the roof at an accessible point. We take safety very seriously as solar installations become more frequent. Exeter City Council chooses SolarEdge for the added performance and the monitoring system that's included. This reduces maintenance costs for the life of the system which can be expensive, and together with the safe DC function makes SolarEdge our preferred choice of inverter selection".



SolarEdge is a global leader in smart energy, delivering innovative commercial and residential solutions that power our lives and drive future progress. Leveraging world-class engineering and worldwide experience, SolarEdge developed a ground-breaking intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. As a result of this and other innovations, today SolarEdge is the world's #1 solar inverter company in revenue with millions of systems installed in over 140 countries, amounting to 43GW capacity. Over 50% of Fortune-100 companies have SolarEdge Technologies on their rooftops and the company (SEDG) is traded on Nasdaq and listed on the S&P 500.

 SolarEdge
 @SolarEdgePV
 @SolarEdgePV
 SolarEdgePV
 SolarEdge
 infoUK@solaredge.com

solaredge.com

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