solaredge

Commercial Solution Overview

SolarEdge Fact Sheet

About us

In 2006, SolarEdge revolutionised 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.

Award-winning technology

Product reliability

- 25-year power optimiser warranty, 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 integrated circuits (ASIC)

Global outreach

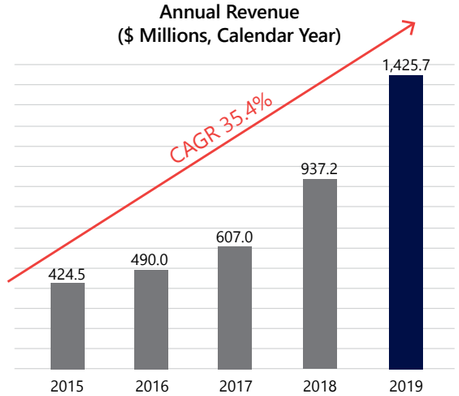
- Systems installed in over 130 countries across five continents
- Sales via leading integrators and distributors
- Follow the sun call centers
- Local teams of sales, service, marketing, and training experts
- Global manufacturing capabilities with tier 1 electronic manufacturing service companies

Bankability

- Approved by major banks and financial institutions worldwide
- SolarEdge (SEDG) is traded on NASDAQ
- A global leading PV inverter manufacturer, due to strong and stable finances combined with cutting-edge technology

Shipping since 2010

- Over 2 million inverters and over 50 million power optimisers shipped worldwide
- SolarEdge's monitoring platform continuously tracks over a million of installations across the globe



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.

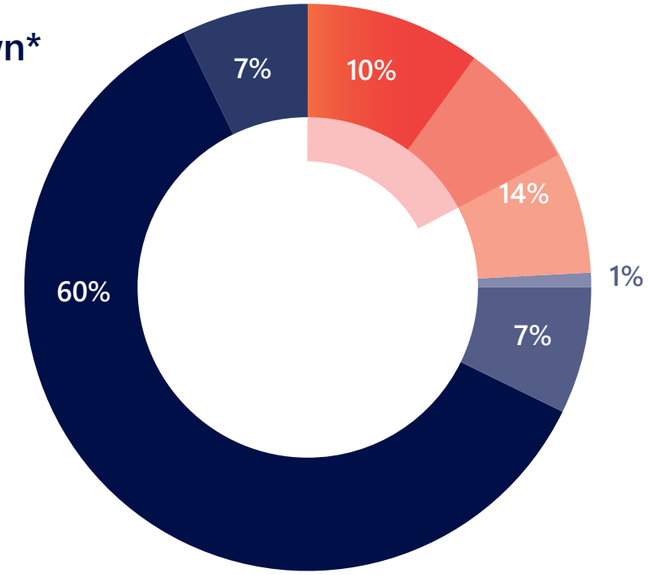
The Importance of Inverter Selection

Commercial rooftop installation cost breakdown*

Inverters account for less than 10% of the system cost but,

- Manage 100% of system production
- Influence up to 20% of system cost
- Control O&M expenses through PV asset management solutions

Therefore, the inverter selection is critical for the long-term financial performance of a PV system as it can maximise energy production and reduce lifetime costs.



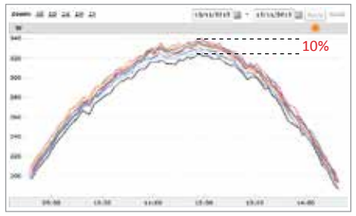
* Based on SolarEdge market analysis, assuming total cost of ~€1/Wp

Maximum Energy Yield

Harvest more power from each module

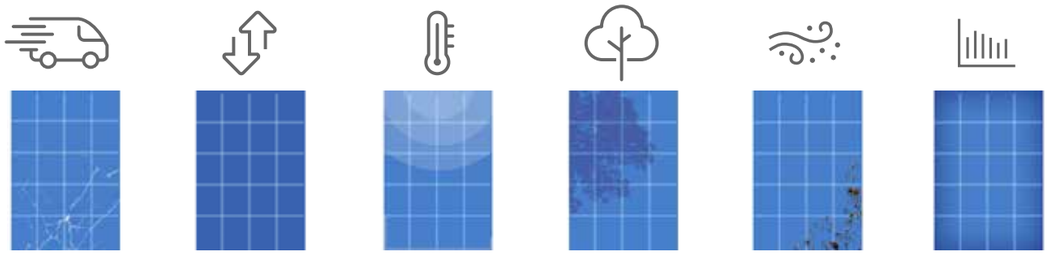
SolarEdge mitigates power losses due to mismatch between modules for maximum power generation from each module. With SolarEdge, weaker modules do not affect the strong ones.

Energy losses due to module mismatch



Screenshot from the SolarEdge monitoring platform, showing power curves of 10 adjacent modules in a string with 10% mismatch between highest and lowest performing modules.

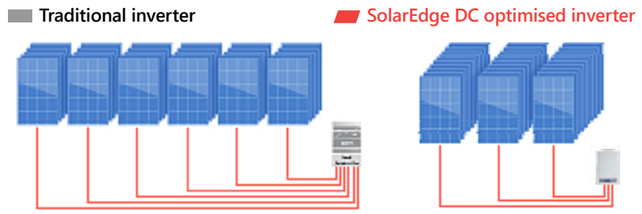
Common reasons for module performance mismatch



Cost saving by design

Save 50% on electrical BoS with longer strings

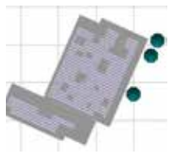
27-60 modules, up to 15kW per string



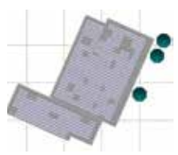
More energy by design

Increase your system capacity with more modules on the roof

Flexible site design > More modules on the roof > More power



Traditional inverter | 149.5kW DC



SolarEdge | 200kW DC
34% more power

Improved O&M, Advanced Safety

Cost-saving maintenance

- Free real-time remote monitoring at the module, string, and system levels, for 25 years
- Comprehensive analytics tracking and reports of energy yield, system uptime, performance ratio, and financial performance
- Pinpointed and automatic alerts for immediate fault detection, accurate maintenance, and rapid response
- Accurate and remote troubleshooting for fast and efficient resolution with minimal and shortened onsite visits
- The consumption monitoring feature shows data about electricity consumption, PV production, and self-consumption

Future compatibility and warranty

- Low cost inverter replacement out of warranty
- Future module compatibility (replacement and extension)
  - New modules can be utilised in the same string with old ones

SafeDC™

The SolarEdge system provides a superior safety solution for both electrocution and fire risks.

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

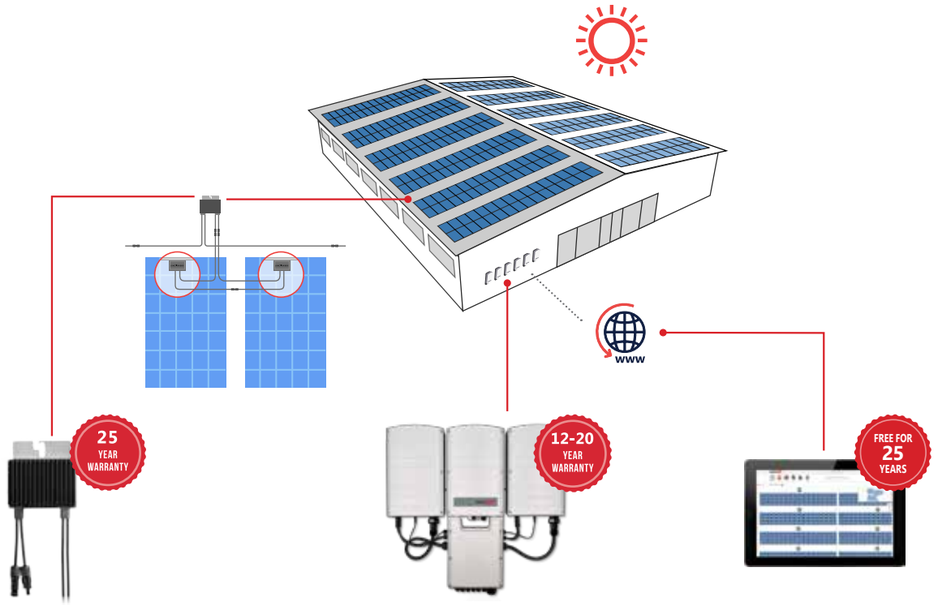
To maintain string voltage below risk levels, power optimisers are designed to automatically switch into safety mode, in which the output voltage of each module will be reduced to 1V in either of these cases:

- 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
- When the thermal sensors of the power optimisers detect a temperature above 85 ˚C

Arc fault detection and interruption

SolarEdge inverters have a built-in protection designed to detect and interrupt arcs that may pose a risk of fire, in compliance with the UL1699B arc detection standard. In addition to manual restart, a mechanism for auto-reconnect can be enabled during system commissioning.

Commercial System Diagram



2:1 or 4:1 power optimiser configurations

- Module-level MPPT - no mismatch power losses
- Strings of uneven length, modules on multiple azimuths and tilts
- SafeDC™ - designed for automatic module-level safety shutdown

15kW-100kW three phase inverters

- Specifically designed to work with power optimisers
- Superior efficiency
- Easy installation, including 2-person install for large capacity models
- Built-in communication gateway
- Simple, step-by-step inverter activation and commissioning with the Inverter SetApp mobile application

Monitoring platform

- Full visibility of system performance
- Remote, module-level troubleshooting

Perfomance monitoring

- Calculate site performance ratio and measure environmental conditions, using environmental sensors or a satellite-based service

Comprehensive Service Suite

SolarEdge supports you throughout your PV project life cycle. We provide the tools and services to help you grow your business with us.

Project design & pre-sale

Project execution

Operation & maintenance

1MWp Ground Mount System Comparison

Comparison of a 1MWp SolarEdge solution to an identical system with a traditional string inverter

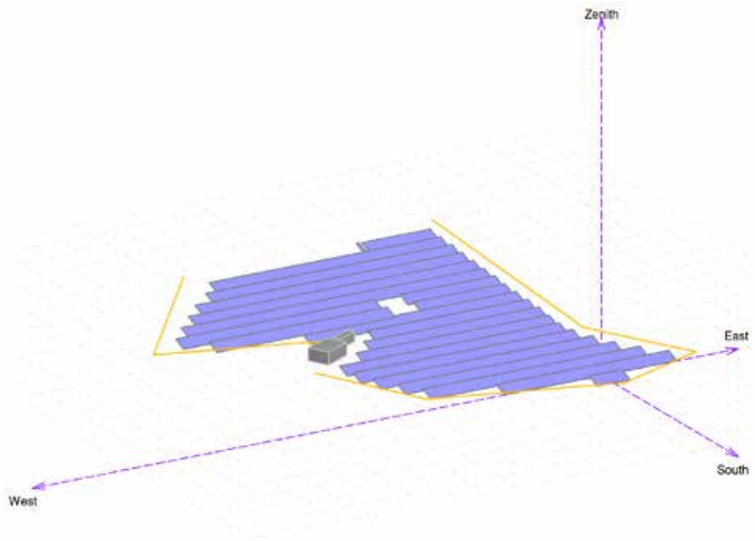
The system, in Munich, Germany, comprises 4,050 × 260Wp modules. One system was designed with 11 × SE82.8K SolarEdge inverters and 2,025 × P600 power optimisers in a 2:1 configuration. The second system was designed with 18 × 50kW traditional string inverters.

The SE82.8K model is a three phase inverter with synergy technology, combining large capacity with reduced installation time and cost. The inverter is based on three small and lightweight units; one primary unit easily connected to two secondary units. Up to 31 inverters can be configured directly from one master inverter for fast commissioning.

Energy comparison

PVsyst was used to simulate the yield of both systems in year 1 and year 20. The SolarEdge advantage is growing with time due to uneven module aging which increases mismatch between modules.

	Traditional String Inverter	SolarEdge System	SolarEdge Advantage
PVsyst year 1 yield (MWh)	1,159	1,182	2%
PVsyst year 20 yield (MWh)	1,036	1,090	5.2%



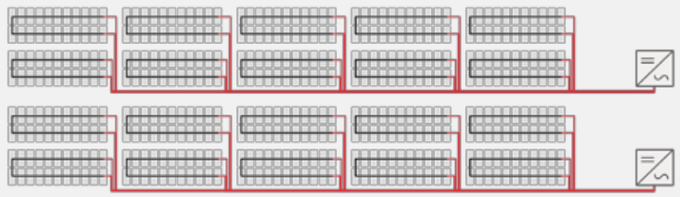
BoS comparison

	Traditional String Inverter	SolarEdge DC Optimised Inverter
DC power (kW)	1,053	1,053
AC power (kW)	900	910.8
Modules (260W, 72-cell)	4,050	4,050
Inverters	18	11
No. of strings	180	99
Modules per string	22/23	40/42
DC cable CU 1 × 6mm² (m)	7,347	5,244
MC4 connectors (1 pair)	360	198
AC cable NA2XY 4 × 95mm² (m)	-	747
AC cable NA2XY 4 × 70mm² (m)	1,349	-
Datalogger	1	-
BoS cost	100%	62%
BoS cost saving*		0.4 c/w

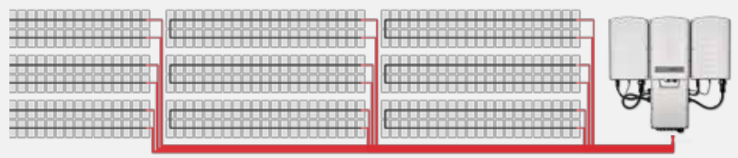
* Estimated saving on BoS components based on typical market prices in €

Cabling comparison

Traditional inverter cabling diagram | Total of 180 strings



SolarEdge cabling diagram | Total of 99 strings



Included DC cables Additional DC cables

Featured Indian References

202kW, Puducherry

2.2MW, Rajasthan

990kW, Karnataka

96kW, Tamil Nadu

SolarEdge is a global leader in smart energy technology. By leveraging world-class engineering capabilities and with a relentless focus on innovation, SolarEdge creates smart energy solutions that power our lives and drive future progress.

SolarEdge developed an intelligent inverter solution that changed the way power is harvested and managed in photovoltaic (PV) systems. The SolarEdge DC optimised inverter maximises power generation while lowering the cost of energy produced by the PV system.

Continuing to advance smart energy, SolarEdge addresses a broad range of energy market segments through its PV, storage, EV charging, UPS, and grid services solutions.

SolarEdge
@SolarEdgePV
@SolarEdgePV
SolarEdgePV
SolarEdge
infoIND@solaredge.com

solaredge.com

Cautionary Note Regarding Market Data and Industry Forecasts: This brochure may contain market data and industry forecasts from certain third-party sources. This information is based on industry surveys and the preparer's expertise in the industry and there can be no assurance that any such market data is accurate or that any such industry forecasts will be achieved. Although we have not independently verified the accuracy of such market data and industry forecasts, we believe that the market data is reliable and that the industry forecasts are reasonable.