

# SolarEdge Commercial PV Solutions

## Get More from Your Investment





# Put Your Investment to Work

Greater returns are why our clients choose SolarEdge as their Commercial partner

## Global Reach with Australian Specialization

SolarEdge (NASDAQ: SEDG) is a global leader in smart energy. There are millions of SolarEdge systems installed in 140 countries, representing over 43.6GW of clean solar power. SolarEdge revolutionised sustainable energy with a ground-breaking intelligent inverter solution that decreases energy costs while maximising energy production.

## 360° Support

From project design through to commissioning and O&M, SolarEdge is here to help you grow your business all across Australia. Our support centres, service fleet, and tools are available around the clock.

## Corporate Social Responsibility

SolarEdge is committed to a sustainable world and is in full compliance with international standards on quality and control, ethical conduct, and environmental protection.

Read our [2022 Sustainability Report](#).

## Making a World of Difference

SolarEdge Monitoring Platform continuously tracks more than 3.3 million installations across the globe

Over **1.5GW** of Australian SolarEdge sites

**5,285** employees worldwide

Systems installed in **140 countries**

Diversified global manufacturing capabilities

**476** awarded patents

**479** additional patent applications

**> 50%** of **Fortune 100** companies use SolarEdge systems

## Our Fields of Vision



Carports



Retail/Warehouse/Data Centers



Ground mount



Agriculture



Schools/Universities



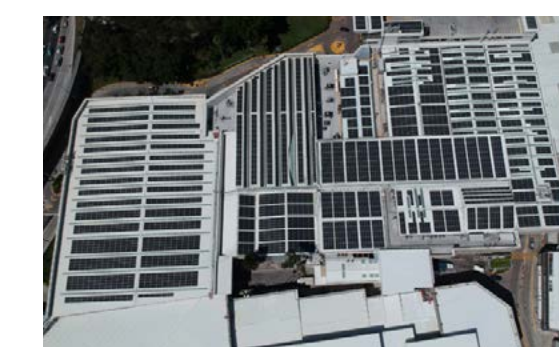
Healthcare



Government



Floating Systems



Big Box Stores

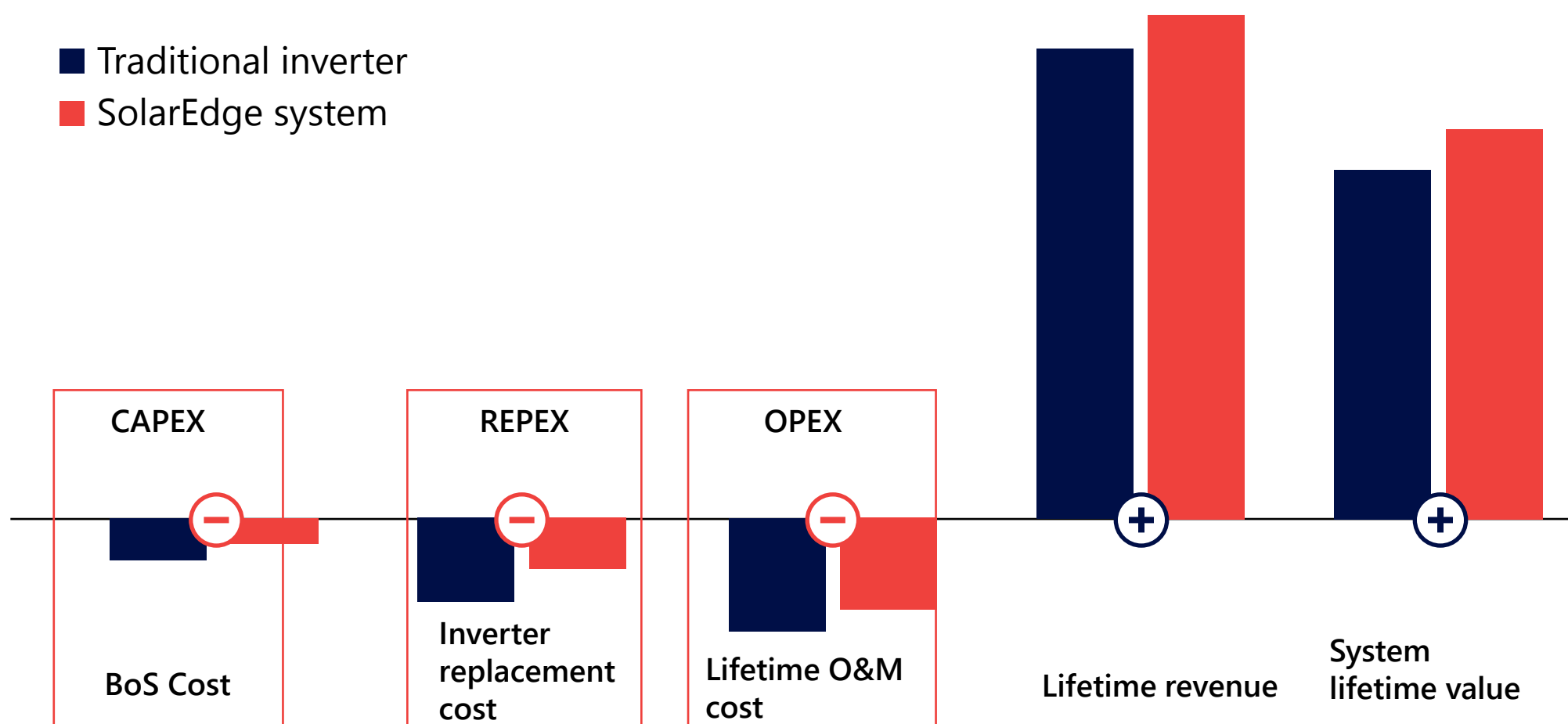
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## System Lifecycle Value

Through saving in BoS (Balance of System) costs, inverter replacement costs over the system lifetime, and Operation & Maintenance (O&M) costs along with greater yield performance, the SolarEdge solution offers higher value to the customers during the asset lifetime.

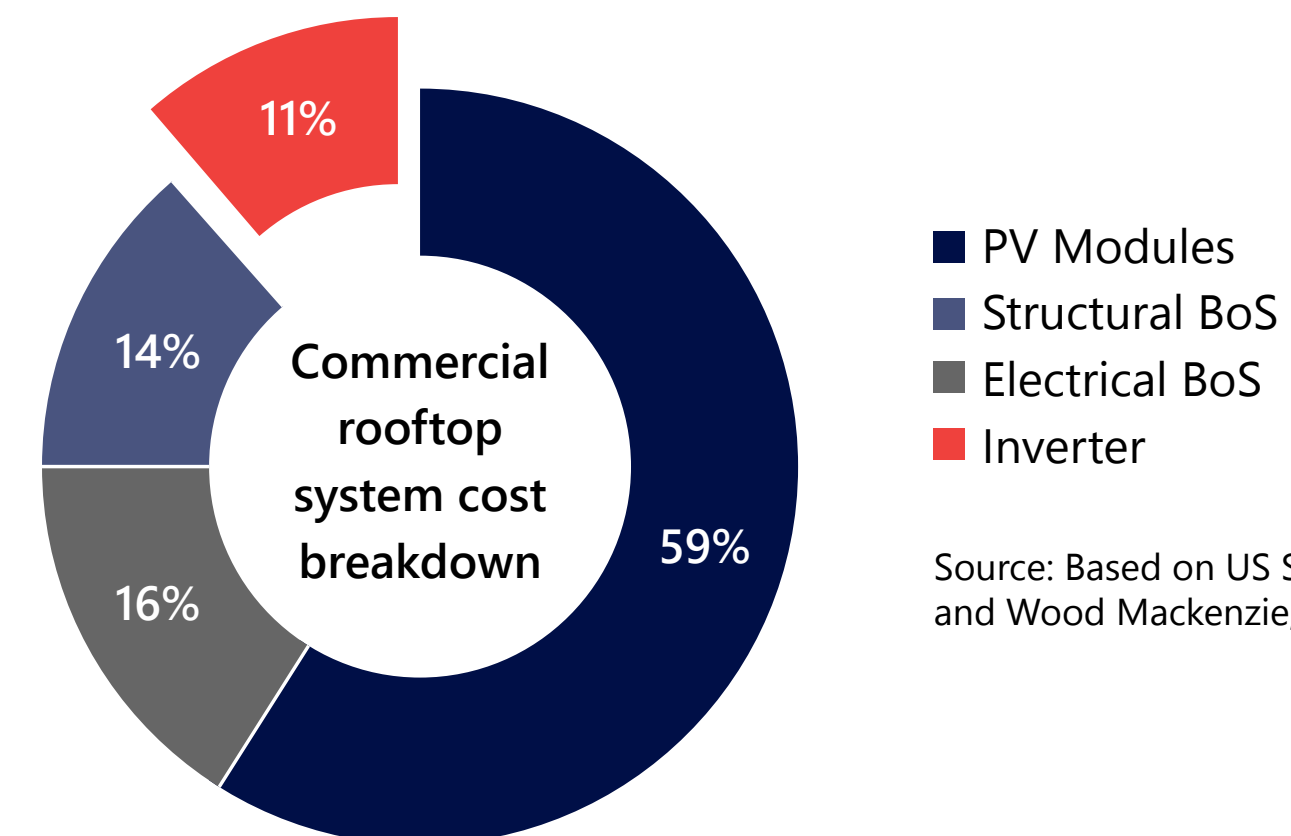


## The Importance of Inverter Selection

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

- / Influence up to 27% of system cost (also eBoS)
- / Are the “brain” 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. This becomes more relevant for the portfolio-level solar PV roll-out.



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

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# Produce More Energy by Minimising Panel Mismatch

Unavoidable panel-level mismatch-related power loss occurs when PV panels in a string have different Maximum Power Points (MPPs). Arising from a variety of sources, the mismatch decreases the energy yield of the entire string. Ongoing panel mismatch can affect the performance of a PV system. There are two main causes that contribute to this challenge.

## Soiling and Shading

Module soiling from dirt, bird droppings or leaves, contributes to mismatch between panels and strings. In addition, 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, which causes aging mismatch.

With traditional string inverters, weak panels reduce the performance of all panels in the string or are bypassed. With the SolarEdge DC optimised inverter solution and the panel-level maximum power point tracking (MPPT), current and voltage are adjusted at the individual panel level resulting in more energy from the PV system throughout its lifetime.



# On the Cutting Edge of Safety

The protection of people and property is our number one priority. By attaching our Power Optimisers to each solar panel, EPCs, installers and O&M personnel can pinpoint, and resolve issues at any point along a string with surgical precision. This enables a much more comprehensive view than most conventional systems, along with an enhanced ability to remotely diagnose and troubleshoot issues.

## Favored by Leading Insurers

SolarEdge's built-in PV safety suite minimises risks and surpasses many of the most stringent international safety standards. This added financial security makes our technology favored by global solar insurance companies, and also meets FM Global's DS 1-15 engineering requirements.

**A 360° safety solution built on three main foundations:**



### Prevention

- / SolarEdge Sense Connect
- / Built-in temperature monitoring



### Detection

- / Arc fault prevention
- / Panel-level monitoring



### Mitigation

- / SafeDC™
- / Rapid Shutdown

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## Learn more about our built-in safety features:



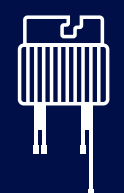
### SafeDC™

Automatically reduces the system's DC voltage to touch-safe DC levels during grid failures or inverter shutdowns, always within minutes.



### Rapid Shutdown

Helps conductors discharge at safe voltage levels within 30 seconds. Mandatory in the US in accordance with NEC 2014, 2017 and 2020. Also mandatory in developing countries such as Thailand and the Philippines.



### SolarEdge Sense Connect

Monitors Power Optimisers' connectors, identifying improper connections and possible malfunctions for early detection and mitigation of arc risks.



### Arc Fault Prevention

Detects and terminates an electric arc, through automatic inverter shutdown.



### Built-in Temperature Monitoring

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



### Panel-Level Monitoring

Sends automatic notifications on system issues, preventing potential safety risks.

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# Benefits of Panel-Level Monitoring and Control

Through early-warning alerts at the panel and system level, system owners and operators gain the comprehensive ability to understand and resolve any issue without rolling a truck. Reports of performance loss or safety risks throughout the system lifetime enables remote, preventative maintenance well in advance of a significant event.



## Granular Visibility

Full visibility of asset performance through panel-level monitoring



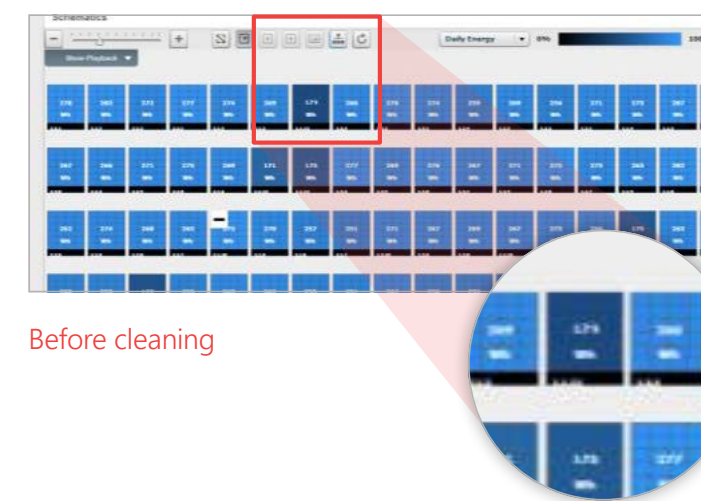
## Remote Troubleshooting

Remote troubleshooting reduces site visits and time spent onsite

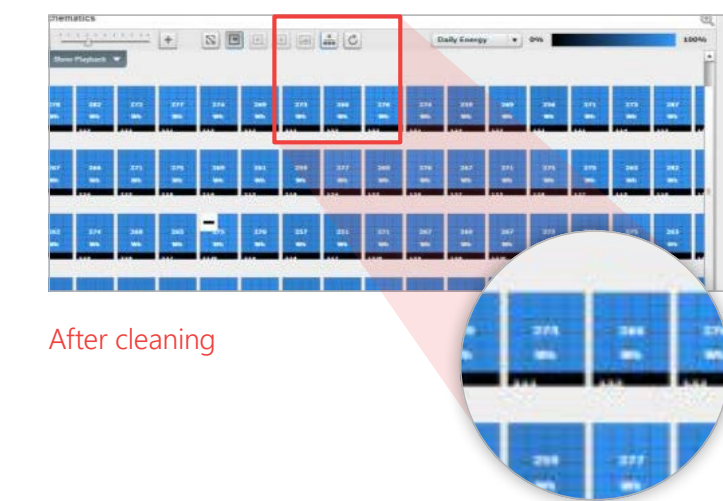


## Alerts

Automatic pinpointed alerts simplify the maintenance of large-scale PV sites and enables rapid response

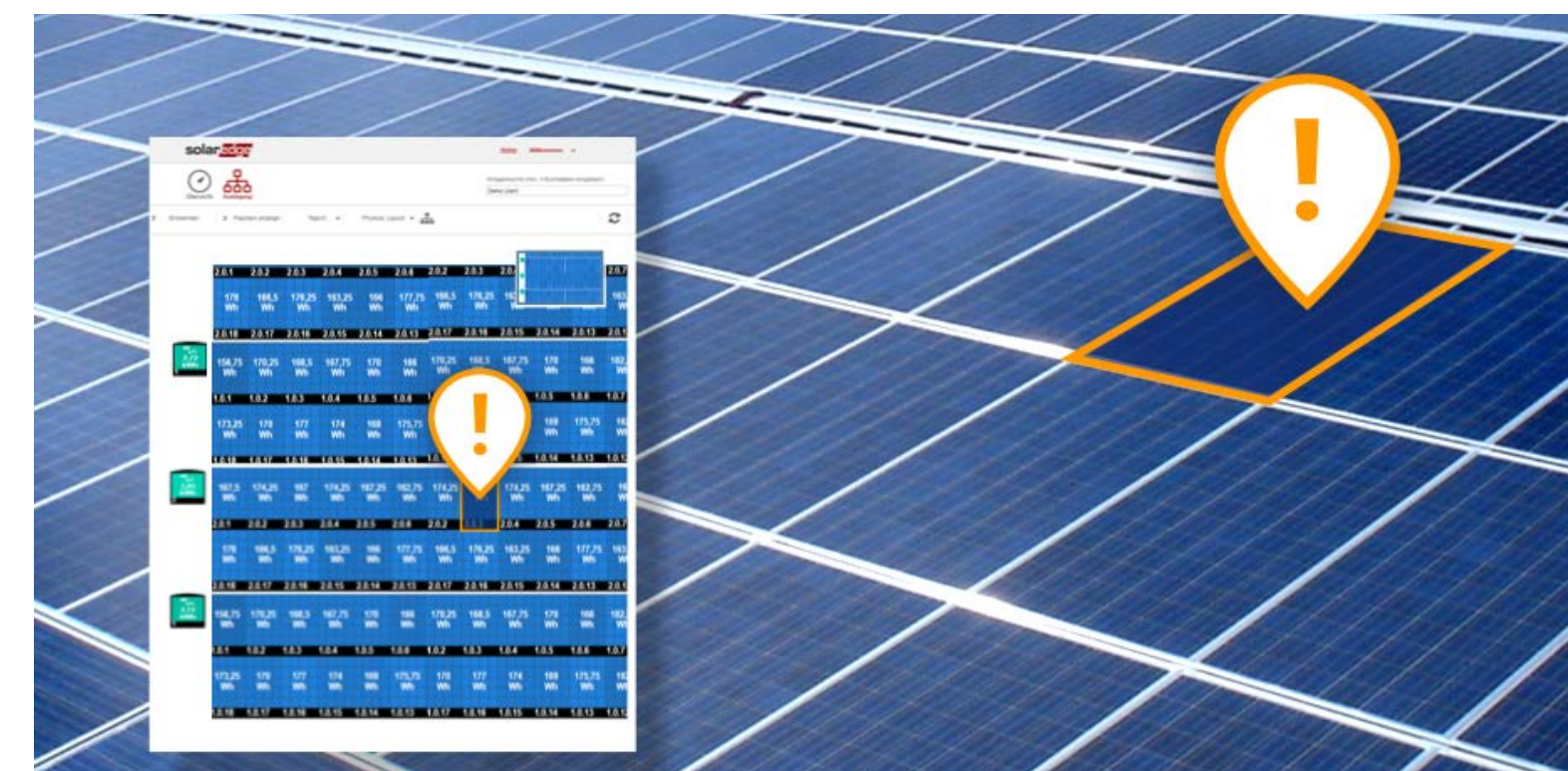


Before cleaning



After cleaning

Spotlight the energy yield of individual panels



Automatic alerts for immediate fault detection, accurate maintenance, and rapid response



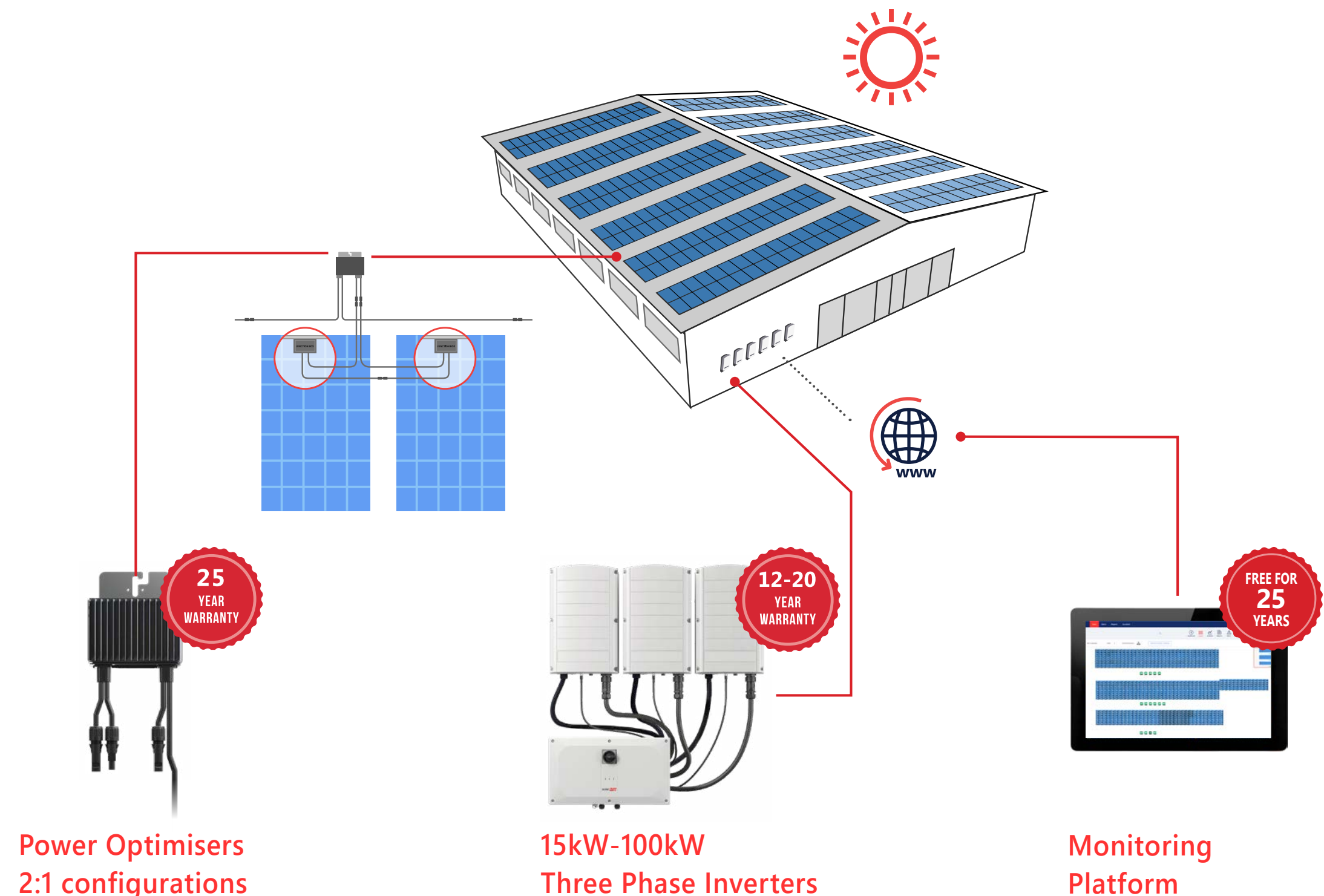
# SolarEdge Product Offering

Ideal for a diverse range of applications, including commercial and industrial rooftops, agriculture, carports, and multi-dwelling units, the SolarEdge commercial solution consists of inverters, Power Optimisers, and a Monitoring Platform.

Among its many benefits, our technology enables:

- Superior power harvesting and panel management by connecting Power Optimisers to every two PV panels (2:1)
- Installation of solar panels on all available areas (even partially shaded spaces) to maximise rooftop PV penetration
- High DC oversizing (DC to AC ratio) for greater energy production

We'll continue to evolve our smart energy ecosystem with diverse, interoperable solutions that can meet the demands of the changing commercial energy landscape.



Power Optimisers  
2:1 configurations

15kW-100kW  
Three Phase Inverters

Monitoring  
Platform

## Inverter Range (15kW-100kW)



- SE15K-AU000BNU4
- SE17K-AU000BNU4
- SE25K-AU000BNU4
- SE30K-AU000BNU4
- SE33.3K-AU000BNU4



- SE50K-AU00IBNV4
- SE66.6K-AU00IBNV4
- SE82.8K-AU00IBNV4
- SE100K-AU00IBNV4

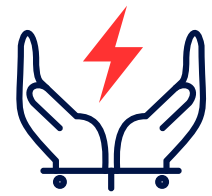
## Power Optimiser Range (up to 1400W input)



- P750 (1:1)
- S1000 (2:1)
- P1100 (2:1)
- S1200 (2:1)
- S1400 (2:1) - coming soon

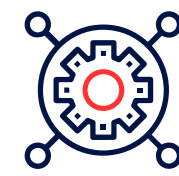


# A Win, Win, Win: Everyone Benefits with SolarEdge



## System Owner/Investor/ Developer

- / Higher energy production system uptime, and ROI
- / Industry-leading warranties: 12-20 years for inverters, 25 years for Power Optimisers
- / Enhanced safety



## EPC

- / BoS savings
- / Design flexibility
- / Simplified installation
- / Fast and easy commissioning
- / Enhanced safety



## O&M Provider

- / A robust solution with superior remote monitoring and control
- / Modular architecture enables greater system uptime and simplified O&M
- / Enhanced safety

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# Free Comparative Performance Assessment

Let us demonstrate the performance advantages of SolarEdge by conducting an independent comparative assessment of two identically sized systems, one using SolarEdge technology and the other using conventional string inverter technology.

**Contact your SolarEdge Commercial Manager for more information.**

**Compared to SolarEdge, there's more drawbacks to using conventional string inverters than just weaker performance:**

- / String-level systems have no way to detect/mitigate panel-level issues
- / Systems with external Rapid Shutdown boxes may not offer safety monitoring, which can lead to undiagnosed problems and surprise maintenance costs
- / More maintenance time and labour is required to examine the system, test and locate issues on site

To learn more about SolarEdge commercial solutions, please visit [www.solaredge.com/aus/commercial-solutions-pv-professionals](http://www.solaredge.com/aus/commercial-solutions-pv-professionals)

