



solar**edge**



# Slide Collection for Enterprise Partner

December 2025

400kWp carport and 768kWp on roof\_Evolv  
Waterloo, Canada

# Global leader in smart energy production, storage and management



**4.4M+**  
monitored  
systems

**140M**

Power Optimizers  
shipped

**60.1GW**

Systems shipped  
worldwide

**6.9M**

Inverters  
shipped



**Serving global,  
diverse markets**

Systems installed in  
**145+**  
countries

**3.9M+**

Homes

**50%+**

of Fortune-100  
Companies<sup>1</sup>

**92,000+**

SolarEdge  
Installers<sup>2</sup>



**Our  
edge**

**3,200+**  
employees



Power electronics and engineering



Software development, data  
science, cybersecurity



Automated manufacturing



Installer experience, service  
and learning services

Data as of Q3 2025

<sup>1</sup> Have SolarEdge technology on their rooftops

<sup>2</sup> Based on the number of installer accounts on our monitoring portal

# Optimized Energy Ecosystem for C&I Rooftops

Designed for a variety of Commercial and Industrial applications\*



# A Holistic Approach to Solar Safety

All SolarEdge Commercial solutions come equipped with a suite of advanced safety features, designed to help stop issues before they start.



## SafeDC™

A built-in, module level feature, SafeDC™ automatically reduces DC voltage to touch-safe levels within 5 minutes of inverter shutdown, enabling maintenance & emergency response.



## Rapid Shutdown

With Rapid Shutdown, the power in the modules and string wires are automatically reduced to 1V within 30 seconds, so firefighters and first responders can work safely during daylight.



## Arc Fault Detection & Prevention

Arc Fault Detection & Prevention recognizes and terminates electric arcs, that may pose a risk, through automatic inverter shutdown for string lengths up to 400m.



## Built-in Temperature Monitoring

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



## Module-Level Monitoring

Module-level monitoring helps asset managers stay proactive, recognize potential issues in advance, and ensure maximum uptime. Through real-time insight, notifications and alerts, it's easy to keep people and property protected at all times.

# Higher Yield

Unlock higher energy yield from every panel through advanced optimization technology.

## SolarEdge Technology

solar<sup>edge</sup>



Power Optimizer

## Influencing Factors

### Soiling

Mitigating soiling losses by optimizing each panel individually, maintaining higher energy production and efficiency.

### Shading

Minimizing shading impact by optimizing each panel individually, maintaining high energy output and efficiency.

### Ageing

Mitigating PV aging effects by optimizing each module, ensuring long-term performance and system reliability.

### Cable Faults

Reducing cable fault risks by isolating issues, enabling fast detection, and enhancing system safety.

### Panel Defects

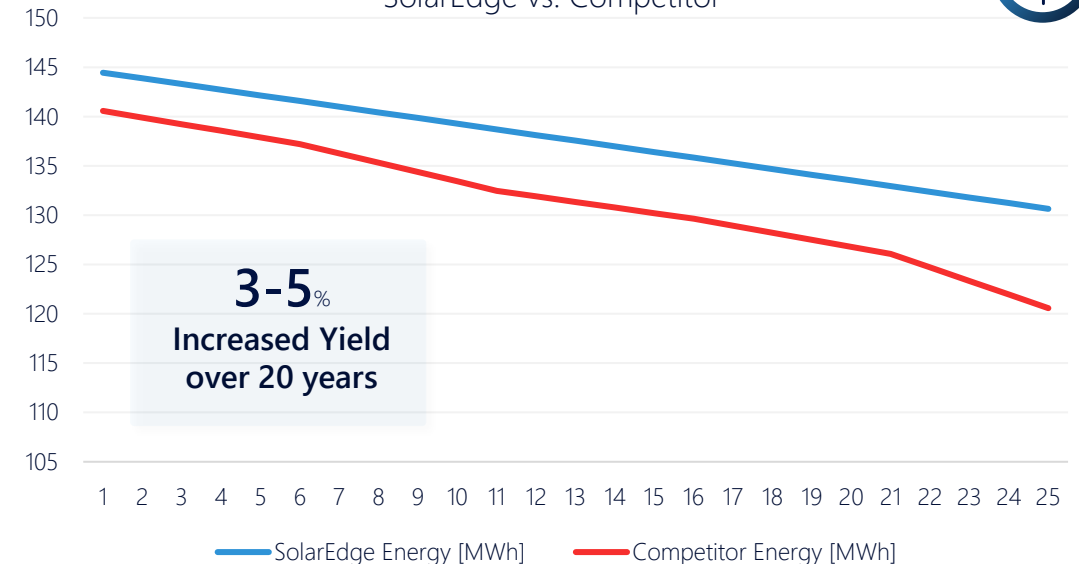
Reducing performance loss from panel defects by optimizing and monitoring each module individually in real time.

### Mismatch

Reducing mismatch losses by up to 1.5% - 2% compared to traditional string systems in completely unshaded circumstances.

## Annual Output Degradation over 20 years

SolarEdge vs. Competitor



### SolarEdge System

Produces higher yield through optimizing panel output avoiding shading, soiling or other sources of panel mismatch.

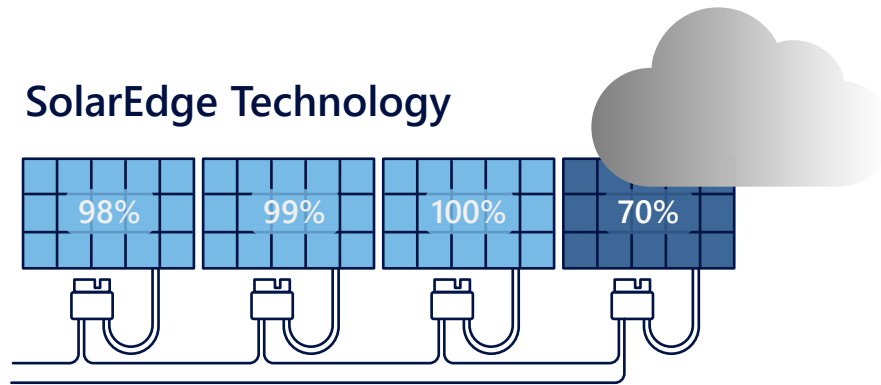
### String Inverter System

Starts with lower yield with further decrease as panels degrade over time lowering the overall system output at an increased rate.

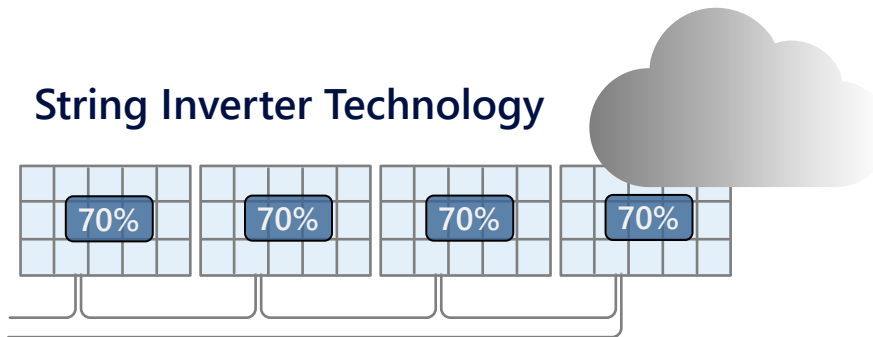
# Higher Yield

Independent Panel optimization, bypassing weak modules and enabling flexible design for maximum energy yield.

## SolarEdge Technology



## String Inverter Technology



## Avoiding Module Mismatch with SolarEdge

solar**edge**



Shading  
(current & future)



Thermal mismatch



Different tilt & orientation



Bi-facial mismatch



Soiling



Aging

### Faster ROI

Improved performance shortens the payback period of your PV installation.

### Improved System Reliability

ensures consistent performance, fewer failures, and longer system life with minimal maintenance needs.

### Lower Maintenance Costs

Identifying and fixing underperforming panels due to Module Level Monitoring.

### Higher Revenue

Increasing energy output, boosting revenue through higher system efficiency and performance.

# Secure Your Future with SolarEdge, Your Cybersecurity Partner

As an industry leader in PV technology, SolarEdge clearly recognizes the cybersecurity risks to its customers and national grids.

We see it as our responsibility to advocate for tougher industry standards as a minimum baseline and to develop cyber-secure products.



# SolarEdge's leading approach to cybersecurity includes:

670 kW, Super U Beaune la Rolande  
Installed by Enr J Solaire



Making cybersecurity an organizational priority

Backed by substantial investment, a dedicated team of experts lead our cyber efforts



Setting industry regulatory and policy standards

We are an active participant in various global cyber forums.



Developing products with cybersecurity top of mind

Ensuring our customers are protected from ever-evolving cyberthreats is at the heart of SolarEdge product design

Organizational priority

# Cybersecurity is at the Core of Our Business



## Technical Expertise

- Technical Director for Product Cybersecurity & Seasoned CISO
- Dedicated secure development lifecycle (SDL) team
- Acquisition of a large team of cybersecurity experts with a proven track record
- In-house "Red Team" & Vulnerability researchers
- External partnership with an industry-leading incidence Response Team (IRT)



## Supply Chain Controls

- Vendor vetting process for hardware components (HBOM)
- Software provenance end-to-end in EU and Israel for both Inverter and Gateway Controller
- Security analysis of third-party code
- Secure manufacturing site controls
- Self manufacturing of ASICs



## Organizational Priority

- Cyber awareness training for all SolarEdge employees
- Recurring Penetration testing & mitigation work plan
- Vulnerability Disclosure Program for external researchers (Bug Bounty)

\* While others complain about "talent shortage," we advance

# Enhanced Safety & Security

## Our layered approach for protecting the solar energy ecosystem, from installation to production

Proactive security measures, continuous monitoring, and the ability to rapidly respond to an incident, if it occurs.



### Visibility & Control

We prioritize the needs of our customers' security teams by designing our products not just to be secure but to also ensure maximum visibility and control for our users.



### Network Safeguards

The energy sub-network is structured to securely integrate with your organizations' IT and OT networks.



### Data Protection

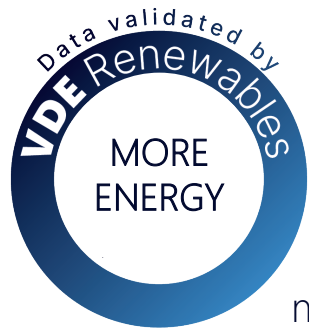
User data and energy usage data is securely transferred and stored, ensuring maximum data privacy and protection from cyberthreats.



### Device Security

SolarEdge inverters are the heart of the PV system, and together with other SolarEdge devices, are designed to prevent and detect PV system-wide cyberattacks.

# A new report by VDE Renewables demonstrates SolarEdge's technology advantages:



“ SolarEdge's MLPE topology addresses issues caused by PV module power losses....

This ensures optimal performance for each module, minimizing losses and **delivering the maximum possible power to the inverter** “



“ SolarEdge **addresses key safety challenges** in PV systems through

advanced technologies .....these advanced features **build trust in solar technology** and reinforce SolarEdge's commitment to safe, reliable, and high-performance PV systems “



“ SolarEdge provides a clear example of how **robust cybersecurity mechanisms are essential** to

mitigating risks associated with cyber threats. The company's approach to cybersecurity demonstrates **alignment with international best practices...** “

[Read the full VDE Renewables report](#)

# Risk Categories

Protect your PV investment by choosing solutions that reduce fire risk, defend against cyber threats, improve insurability, and ensure long-term performance reliability.



## Fire

Protect your assets with advanced safety features, designed to help stop issues before they start.



## Cyber

Protect your PV ecosystem with the highest cyber security standards.



## Insurability

Reduce your Insurance cost with module level power electronics for commercial rooftop PV required by Insurance Providers.



## Performance Failure

Eliminate power losses and maximize your energy harvest.

# Fire Risk Tree



## Risk of Fire

Fire risks include electrical faults, overheating, faulty installations, arc faults, poor wiring, shading issues, and inverter failures.

### SolarEdge Risk Mitigation

solar**edge**



#### SafeDC™

SafeDC™ minimizes voltage, ensuring safety.



#### Rapid Shutdown

Rapid shutdown ensures emergency safety.



#### Arc Fault Detection & Prevention

Detects and eliminates dangerous electric arcs swiftly.



#### Built-in Temperature Monitoring

Monitors temperatures, optimizes performance, prevents overheating.



#### Module-Level Monitoring

Proactive monitoring ensures uptime, safety, and issue detection.

## Health & Safety Hazards

Fire incidents can cause severe injuries or fatalities, endangering building occupants and workers.

## Physical Damage to Buildings

Flames and smoke can destroy infrastructure, leading to costly repairs and reduced structural integrity.

## Physical Damage to PV Systems

Solar panels and electrical components can be destroyed, compromising energy generation capacity.

## Financial Loss

Fire-related damages result in significant costs for rebuilding, insurance claims, and lost assets.

## Disruptions to Building Operations

A fire can halt normal operations, causing downtime and logistical complications.

## Cost of Replacing PV Systems

Burnt-out solar infrastructure requires expensive replacements and reinstallation efforts.

## Reduced Energy Yield & Generation

Damaged PV systems cannot produce power efficiently, leading to lower output and reliability issues.

## Opportunity Costs

Lost productivity and time due to fire recovery efforts can impact business growth and revenue.

## Increased Peak Energy Costs

Without proper solar generation, businesses must rely on costly grid electricity during peak hours.

# Cyber Risk Tree

## Risk of Cyber Attacks on Inverters

Solar inverters face cyber risks from hacking, remote shutdowns, data breaches, unauthorized access, malware, insecure configurations, and supply chain vulnerabilities.

### SolarEdge Risk Mitigation

solar**edge**

Protect your PV Ecosystem with the highest cybersecurity standards.



#### Device Security

SolarEdge devices safeguard systems from cyber threats effectively



#### Data Protection

Secure transfer protects user data privacy and integrity.



#### Network Safeguard

Secure energy sub-network integrates safely with IT and OT.



#### Visibility & Control

Seamless integration offers full control and visibility.

### Unauthorized Access

Hackers may gain control of inverters remotely.

### System Shutdowns

Malicious actors can disable inverters, disrupting operations.

### Grid Instability

A compromised inverter may negatively impact the energy grid.

### Operational Disruptions

Businesses may face downtime due to inverter failures.

### Financial Loss

Increased grid fees and energy inefficiencies can raise costs.

### Network Breaches

Inverters may be exploited as entry points into IT networks.

### Lateral Movement

Attackers can spread through systems, impacting critical infrastructure.

### IT Infrastructure

Cybercriminals can extend attacks beyond energy assets to compromise corporate IT systems.

### Ransomware Threats

Cybercriminals may lock access to systems, demanding payment to restore operations.

### Data Leaks

Unauthorized access can lead to exposure of classified information.

### Operational Disruptions

Cyber incidents may halt energy production, affecting other assets.

### Financial Loss

Ransomware attacks or grid inefficiencies increase costs.

### Financial Loss

Increased grid fees and energy inefficiencies can raise costs.

### Legal & Compliance Risks

Breaches could result in regulatory violations and penalties.

### Financial Loss

Increased grid fees and energy inefficiencies can raise costs.



# Insurability Risk Tree



## Risk of Insurability of Assets

PV assets face risks from climate change, warranty issues, supply chain disruptions, cyber threats, evolving regulations, and technological uncertainties, impacting long-term insurability and financial stability.

### SolarEdge Risk Mitigation

solar**edge**

Integrate advanced safety, monitoring, and compliance features to reduce risk and align with insurer requirements.



#### Module-Level Optimization

SolarEdge devices safeguard systems from cyber threats effectively



#### 25-Year Warranty

Secure transfer protects user data privacy and integrity.



#### Cybersecurity & Compliance

Secure energy sub-network integrates safely with IT and OT.



#### Superior Safety

Achieve PV safety through a multi-faceted approach.

### Increased Insurance Costs

Premiums increase due to weather risks, operational failures, and cybersecurity vulnerabilities, impacting financial stability.

### Extended Break-Even Period

Higher costs delay profitability, making renewable energy investments less attractive to stakeholders.

### Increased Real Estate Insurance

Buildings with PV systems face higher premiums due to fire hazards and electrical failures.

### Feasibility Doubts

Uncertain insurance terms lead investors to question the viability of solar projects.

### Disputed Claims

Complex policies cause disagreements, delaying financial compensation and creating uncertainty.

### Expensive Legal Proceedings

Litigation over claim disputes increases costs and burdens businesses financially.

### Higher Compliance Efforts

Companies invest more in risk management, increasing operational expenses and complexity.

### Physical Damage to PV Systems

Solar panels and electrical components can be destroyed, compromising energy generation capacity.

### Stricter Business Case Reviews

Investors and insurers demand in-depth risk assessments, slowing approvals and funding.

### Project Delays

Stronger evaluations prolong implementation timelines, affecting renewable energy deployment goals.

### Escalating Capital Costs

Insurance, compliance, and risk mitigation expenses raise financial barriers for solar infrastructure projects.

# Performance Failure Risk Tree



## Risk of Performance Failure

The risk of product failure in PV systems stems from component degradation, installation errors, or environmental stress.

### Failure to Achieve PV-Performance

Forecasted PV energy generation is not met due to underperforming PV assets and delayed maintenance.

### Failure to generate planned revenue

Planned revenue generation from selling the energy or avoiding purchasing grid energy is not realized.

### Failure to meet PPA obligations

In case of a PPA agreement there may be contractual obligations that cannot be met due to impacted performance.

### Cost for Procuring Grid Energy

Required energy must be procured from the grid at a higher than projected cost.

### Cost of Replacing PV Systems

Burnt-out solar infrastructure requires expensive replacements and reinstallation efforts.

### Reduced Energy Yield & Generation

Damaged PV systems cannot produce power efficiently, leading to lower output and reliability issues.

### Increased Peak Energy Costs

Demand peaks cannot be lowered through PV energy leading to increased peak demand charges.

## SolarEdge Risk Mitigation

solar**edge**

Benefit from smart optimization, real-time monitoring, and built-in safety to keep your PV system running at peak efficiency.



### Module-Level Optimization

More energy yield and no string-level bottlenecks.



### Real-Time Monitoring & Alerts

Module-level visibility and automated alerts for underperformance, faults, or shading issues.



### Smart Design Flexibility

Maximizes roof space and avoids design-related inefficiencies.



### Built-In Safety & Reliability

Fewer failures, safer operation, and lower O&M costs.

# Three Phase Inverters with Synergy Technology, up to 100kW



Modular and lightweight units managed by a single point of control:



## High capacity

/ Up to 100kW @400Vac grid



## More energy

/ 175% oversizing

/ Built-in PID rectifier

/ Continuous energy flow, even when one of the Synergy units is offline



## Enhanced safety

/ SafeDC™ and integrated arc fault protection

/ Built-in thermal sensors that detect faulty wiring



## Lower BoS costs

/ One AC connection to Synergy manager unit

/ Streamlined cabling

# Three Phase Inverters



Ideal for small-medium size solar projects

- / 20kW-33.3kW @400Vac grid
- / Faster installs with compact, lightweight inverter units
- / Greater performance with 175% oversizing
- / Enhanced safety with SafeDC™, integrated arc fault protection and optional rapid shutdown
- / Reduced BoS costs with longer strings and flexible system design

# S-Series Power Optimizers

S1000 & S1200



Smart design. Simple cable management.  
Safe installations

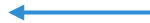
- / Increases overall system yield and revenue by tracking the maximum power point of every two PV modules
- / Supports high input current, bi-facial and high-power M10 modules, up to 600W
- / Overcomes complex layouts by installing modules in multiple orientations and tilts
- / Lowers BoS costs with flexible system design that enables fewer, longer strings (up to 23kW per string), strings of different lengths
- / Maximizes safety protection with built-in SafeDC™ and SolarEdge Sense Connect

# S-Series Power Optimizers

S1500



Fin size ~15% smaller  
than S1200 model



Supercharge your solar installations with SolarEdge's most powerful next generation Power Optimizer

- / Greater power density enables record-breaking 30.4kW of power per string, for fewer and longer strings (compared to S1000/S1200)
- / Supports high input current, bi-facial and high-power M10 & G12 modules, up to 750W
- / Maximizes protection with built-in SafeDC™ and SolarEdge Sense Connect
- / Easier to install, especially in challenging spaces, with ~15% slimmer profile

# CSS-OD

## Battery Cabinet and Battery Inverter



- / 102.4kWh (rated)/50kW, scalable to 1MWh\*
- / Rated for outdoor & indoor use
- / 10-year warranty for system and 6000 cycles performance warranty, from a bankable vendor
- / Pre-assembled cabinet for minimal on-site work
  - Fast deployment
  - Reducing installation errors
- / Advanced safety
  - Fire detection & double layer of suppression
  - Built in AC + DC SPDs
  - O&M and alerting via SolarEdge ONE and Go
- / Built-in HVAC
- / Two-cluster design for resiliency
- / Weight: 1.5T



# Thank You



## Cautionary Note Regarding Market Data & Industry Forecasts

This power point presentation contains 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.

Version #: V.1.0