

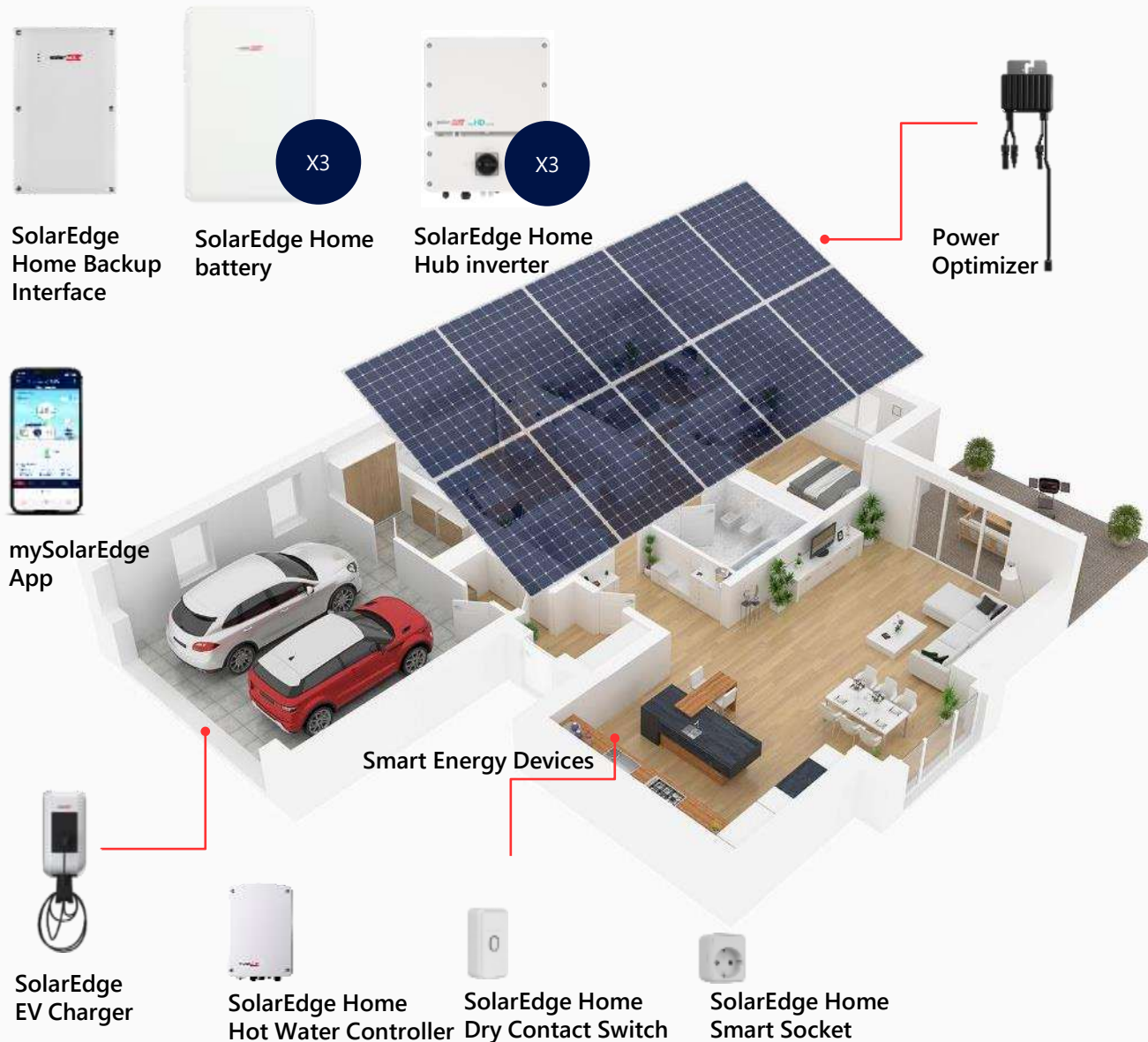


solar**edge**
Home

SolarEdge Home

Storage and Backup Solution

Francois la Cock, Technical Sales Manager



solaredge *Home*

A complete smart energy ecosystem combining PV, backup, storage, and EV for even greater customer value

SolarEdge Home Storage and Backup Solution

SolarEdge Home
Hub Inverter



+



+



SolarEdge Home Backup
Interface

SolarEdge Home
Battery

Power Optimizer



Module level
monitoring



SolarEdge EV
Charger



Smart Energy
devices



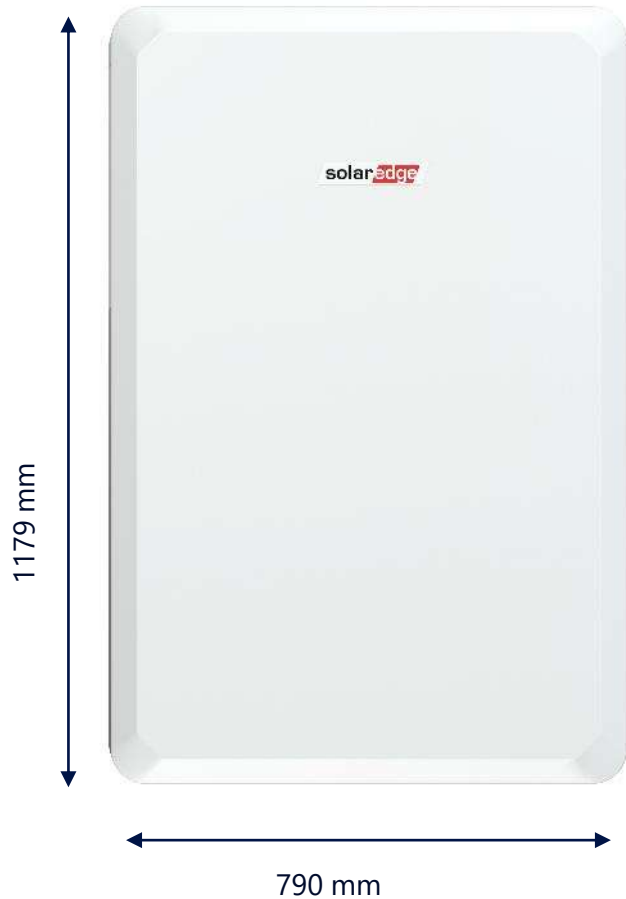
SolarEdge Home Hub Inverter – Single Phase



The all-in-one solution for backup, storage, EV charging, and smart energy devices

- Record-breaking efficiency (99% CEC)
- High DC-AC oversize ratio (200%)
- Backup ready inverter
 - Backup operation requires Backup Interface & Battery
- Serves as Home Energy Manager
 - Built-in consumption meter
 - Manages battery, backup power, EV charging, and other smart energy devices
- Seamless connection with SolarEdge Home Network
- Available sizes: 5kW -6kW

SolarEdge Home Battery – High Voltage



Highly efficient DC-coupled battery, provides an ideal storage option for extra power in both backup and on-grid applications*

- Highly efficient energy storage with up to 94.5% round trip efficiency
- Multiple batteries stacking per inverter for increased system capacity
- Easier, Flexible installation - indoor or outdoor
 - Swift plug-and-play installation via SetApp
- More safety by design:
 - Continuous protection through measurement and monitoring of battery current and voltage levels
 - A built-in array of multi-point temperature sensors to mitigate the risk of battery overheating
- Easy O&M via the SolarEdge Monitoring Platform

solaredge
Home

* Backup applications are subject to local regulations, require connection with SolarEdge Home Hub Inverter and the SolarEdge Home Backup Interface.

SolarEdge Home Backup Interface – Single Phase



Provides your customers with backup power* for either full or partial home loads in the event of grid interruption.

- Controls the disconnection of house loads and PV generator from the grid in backup mode
- Rated for service-side connection, up to 100A
- Multi-inverter support – Up to 3 Inverters each with 3 Batteries

SolarEdge Home Benefits for Installers



Differentiation



More Earning
Opportunities



Ease of Installation



Single Trusted Vendor

Differentiation





More energy



Best-in-class product solution



Enhanced safety

Stand out with an offer that helps homeowners maximise energy production and consumption

- Extract more energy from each module
- Fewer power conversions with DC coupling – better for battery storage
- No clipped energy – excess PV is stored into battery, not lost
- Higher PV production with 200% DC oversizing

Enrich your portfolio with best-in-class product solution

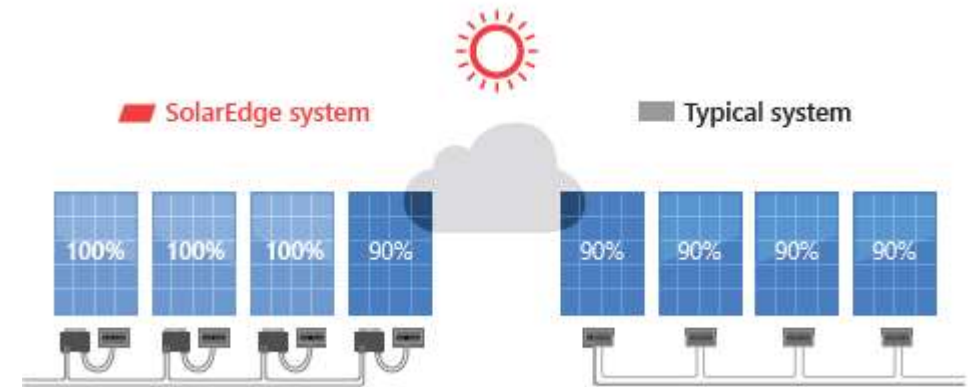
- Award winning products
- A single app to monitor and manage solar, storage, EV charging, and smart devices
- SolarEdge's warranty stands out against competition as an overall solution

Industry-leading safety measures to maximise protection of people and property

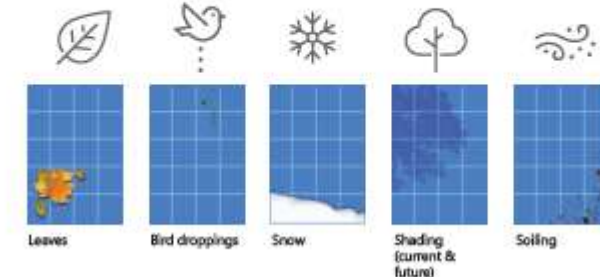
- Automatically reduces to touch-safe voltage when needed
- Compliant with the most rigorous safety regulations UL9540A, UL1973, UN38.3

More Energy with SolarEdge DC-optimised Technology

- The SolarEdge solution provides:
 - Module-level monitoring based on real-time tracking
 - Flexible design
 - Unparalleled safety
 - And much more

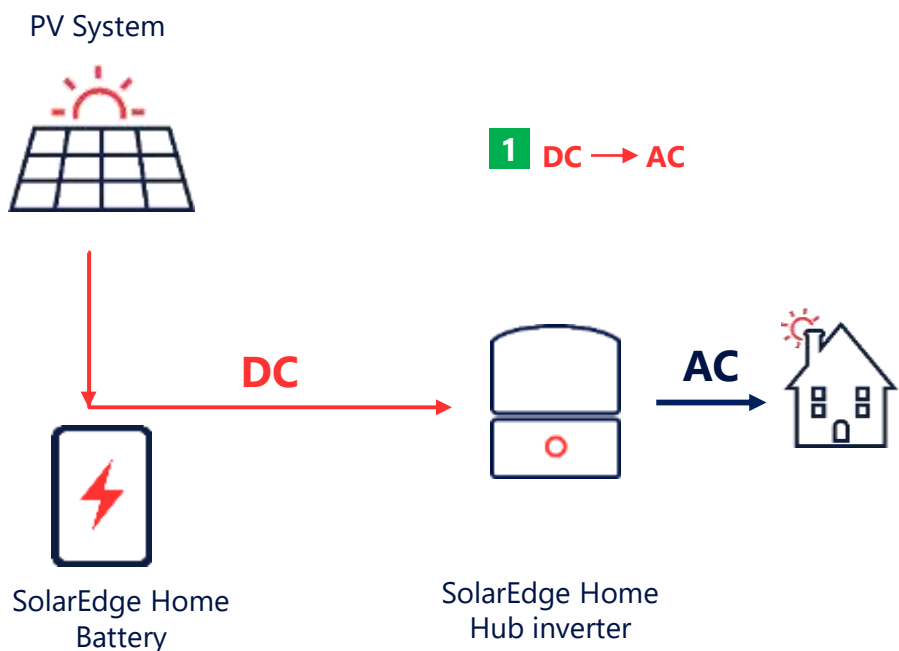


- String inverter technology provides:
 - Energy losses (limited to the lowest producing module)
 - No module-level monitoring
 - Safety limitations
 - Design limitations



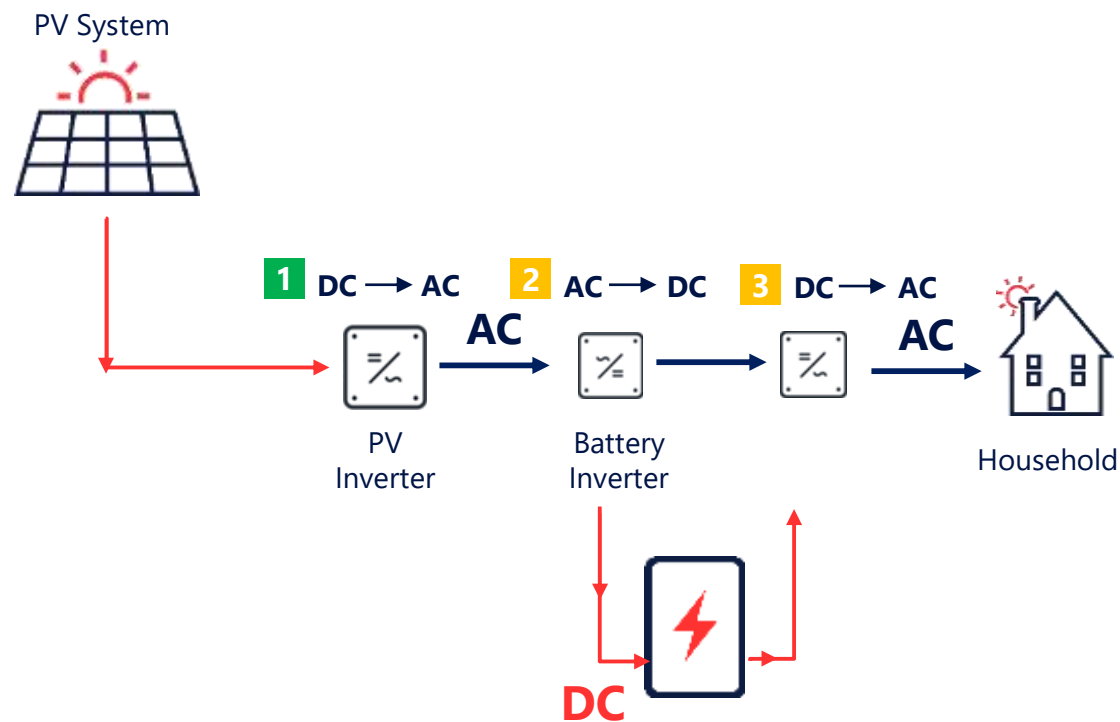
DC-Coupled = Fewer Conversions + Higher Efficiency = More Energy

DC-Coupled Solution = 1 Conversion



VS.

AC-Coupled Storage Solution = 3 Conversions



High Efficiency with SolarEdge's DC-Coupled Solution

DC-Coupled

Energy goes directly to the battery without needing to go through an inverter

SolarEdge DC-Coupled System	
Power Optimizers DC-DC	99.5%
Battery Round-trip DC	94.5%
SolarEdge Home Hub inverter DC-AC	99.2%
Total system efficiency	93.28%

AC-Coupled

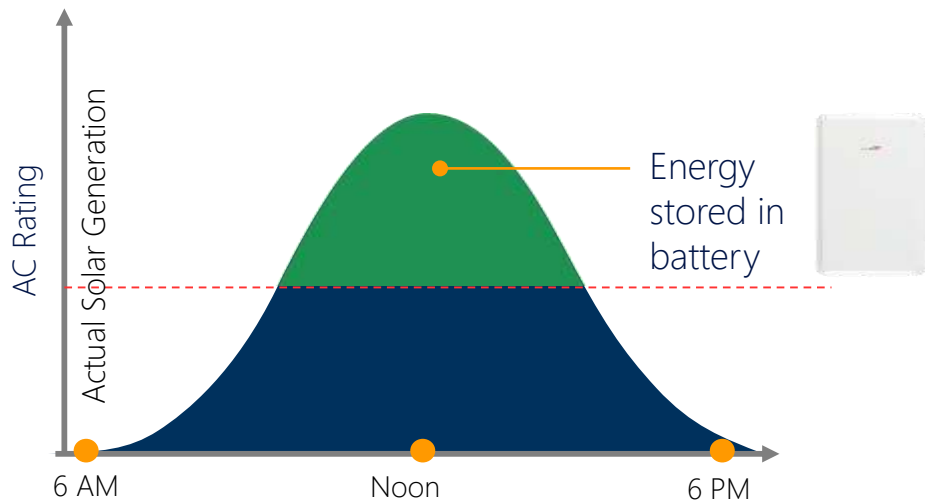
Excess PV power beyond the inverter rating is lost

AC coupled Systems	
Inverters DC-AC	97.6%
Battery inverter AC-DC	97.6%
Battery Round-trip DC	93%
Battery inverter DC-AC	97.6%
Total system efficiency	86.46%



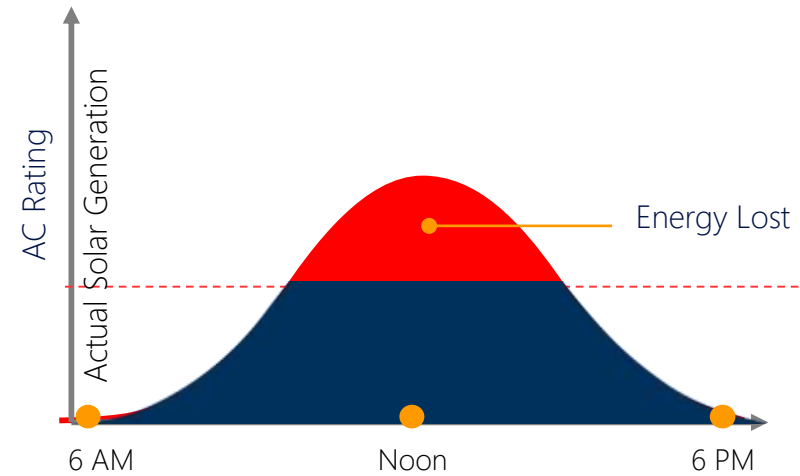
DC Coupling + 200% DC Oversizing = More energy → faster payback
More resilient → longer backup

DC-Coupled Storage Solution with SolarEdge



VS.

AC-Coupled Storage Solution





DC-Coupled = Fewer Conversions + Higher Efficiency = More Energy

	SolarEdge DC-Coupled Home Hub and Battery Solution	Third-party AC-Coupled Solution
More consumable energy	With up to 200% oversizing, DC energy goes into the battery directly, avoiding clipping and resulting in more savings for the homeowner	DC oversizing often results in clipping. Clipped energy is lost; can't be stored in a battery, as well as double conversion losses (as below mentioned)
Higher efficiency	Up to 93.28% system efficiency. Only 1 conversion is necessary to create usable energy	Up to 86.46% system efficiency. Less efficient because 3 conversions are required to get usable energy.
Sell a larger PV system	Ability to install a larger PV system from the get-go or expand easily later.	Potential loss of opportunity



mySolarEdge App

Better for homeowners, better for you

- Improve customer satisfaction with a dedicated monitoring app for SolarEdge system owners.
- Monitors system performance, anytime, anywhere
- Controls smart energy home devices on-the-go
- Configures inverter communications and status for quick and easy troubleshooting
- Provides quick access to SolarEdge support
- Quick resolution for service issues:
 - Saves time on unnecessary visits by the installer
 - Greater independence – less need to contact SolarEdge support or installer



Dynamic Outage Management*

With the SolarEdge Home Backup Interface

1 Set Preferences

- Backup reserve settings
- Backup mode settings

3 Manage Backup Event

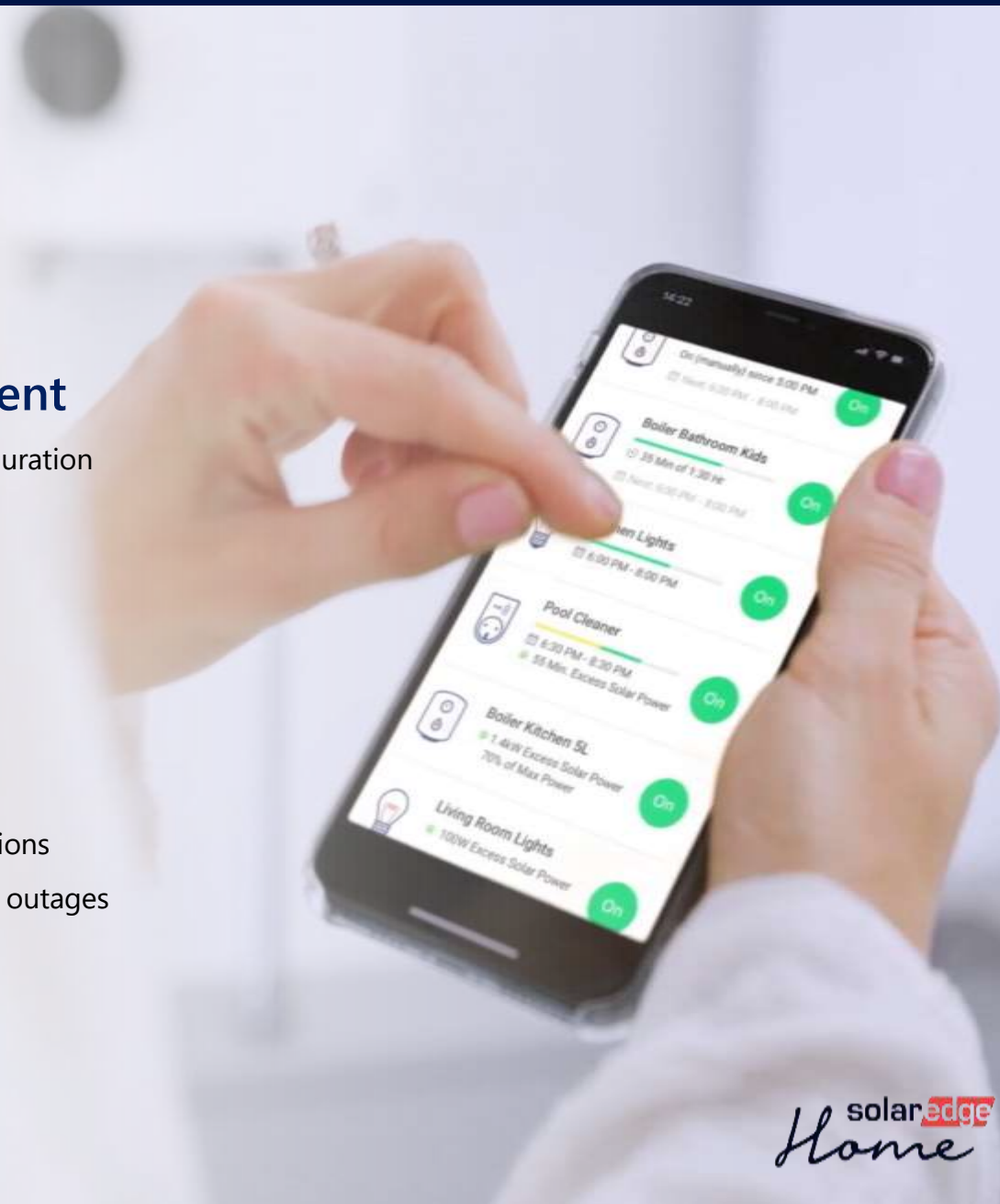
- Power flow & battery status view
- Consumption & backup time optimization

2 Prepare Backup Event

- Backup reserve manual configuration
- Outage alert/notifications

4 Post Event

- Return to steady state mode
- Event summary and notifications
- Recommendations for future outages

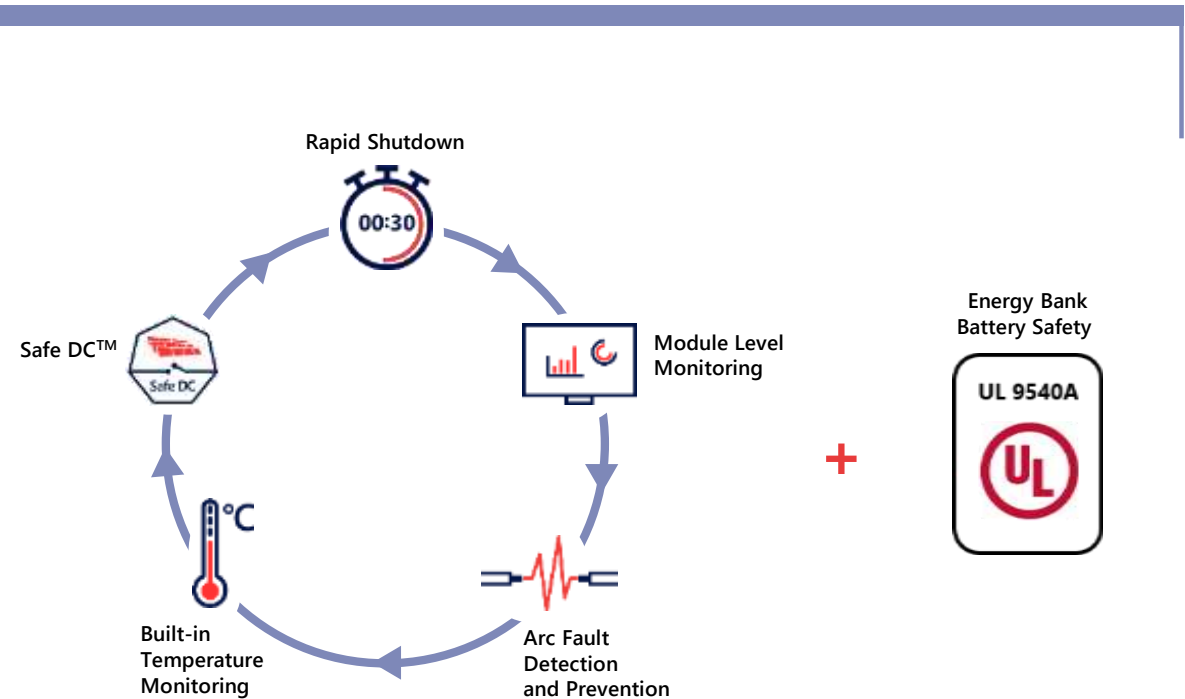


* Expected (plan of intent) to come in Q4 2022



Comprehensive Safety Solution from PV to Battery

- SolarEdge is setting industry-leading safety measures for battery protection
- The SolarEdge Home Battery includes advanced features to maximise battery safety
 - Continuous protection through measurement and monitoring of battery current and voltage levels
 - A built-in array of multi-point temperature sensors to mitigate battery overheating
 - A unique combination of software and hardware mechanisms
 - Pressure release mechanism
- Compliant with the most advanced safety regulations UL9540, UL9540A, UL1973 & UN38.3



More Earning Opportunities





More Revenue with Add-ons or System Expansion

- Additional SolarEdge Home Battery sales (up to three per Home Hub inverter*)
- Smart Energy add-ons such as the SolarEdge Smart EV Charger, smart hot water device controllers, sockets & relays
- Sell larger systems with up to 200% DC oversizing



Today



Year 2



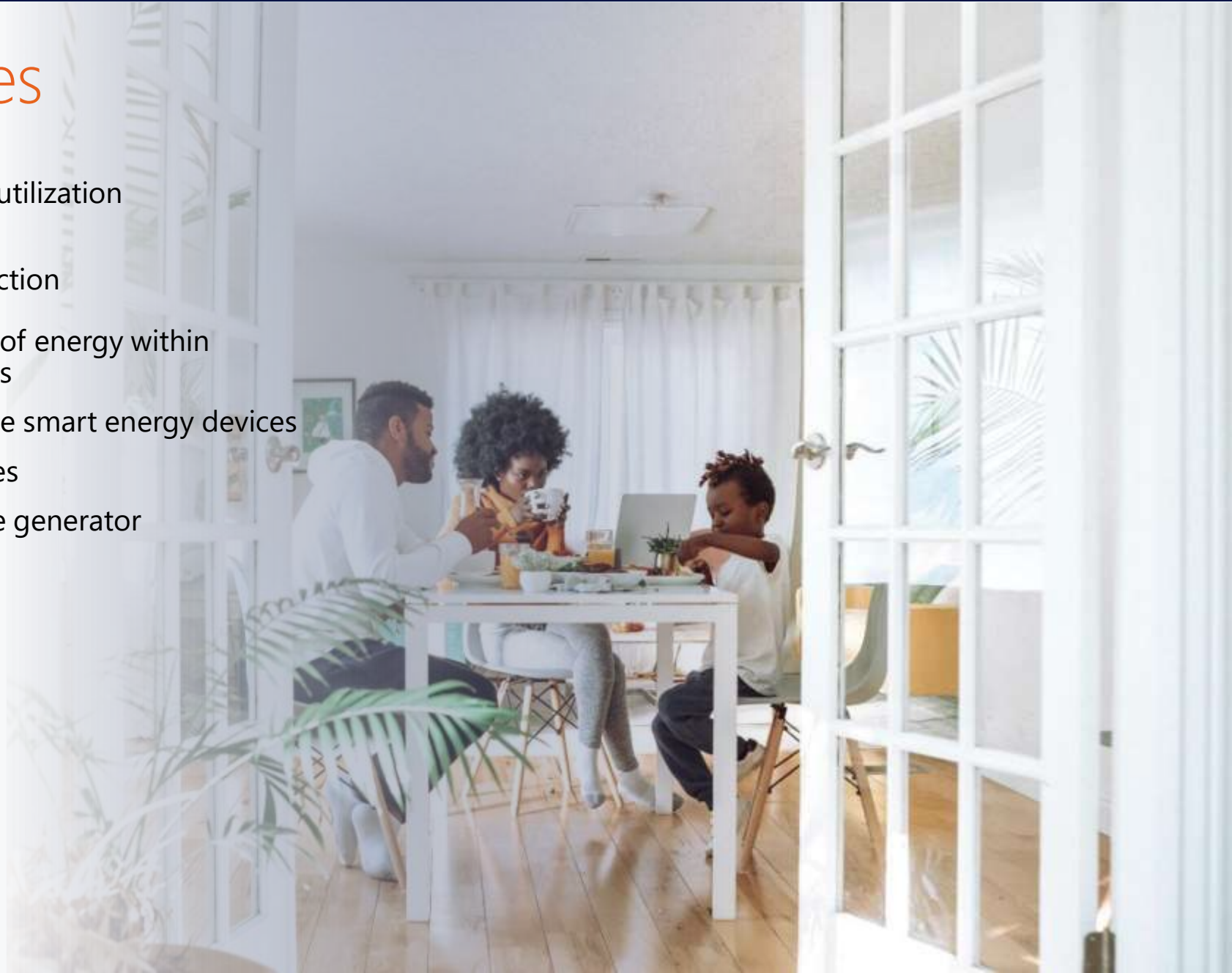
Year 5





Smart Energy Devices

- New smart energy devices optimise PV utilization enabling homeowners to:
 - Monitor energy usage and production
 - Control and/or automate the use of energy within a household, reducing electric bills
- Allowing you to offer customers multiple smart energy devices
 - Increase homeowner opportunities
 - Turn installed system into revenue generator
- Enhance competitive differentiation with enhanced product offering



The Operating System Roadmap

Back Up

On Grid



Extend Backup Time

Preserve battery energy for critical device operation by controlling non-essential appliances

Overload Protection

Make sure backup power continues to operate by automatically limiting or turning off appliances to avoid system overload

Consumption Optimisation

Schedule, optimise and prioritise devices to minimise operational costs with the help of automation and system-generated recommendations

Excess Solar

Use excess solar power to run devices on solar energy only, or on a combination of solar and grid power

Import protection

Mitigate overloads and protect the home's main breakers by automatically limiting or turning off appliance consumption

* Availability planned on 2022. Subject to change without notice

Ease of Installation



Integrated solar + storage design helps accelerate installations

- Avoid significant costs in potential switchboard and main breaker derating, with PV and battery behind the same breaker
- Save time with pre-installed meters and CTs
- Further reduce installation costs with the ability to add more modules per string, reducing strings per site
- Built for indoor/outdoor and wall mount/floor mount options
- Get trained with our mandatory SolarEdge Home Battery certification courses



More Flexible Battery Installation

- ▀ Floor mounted with wall attach
- ▀ Indoor or outdoor installation





Simpler installation

- Seamless Communication with SolarEdge Home Network
- Quick commissioning using installation wizard in SetApp*



Verify installation excellence

- Battery self-test
- Full backup test



Easy remote maintenance

- Remote diagnostics and alerts
- Remote firmware upgrades to both inverter and battery
- Remote ability to update product parameters

* Expected to come in 2022

Seamless Communication with SolarEdge Home Network

Wirelessly connects the devices in the SolarEdge Home smart energy management ecosystem

- Reducing wiring and connections work
- No cables, conduits, or drilling
- Minimises installation time & risk of errors
- Automatic device detection – devices pop up on application when powered
- Rapid discovery process
- Longer transmission ranges and more reliable and robust communications



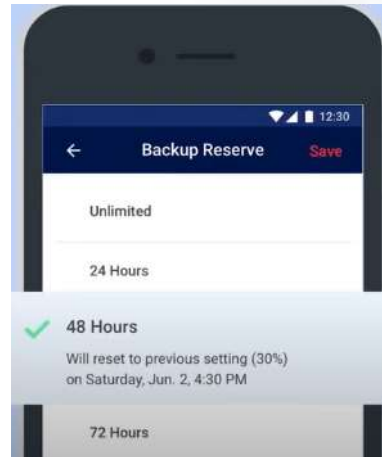
Easy O&M with SolarEdge's Monitoring Platform

- Full visibility of system's performance, including interactive charts and site layout
- Real-time data at the module-level, battery-level, and system level
- Less interoperability issues with 3rd party HW
- Automatic pinpointed module-level alerts for all installed components (modules, power optimizers, inverters, and batteries):
 - Detailed battery and backup alerts
 - Troubleshooting recommendations for each alert



Manage All Your Estate's Storage Profiles, Simultaneously

- Configure charge/discharge profiles in your estate for several inverters simultaneously
 - A daily profile type (charge/discharge modes throughout a day), a seasonal profile (use during specified periods of the year), and a special day type (e.g. different daily profile for New Years).
 - Backup reserve: the portion of the battery that will only be used in the event of a power outage
- Configure in the monitoring web if the homeowner user can view and edit their backup reserve



A photograph of two hikers on a rocky cliff at sunset. The sun is low on the horizon, creating a bright glow and silhouetting the hikers. One hiker is higher up the cliff, using a climbing tool, while the other is lower down, holding a handhold. The background shows a body of water and distant mountains under a warm, orange sky.

Single Trusted Vendor

Streamline And Simplify Your Business



One Number
To Call



One Vendor



One Warranty



One Software
Suite



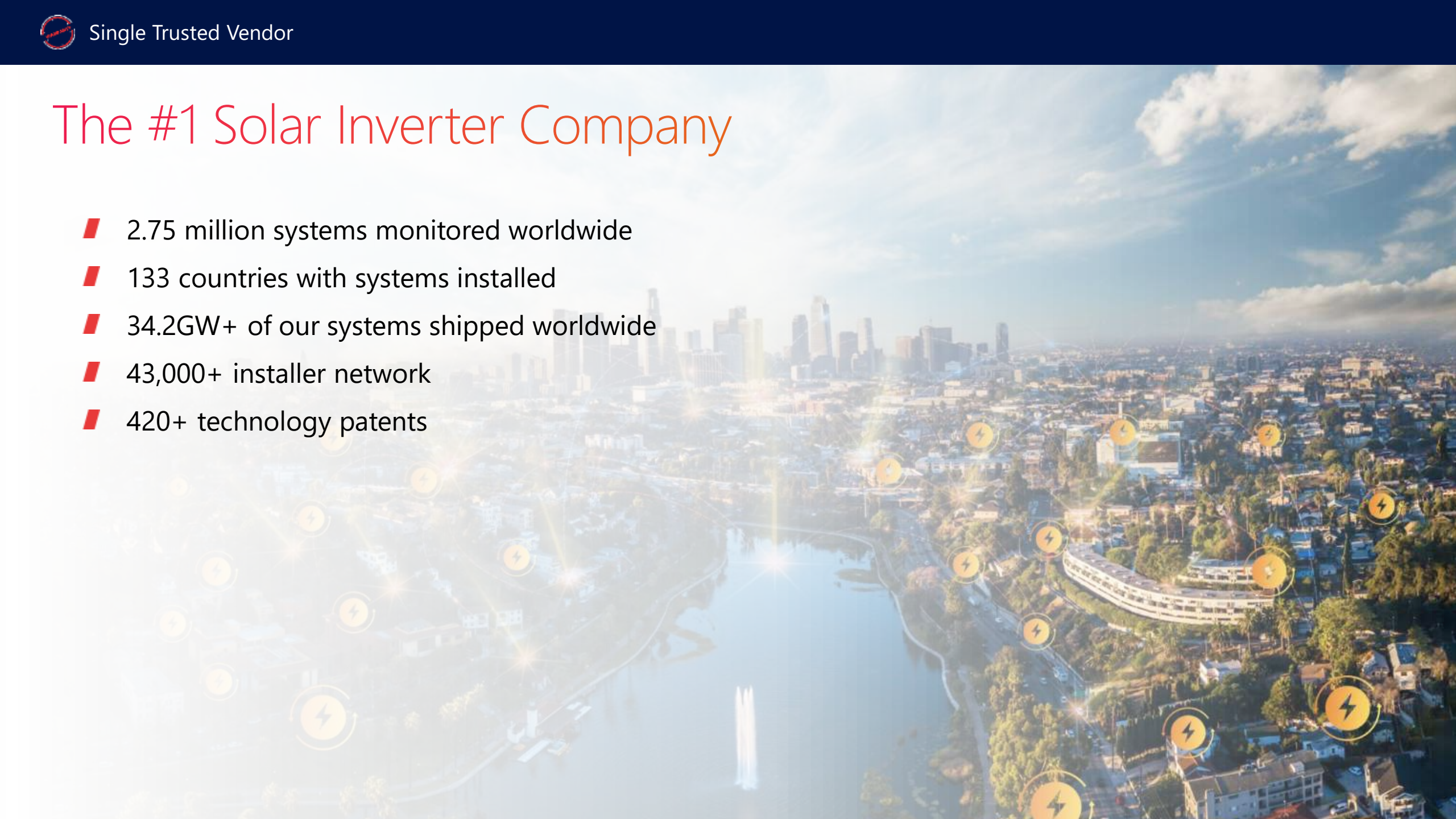
One Source of
Training





The #1 Solar Inverter Company

- ▄ 2.75 million systems monitored worldwide
- ▄ 133 countries with systems installed
- ▄ 34.2GW+ of our systems shipped worldwide
- ▄ 43,000+ installer network
- ▄ 420+ technology patents



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.

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