

NGSS Green Power

Drive Energy Revolution For Better, Greener Future



Agenda

- Why NGSS
- How Solution Works
- Solution Advantages
- Warranty
- Show Case

About NGSS

NorthEast Generators & Solar Solutions Ltd was established in 2016, headquartered in Port Moresby. At present, Our goal is the leading provider of green energy solutions in Papua New Guinea. We provide our customers with comprehensive solar energy storage solutions. We provide customers with Solar storage system, Solar storage inverter, Solar charge controller, Solar lighting solutions etc.

Our Mission

Enjoy Green Energy!

We are committed to becoming the driving force behind the solar energy industry in Papua New Guinea, facilitating a transformation of energy usage across the country. We strive to establish ourselves as a sustainable model for solar technology in Papua New Guinea, maximizing the value of our customers' investments.

Our Vision

To emerge as the most esteemed energy technology company in Papua New Guinea. We are dedicated to providing our customers with value-added products and services, fostering a growth-oriented environment for our employees, and creating exceptional investment returns for our shareholders.

Why NGSS? – The One-Stop Solution Themes

All-round

Safety
Protection



Strong

One-stop
supply chain
system



High

Availability
Strong local service
team



NGSS Partners – Top supplier in the industry



And More.....

Agenda

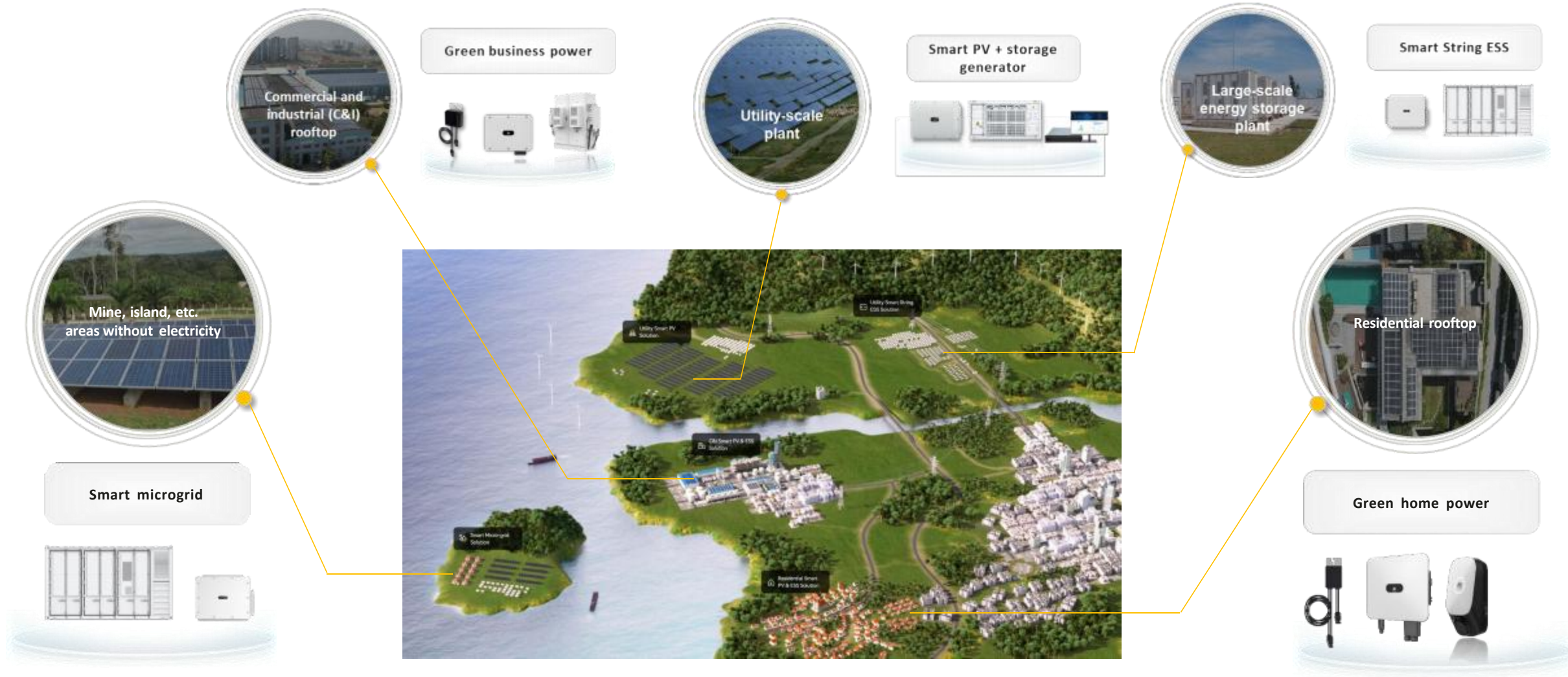
- Why Sigen
- **How Solution Works**
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Smart PV + BESS

New power system energy infrastructure

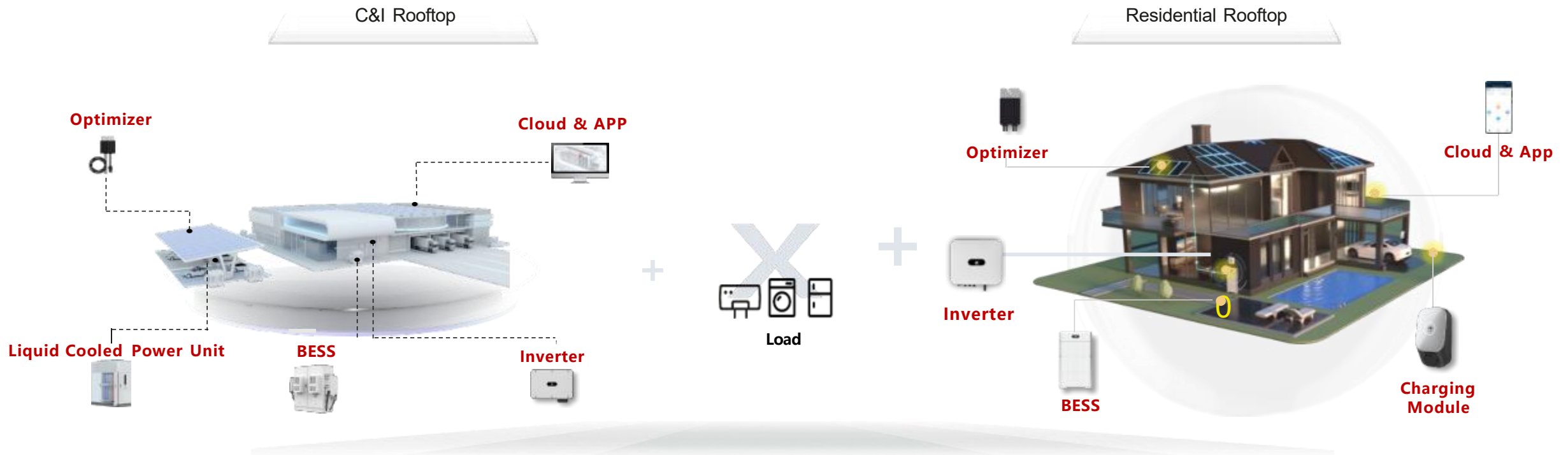
Combine PV and energy storage and make the green PV a main energy source for every home and business



All-Scenario Smart PV + Storage Solution

Better LCOE and LCOS, grid forming, active safety

Solar Rooftop: Create an economic, green and safe electricity usage



Intelligent generation

- Adaptive to any rooftop for maximum capacity
- **5% to 30%** higher energy yield

Intelligent storage

- Built-in energy optimizer
- **10%** higher charge and discharge capacity

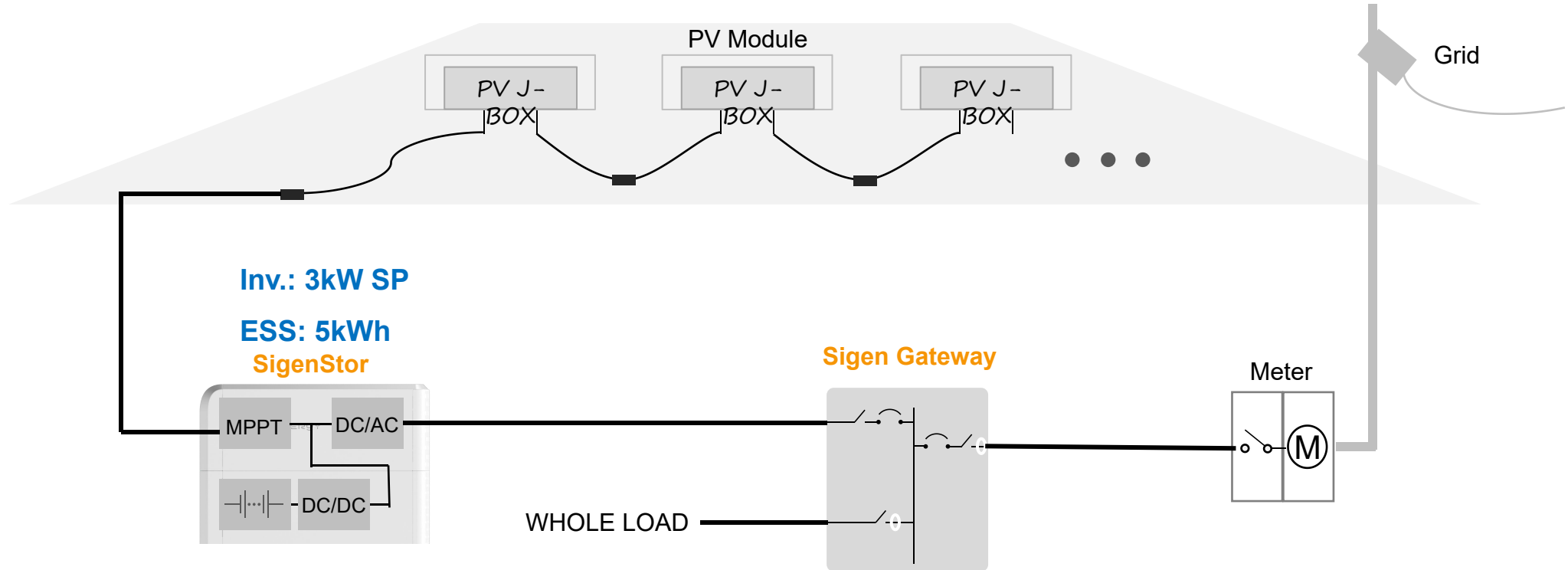
Intelligent safety

- Module-level **0.5s rapid shutdown**
- Intelligent arc protection
- AI internal short circuit detection and intelligent fire suppression module

Intelligent consumption

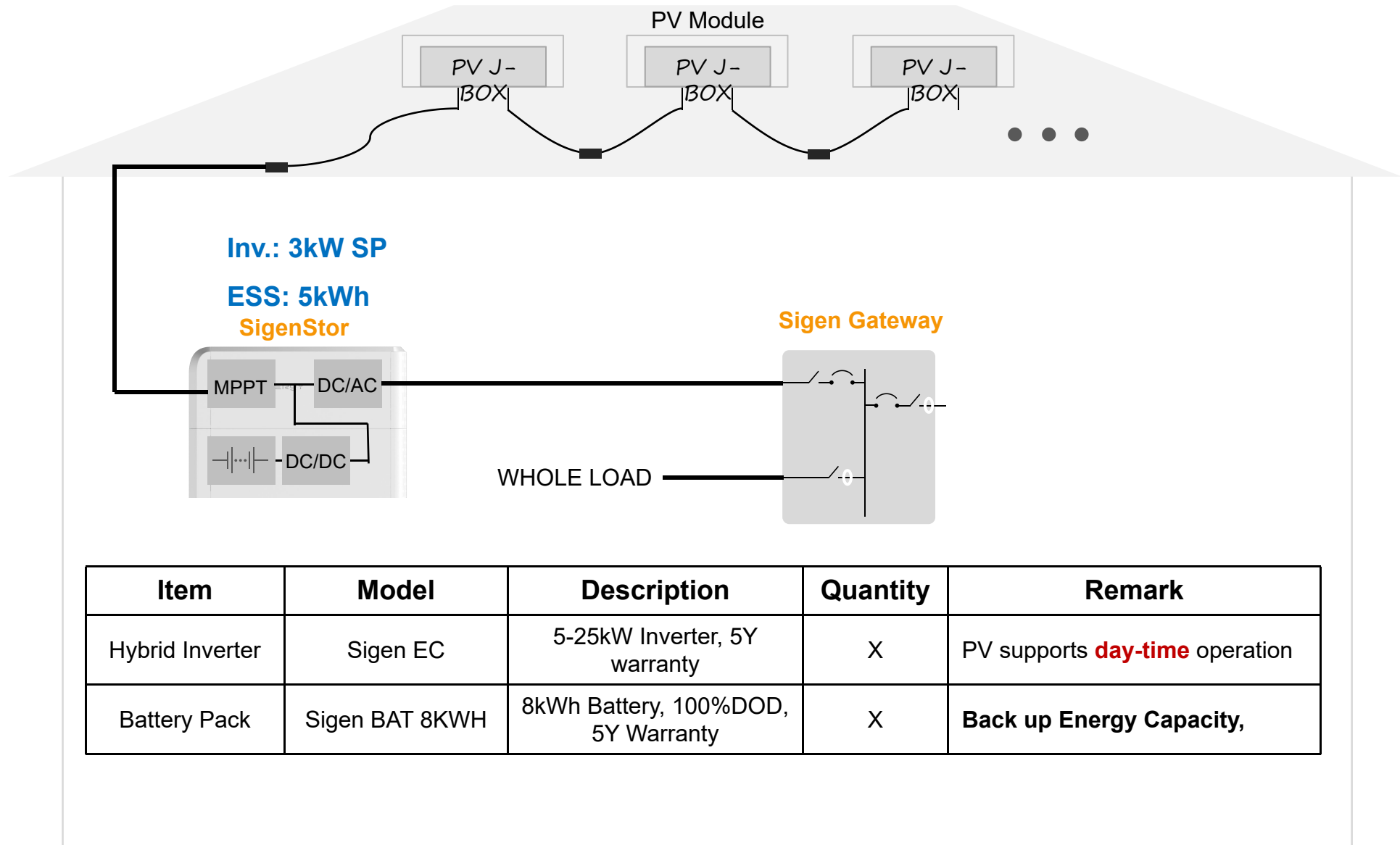
- AI-based PV+storage synergy
- **10%** higher self-consumption rate

PV+ESS as Power

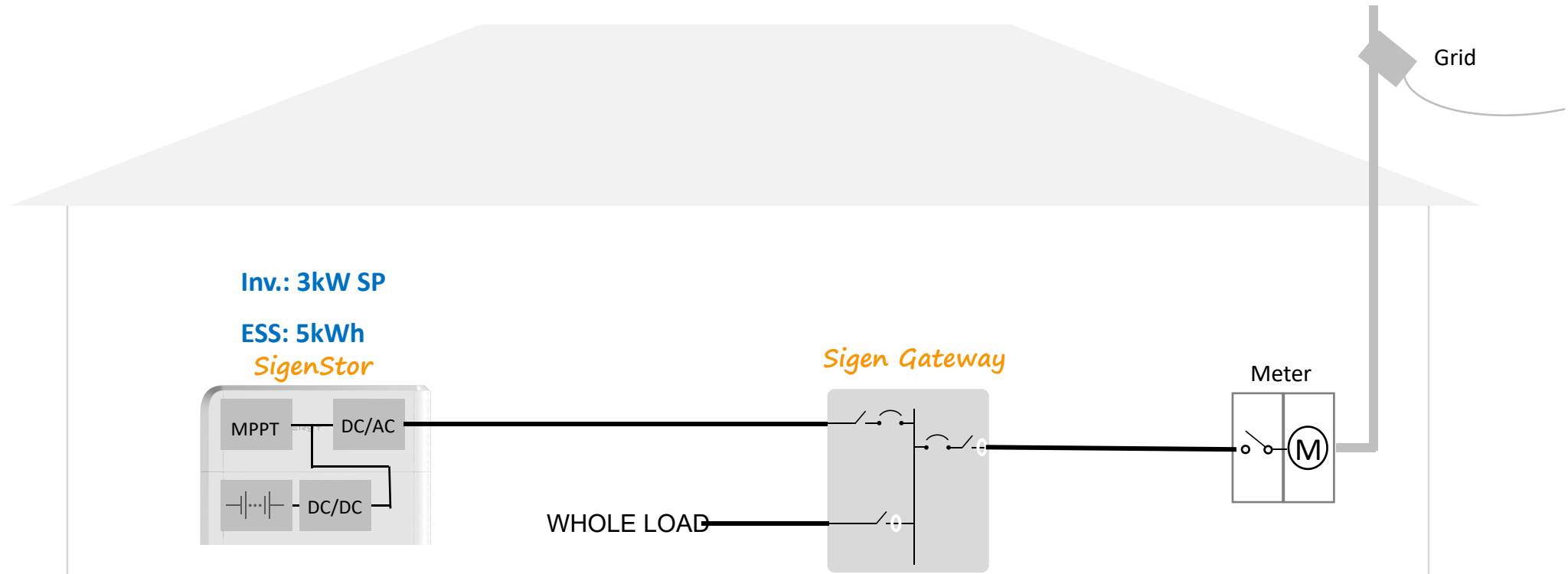


Item	Model	Description	Quantity	Remark
Hybrid Inverter	Sigen EC	5-25kW Inverter, 5Y warranty	X	PV supports day-time operation
Battery Pack	Sigen BAT 8KWH	8kWh Battery, 100%DOD, 5Y Warranty	X	Back up Energy Capacity,
Switching Box	Sigen Gateway	Switching from On Grid to Off Grid Mode	X	0ms Switching Time

PV as Power, No Grid

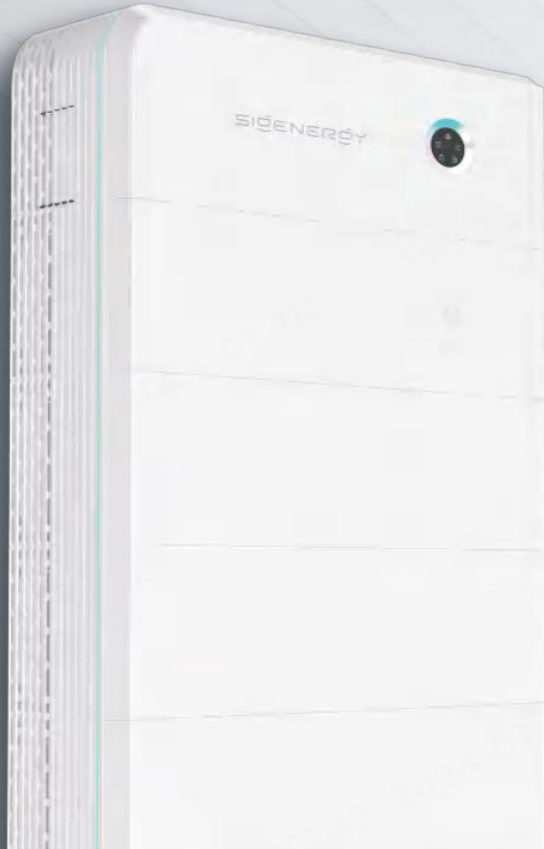


ESS as Power, No PV



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5-in-One, highly integrated design



▶ **Sigen Energy Controller**
for solar + energy storage system

▶ **Sigen EV DC Charging Module**
Ready for V2X

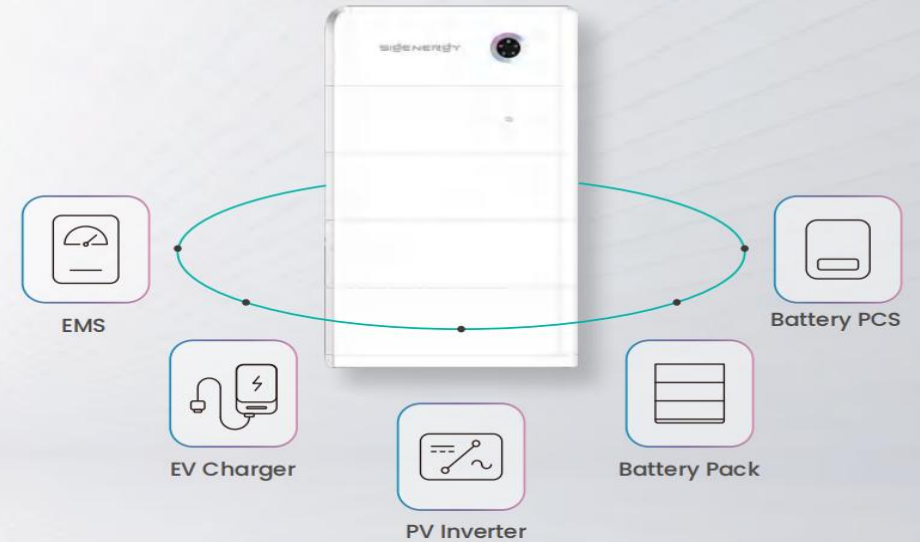
▶ **Sigen Battery**

8.0 **5.0**
Energy capacity (kWh)

1 – 6
batteries stackable for per stack

5 kWh – 48 kWh
energy capacity range for per stack

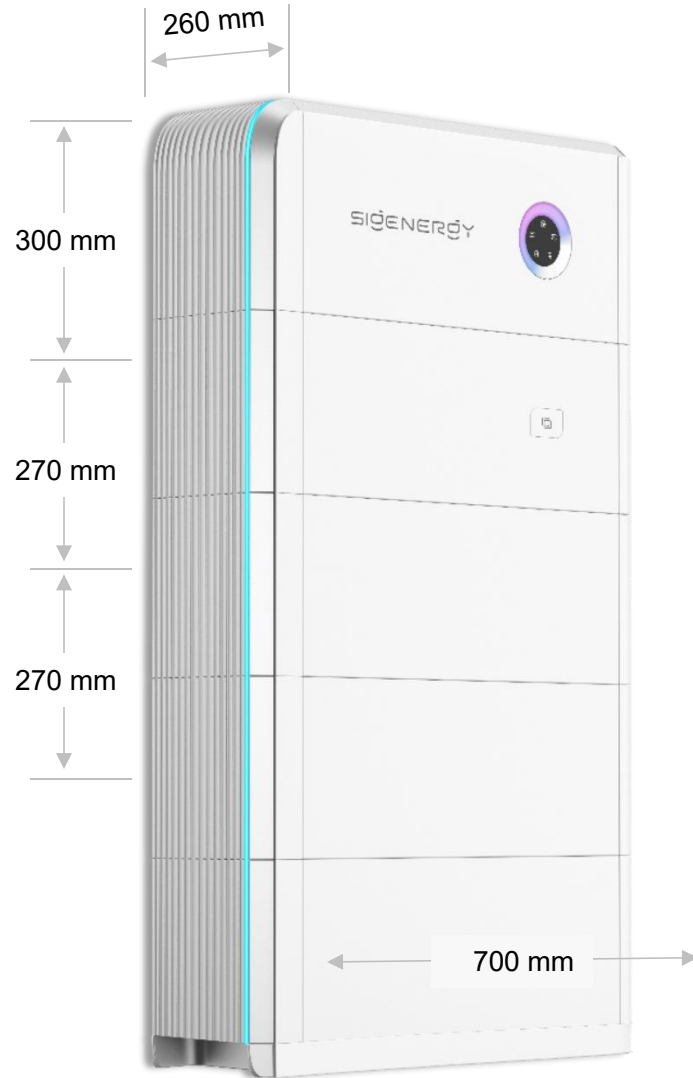
Multiple
systems supported in parallel connection



Sigenenergy is leading a new way of producing, storing, transferring, and consuming home energy. We provide a genuine all-in-one solar energy storage system, SigenStor. Its unique 5-in-One modular design integrates Solar Inverter, EV DC Charger, Battery PCS, Battery Pack, and EMS into one intelligent home energy system. Simple, robust and versatile, it will be a great addition to your home.

Start small, grow on demand

						
Controller	x 1	x 1	x 1	x 1	x 1	x 1
Battery	x 1	x 2	x 3	x 4	x 5	x 6
Max. Total Energy Capacity	8 kWh	16 kWh	24 kWh	32 kWh	40 kWh	48 kWh



Sigen Energy Controller or Sigen Storage Controller

for solar + storage system

for AC-coupled storage system

Single phase grid connection (kW)

3.0	3.68	4.0	4.6	5.0	6.0
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Three phase grid connection (kW)

5.0	6.0	8.0	10.0	12.0	15.0	17.0	20.0	25.0
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Sigen EV DC Charging Module (kW)
Ready for V2X

12.5	25
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Sigen Battery (kWh)

5.0	8.0
-----	-----

Support **1 – 6** batteries combined for a single stack

5 kWh – 480 kWh

Energy capacity range



Core Features

Deye grid-connected inverter 1-136kW

- ✓ Max. 8 MPP trackers, Max. efficiency up to 98.9%
- ✓ High DC/AC ratio 1.5 times for more yields
- ✓ Wide output voltage range 277-520Vac
- ✓ Zero export application, response speed within 0.5S
- ✓ T-type three-level topology and enhanced SVPWM
- ✓ Type II DC / AC SPD, frequency droop control technology
- ✓ Max. DC input current of 16A/string, adapt to 600W solar panel
- ✓ String intelligent monitoring (optional), Ani-PID function (Optional)



Deye



Single Phase Hybrid Inverter



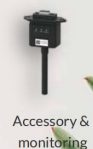
Three Phase String Inverter



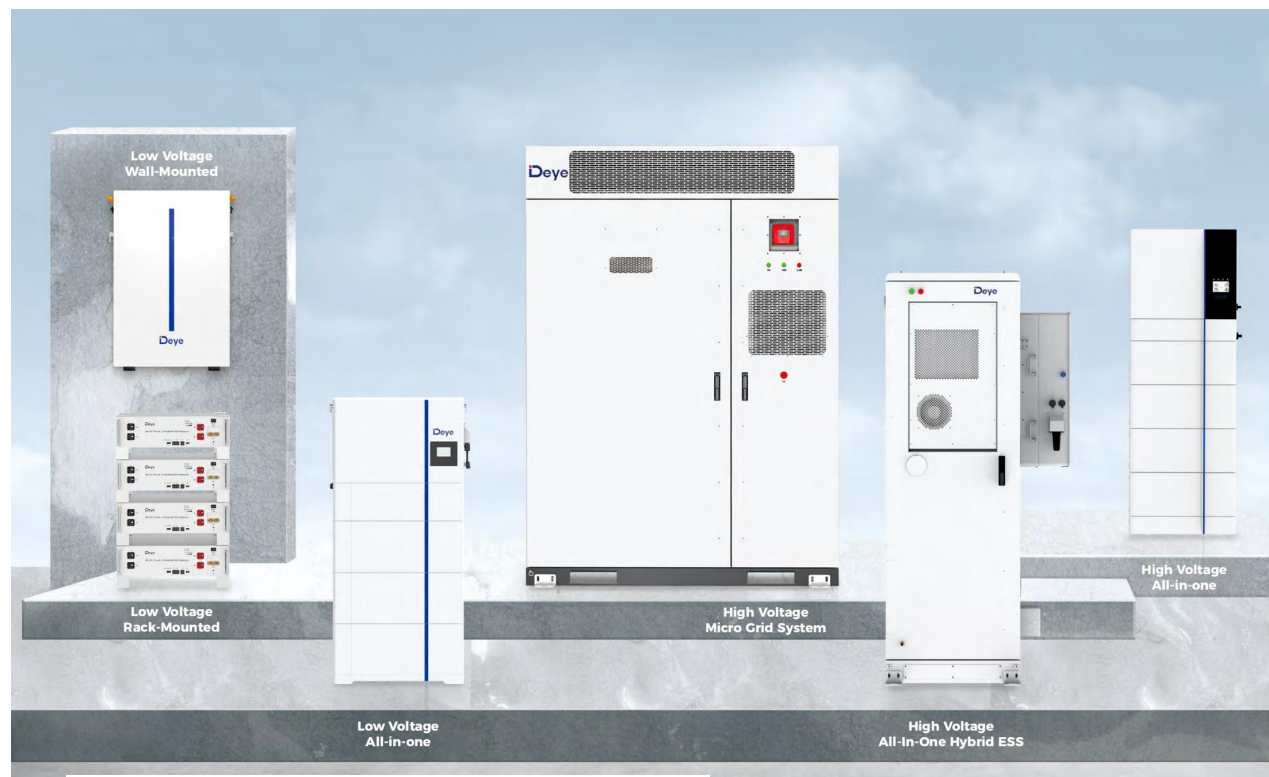
Single Phase String Inverter



Three Phase Hybrid Inverter



Accessory & monitoring



- ▶ 48KW
- ▶ Lebanon
- ▶ SUN-12K-SG



- ▶ 72KW
- ▶ Lebanon
- ▶ SUN-12K-SG



- ▶ 24KW
- ▶ Philippines
- ▶ SUN-8K-SG



- ▶ 48KW
- ▶ Lebanon
- ▶ SUN-12K-SG



EOS series

Battery module:

SR-EOS05B(5.12kWh)

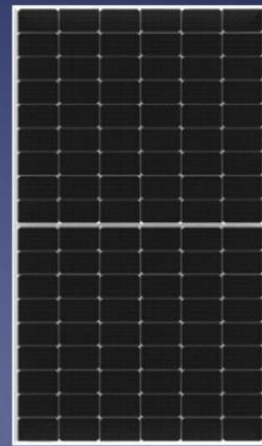
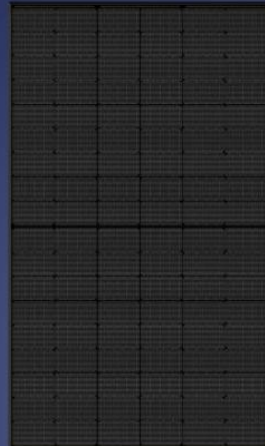
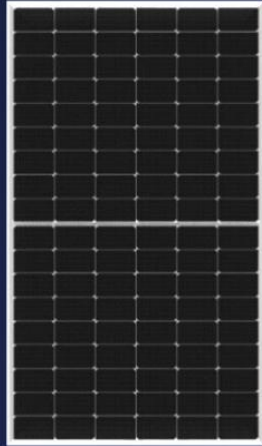
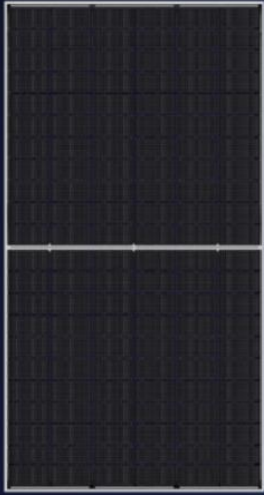
SR-EOS10B(10.24kWh)

SR-EOS15B(16.07kWh)

- Supports wall or floor mounting
- Up to 16 in parallel connection, expand to 257.12kWh
- Min. width of just 19.1cm, saving space in the home
- Compatible with many brands of inverter protocols
- Support Wifi and BT view real-time data through APP
- SR-EOS15B supports secondary circuit breaker protection



TIGER Neo 2023 Tiger-Neo New Products



JKMxxxN-66HL4M-BDV	JKMxxxN-54HL4R-(V)	JKMxxxN-54HL4R-B	JKMxxxN-54HL4R-BDV*
600-620W	435-450W	430-445W	425-440W
22.21-23.14%	21.77-22.52%	21.52-22.27%	21.27-22.02%
2382*1134 mm	1762*1134mm	1762*1134mm	1762*1134mm
66P	54P	54P	54P
Bifacial Dual-glass	Mono-facial	Mono-facial All Black	Bifacial Dual-glass

TOPCon technology

- Higher power
- Higher efficiency
- Lower degradation
- Higher bifaciality

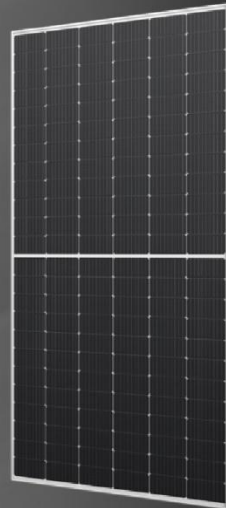
*Non-mainstream product

Every LONGi's new product spearheads the transformation of the photovoltaics industry and becomes a new benchmark for the entire industry.

Optimal Size

Optimal Scenario:
Sensitive in initial investment

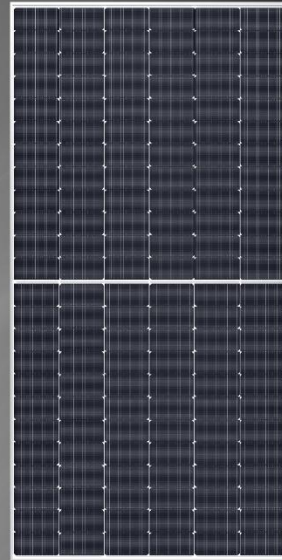
Hi-MO 5



Leading Value

Optimal Scenario:
High surface reflectivity
High environmental temperature
High labor costs

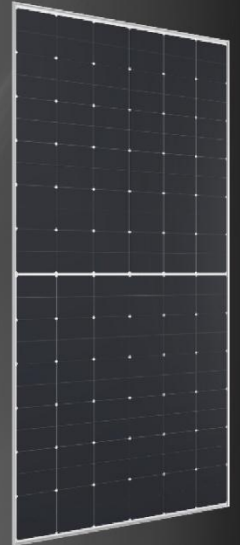
Hi-MO 7



Technology for Beauty

Star product for DG
Optimal Scenario for Utility:
Low surface reflectivity
High environmental temperature
High labor costs

Hi-MO 6

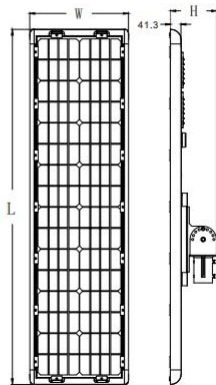


SUNPLUS SOLAR LED STREET LIGHT



LUXEON 5050

180 Lm/W



Performance Parameters

Power	60W/100W
Chip brand	LUXEON 5050
Beam Angle	150°/6.5°
Luminous efficiency	≥ 180lm/W
CRI	>70
Control Mode	Light Control + Time Control + Motion Sensor Control
Product Dimension	1023x373x174mm/ 1341x373x174mm
CCT:	2700-3000K /4000-4500K /5000-6500K
Operational Condition Temperature:	-10°C-45°C Humidity: 10%-90%RH

SUNLUX SOLAR LED STREET LIGHT

LUXEON 5050/20-60W

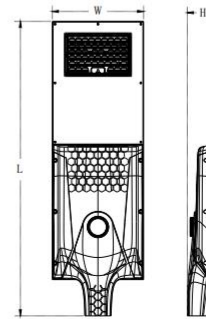
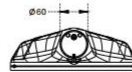


180 Lm/W

Sensor

Performance Parameters

Power	20W/40W/60W
Chip brand	LUXEON 5050
Beam Angle	150°/6.5°
Luminous efficiency	≥ 180lm/W
CRI	>70
Control Mode	Light Sensor Control + Time Control + Motion Sensor Control
Product Dimension	785x283x95mm/ 913x283x95mm/ 1041x283x95mm
CCT:	2700-3000K /4000-4500K /5000-6500K
Operational Condition Temperature:	-10°C-45°C Humidity: 10%-90%RH



LED ROAD LIGHTING



Features

1. The lamp adopts integrated structure design, with better heat dissipation design and longer life.
2. Using LUXEON 5050 lamp beads, the whole lighting effect is up to 180lm/W.
3. The solar panel is made of monocrystalline silicon, with a higher conversion efficiency, up to 22%, and a service life of up to 25 years.
4. Using the most advanced MPPT tracking control technology to improve system efficiency and reduce costs.
5. It has functions of light control, time control, dimming, intelligent power saving + morning light.
6. Solar controller built-in lightning protection module.
7. Using ternary lithium battery technology, the battery capacity is high.
8. 365 days uninterrupted power.
9. Three control model: Time control + light sensor control + motion sensor control.



Solar panel charges in sunny daytime. Light works at night with the power stored by battery.



When people leaves 5-10M away, the light will dim to save power.



When people comes 5-10M near, the light will turn on with full brightness.

Applications

1. Suitable for the highways, urban roads and secondary roads, stadiums, sidewalks, residential areas, industrial areas, squares, parks, schools, villas, gardens and other places.

Agenda

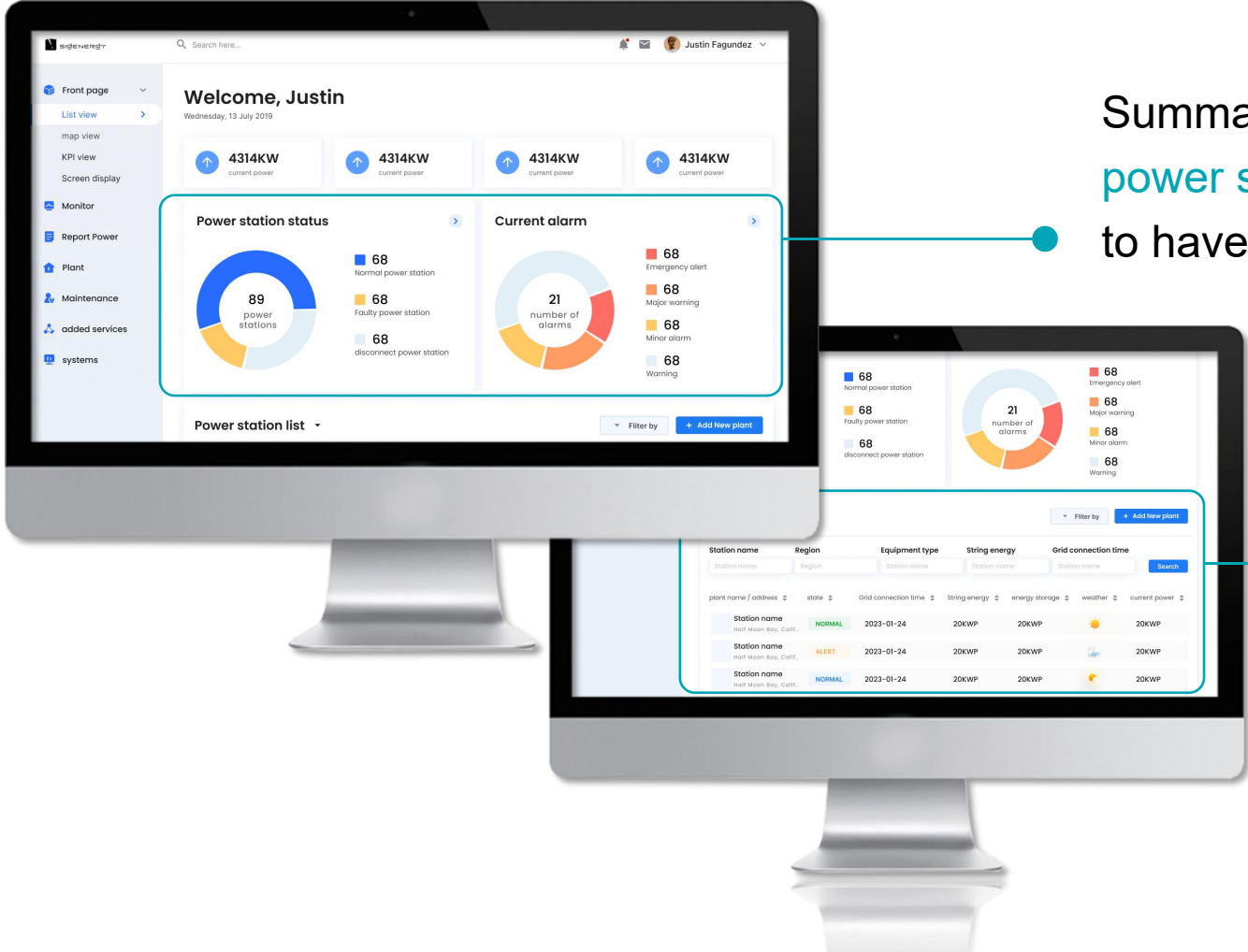
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Sigen Cloud: One screen to track all

Manage and track all power plants on one screen

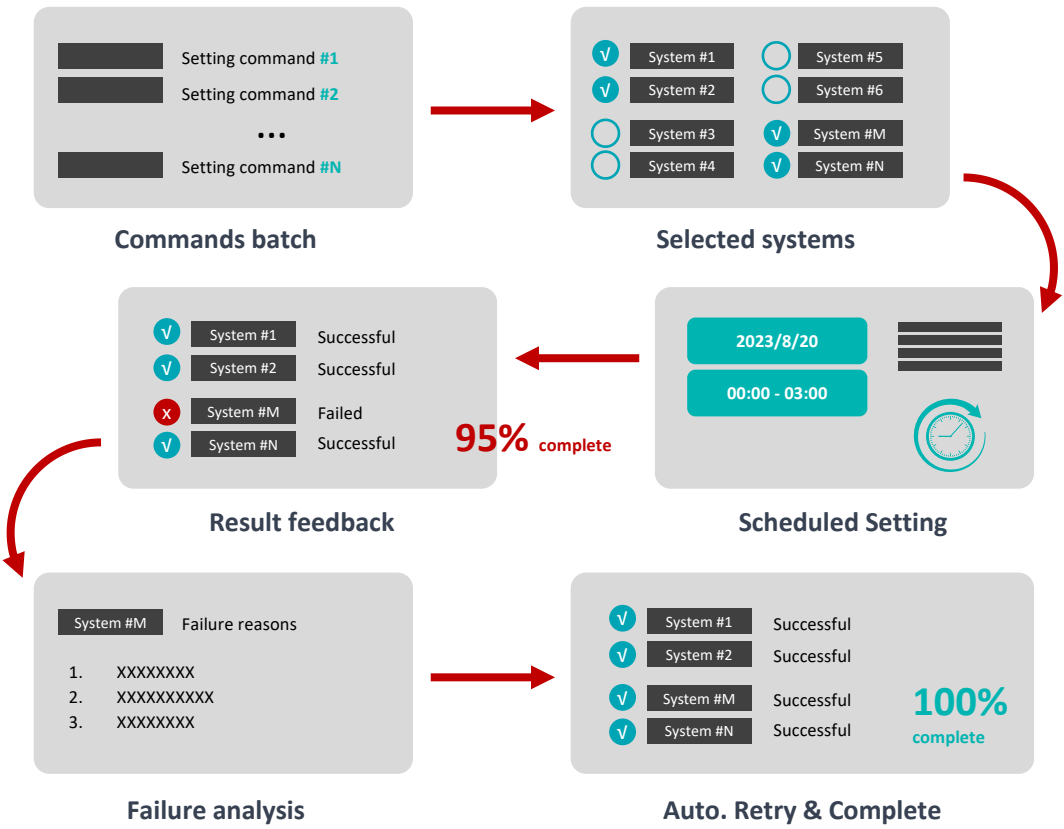
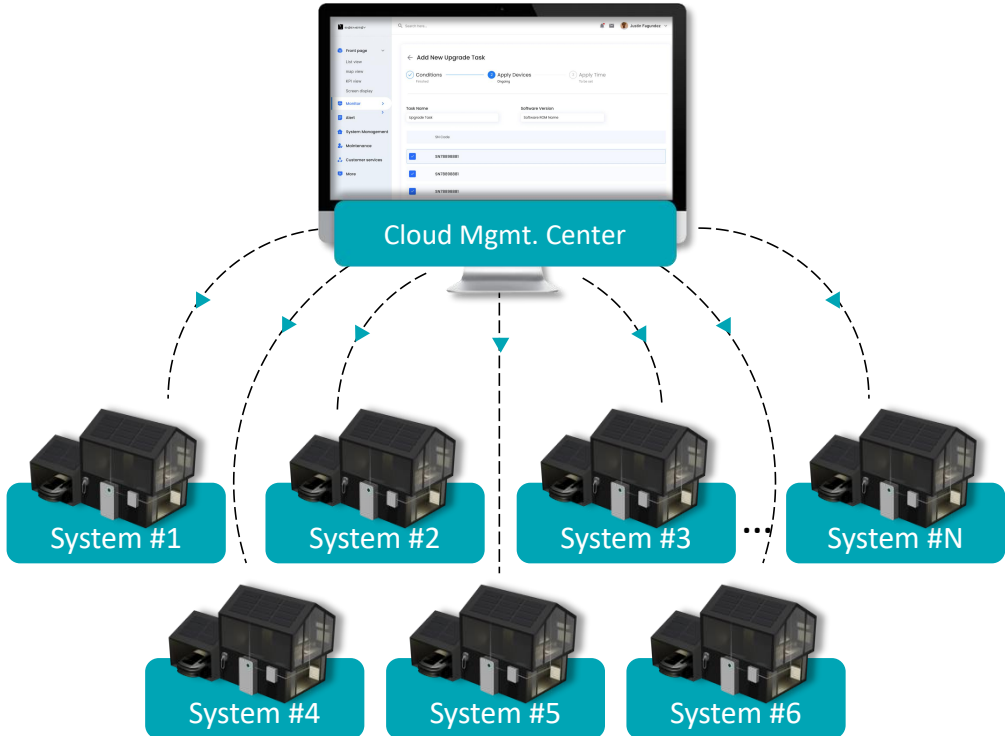
Summary donut chart of power station status & current alarm to have a clear overview of all power plants

A list of all power plants' operation status



Remote batch configuration supported

Centralized management on customized scope of devices



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Warranty terms

- *Entire Replacement;*
- *Quick Recovery within 24h;*
- *5+ years performance warranty for whole system;*

Product	Product Warranty
Battery	5 years
Energy Controller	5 years
Solar Panels	12 Years

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ACEN San Marcelino 383MWp Project
Philippines' largest PV plant under construction
Passed VRE Test in 2 days



PAVI Bataan 20 MW Project
Undergoing construction
Implements a skid solution



NV Vogt SE4 8.84 MWp
Located in Armenia, Tarlac
0.5% failure rate from 2016 onwards



Cabanatuan 10 MW Project
Located in Nueva Ecija
0.2% failure rate after 5 years

Residential Energy Storage



Project ASF48100U200-H with EOS48-5.0A-E0
 Application Residential Energy Storage
 Address Japan



Project Solar Charge Controller & Inverter Solutions
 Application Residential Energy Storage
 Address Philippines

Solar Charge Controller & Inverter



HFP Series



Slovenia



HF4850U80-H



United States



HF Series



Bulgaria



ASF48100S200-H+EOS10B



Slovenia



HF Series



Turkey



HES Series



Australia



HF Series



Australia



HF2430U60-100



Puerto Rico



HFP4850S80-H



Iraq

Solar LED Street Light

50W All-In-One Solar LED Street light In Australia



Sword LED Street Light In China



More Show Cases

<https://www.sigenergy.com/en/stories>

<https://www.srnesolar.com/article/Case.html>

<https://www.longi.com/en/cases/>

<https://www.leyond.com.cn/al>

Thank you.

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Enjoy Green Energy

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