

Ticarethane ve Sanayi Tesislerine Entegre Batarya Çözümleri

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Chint Power | Build Leading Smart PV-ESS Generators



Scope of Supply: **PV inverters and BESS products and solutions**

Cumulative Shipments: **PV 55.5GW+ BESS 3.5GWh+**

2009-2012

- 2009-Chint Power Founded
- 2012-China PV market share **13%**

2013-2020

- **2015-USA #1 market share for 3-phase String Inverters**
- **2016-Start BESS business**
- 2017-First energy storage project officially was put into operation in Songjiang, Shanghai
- 2019-Selected as a supplier of Tesla PV inverters
- 2019-Passed the qualification audit for Tesla's approved supplier list
- 2020-World's largest 275kW string inverter

2021-2022

- 2021-Thailand production base opened
- **2021-#1 Inverter market share in Korea**
- Tibet 50MWh High Altitude ESS Project
- Wenzhou Taihan 550MW-Asia's Largest Offshore PV Power Station
- 2022-Ranked #5 stock market listed China PV inverter enterprise

2023-2024

- 2023-Ranked No.1 globally in Bloomberg Bankability 2023
- **World's highest energy density 5MWh 20ft liquid-cooled energy storage system**
- Launched high-power 320/350kW string inverters
- 2024-Maintained No.1 market share in North America for 10 consecutive years
- 2024-Maintained No.1 market share in South Korea for 3 consecutive years
- Zhejiang's first 50MW/100MWh tidal flat shared energy storage project

2025

- **Tier 1 Global PV Inverter Manufacturer & Energy Storage Integrator**
- **World's First Grid-Forming String Energy Storage Solution with UL/IEC Certification**
- **World's First Certification for 125kW/261kWh Outdoor Cabinet Open-Door Fire Resistance Test**
- Turkey's Largest Microgrid Project
- 300MW PV Power Station, Baise, Guangxi

New-Generation C&I Smart PV-ESS Generator



C&I Smart PV-ESS Generator Solutions Roadmap

01

30kW/73.7kWh

Japan

Peak-Valley Arbitrage & PV-ESS
Microgrid



02

125kW/261kWh Series

China/Europe/UL/Japan.etc

Seamless switch&PV-ESS-Diesel
microgrid



03

244kW/488kWh Series

Global market



Value Orientation

3C

**Volume & Capacity
Growth**

**PV-ESS
Synergy**

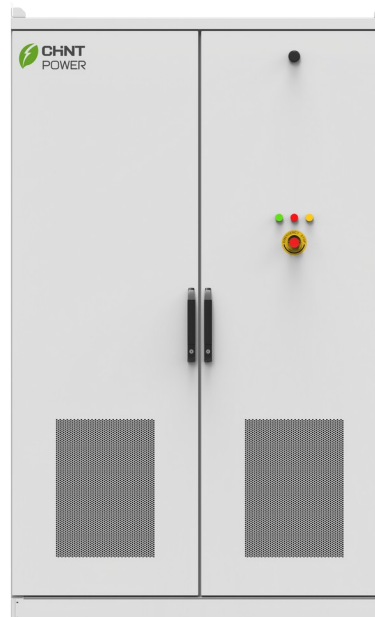


Solution Introduction - Components



CPS ES-125kW/261kWh
CPS ES-244kW/488kWh

- ◆ New C5 System Designer
- ◆ 3P4W with 110% Unbalance Output
- ◆ AIO for Simple & Reliable Installation



CPS STS 500K

- ◆ Support 4 125kW/261kWh Cabinet
- ◆ 20ms On-Off Grid Switch
- ◆ AC Couple with Inverters & Generators



CPS EMS C1000

- ◆ Integrated Energy Optimization Expert
- ◆ Revenue Agent for Time of Use, Self Consumption, VPP, Demand Charge etc.

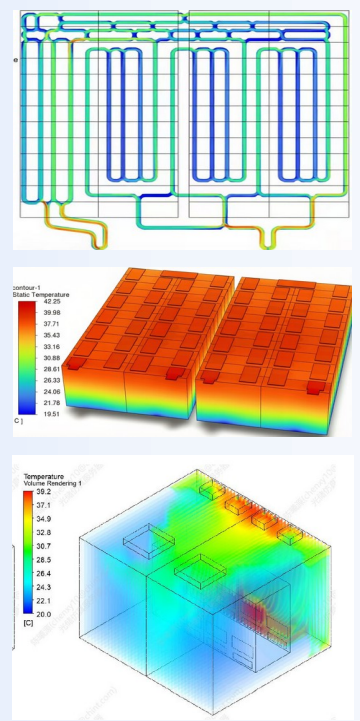
Elevated Performance——Value Orientation



Full-Lifecycle Safety Assurance

Design Safety

- Smart liquid - cooling design with cell temperature difference **below 5°C**.
- Smart temperature control strategy cuts auxiliary power **by 6%**.

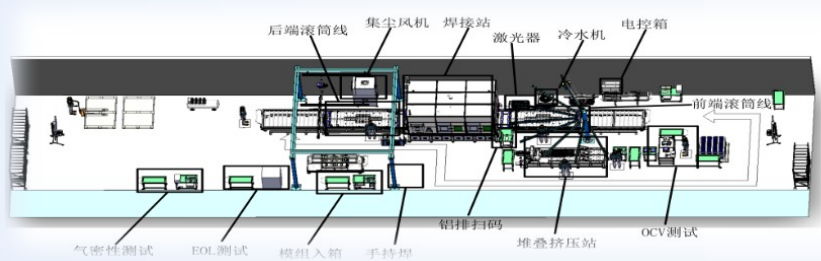


Operation Safety

- Customized AI inspection rules for each site to ensure the stable operation of the system.

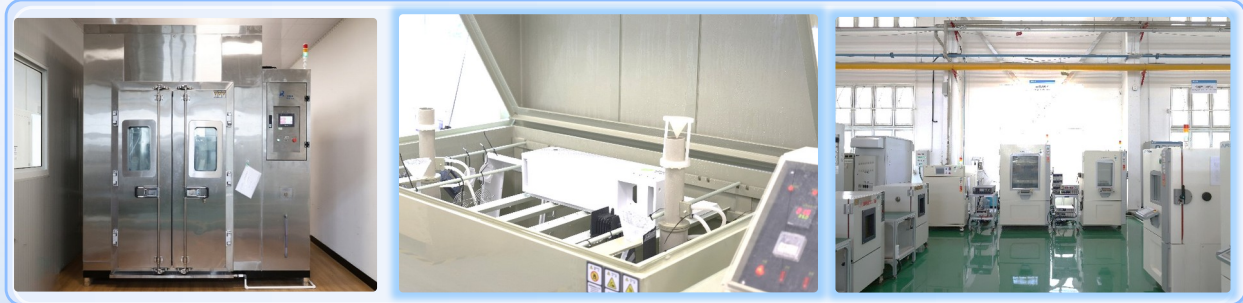
Inspection Safety

- The pilot production line **integrates 8 major processes** for brand new technology verification.

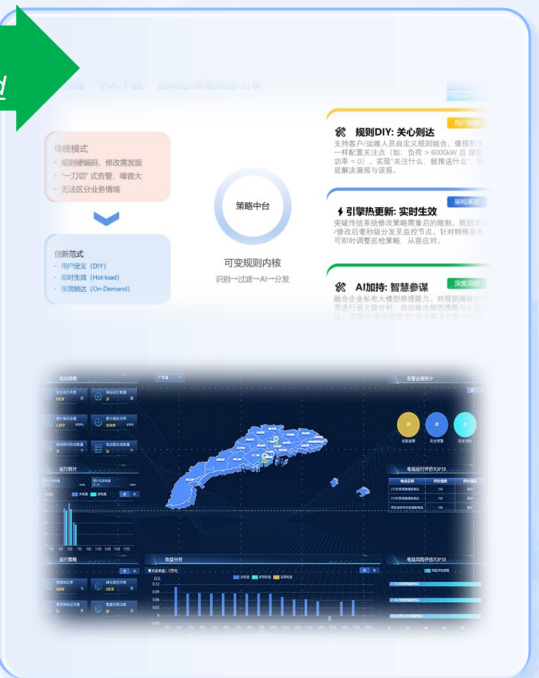


Production Safety

- **12-hour high-intensity aging test** for new products.
- **Automated production lines** in all five of its production bases worldwide.



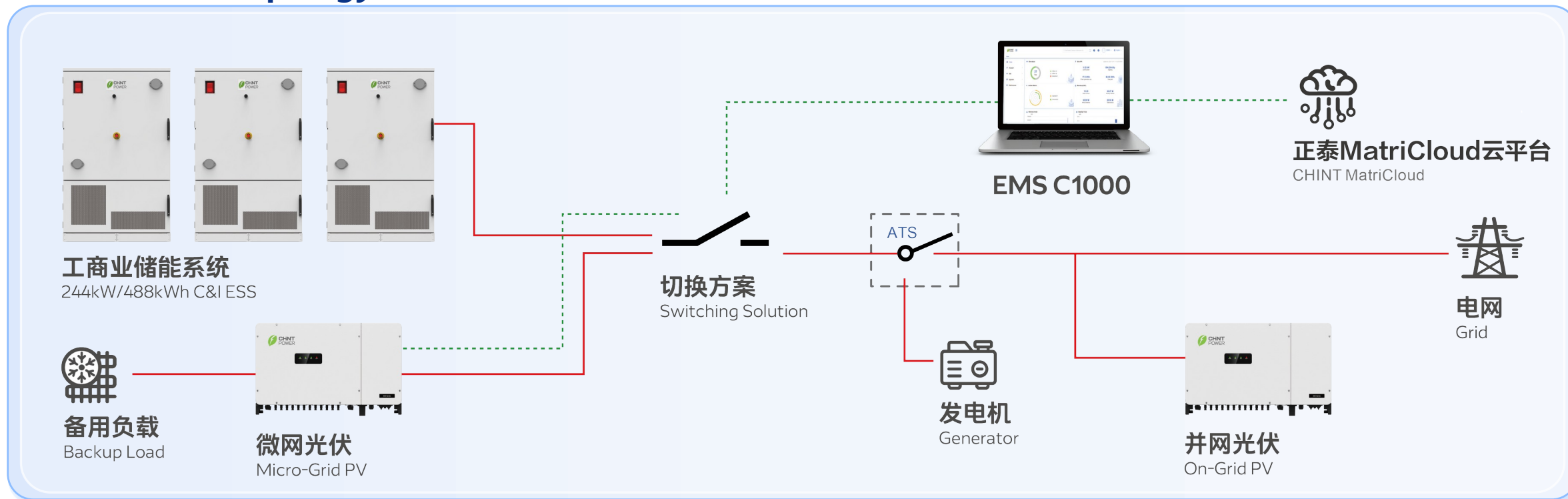
To Be Continued



New-Generation C&I Smart PV-ESS Generator



New Solution Topology



CPS ESA-125kW/488kWhLF-H
CPS ESA-244kW/488kWhLF-H

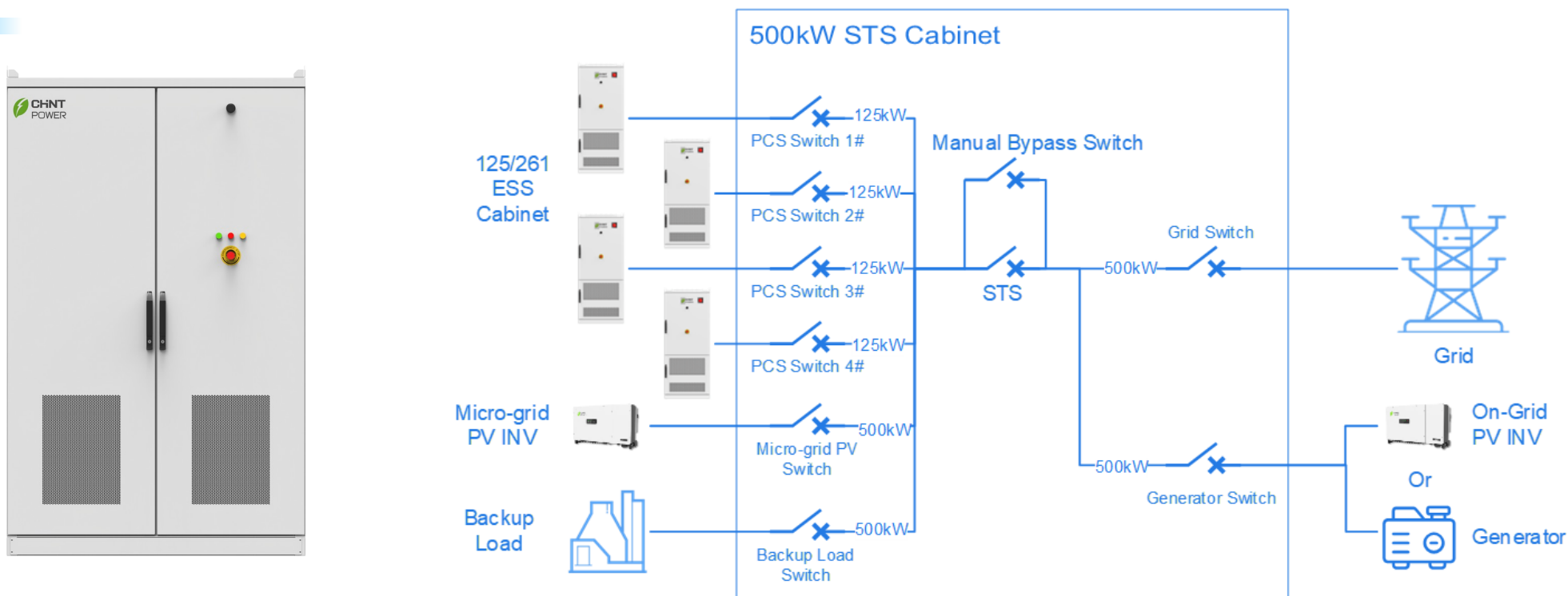
**CPS On&Off-grid
Switching Solution**

**CPS 50~125kW
C&I Inverters**

EMS C1000

MatriCloud

CPS STS500K - Datasheet



	CPS STS 500K
Max. Grid Power	500kW
Max.Gen or On-Grid PV Power	500kW
Max. Backup Load Power & Micro-Grid PV Power	500kW
Max. ESS Power	500kW
On/Off Grid Switch time	<20ms
IP Rating	IP54
Corrosion resistance	C3
Dimensions (W * D * H)	1500mm*1370mm*2400mm

Elevated Performance——PV-ESS Synergy



What Grid-Forming Capabilities Do Microgrids Require?»

Grid-Forming Control Algorithm

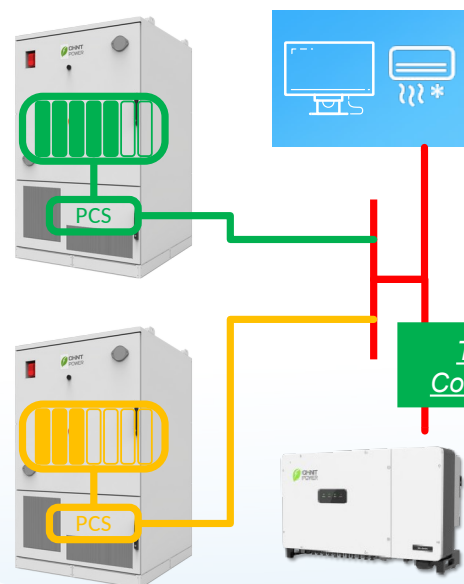
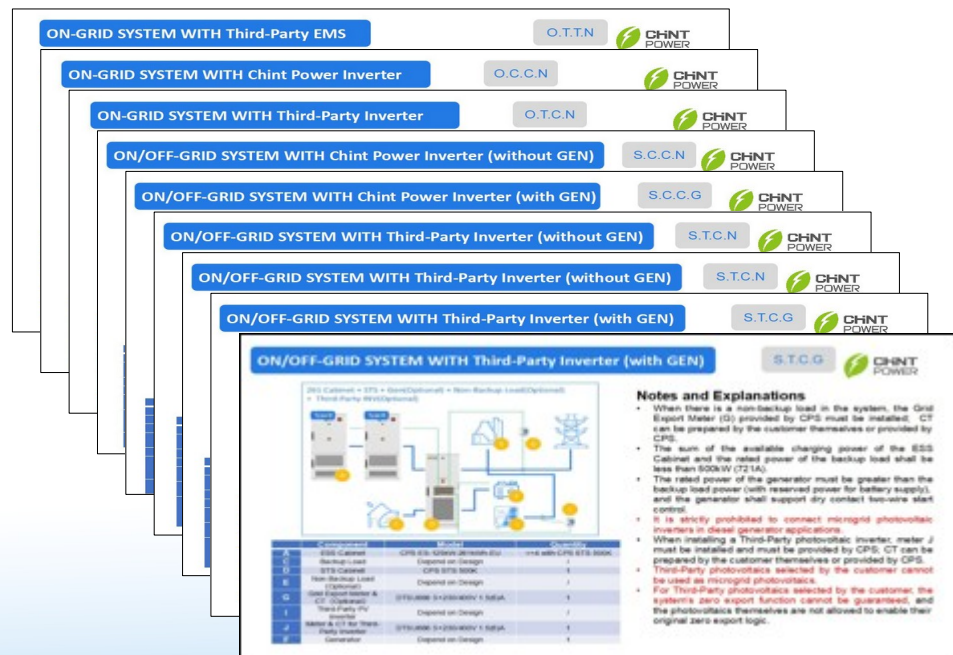
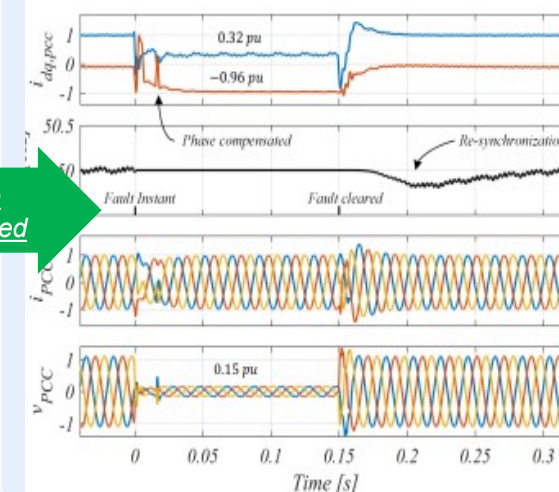
C&I microgrids need grid-forming MUCH MORE than utility plant»

- For utility plant, grid-forming function could enhance grid stability. However, other friends in the grid will help also.
- For C&I microgrid, PCS is **the only grid-forming power supply** which facing more off-grid scenarios and multi-source like solar inverters or GENs.

Imperceptible Generator Cut-in & Cut-out

- With the grid-forming PCS mode, generators can be seamlessly connected and disconnected without additional regulation from the EMS.
- No mode change between PQ mode or VF mode.

A more convenient, cheaper and more stable PV-ESS-GEN system



Off-grid Energy Distribution

- Divide different powers to Cabinets with different SOC's. It's as simple as the grid - connected mode.
 - Low-energy cabinets charge more and discharge less, and high-energy ones charge less and discharge more, avoiding impaired system load capacity due to individual unit energy depletion or saturation.

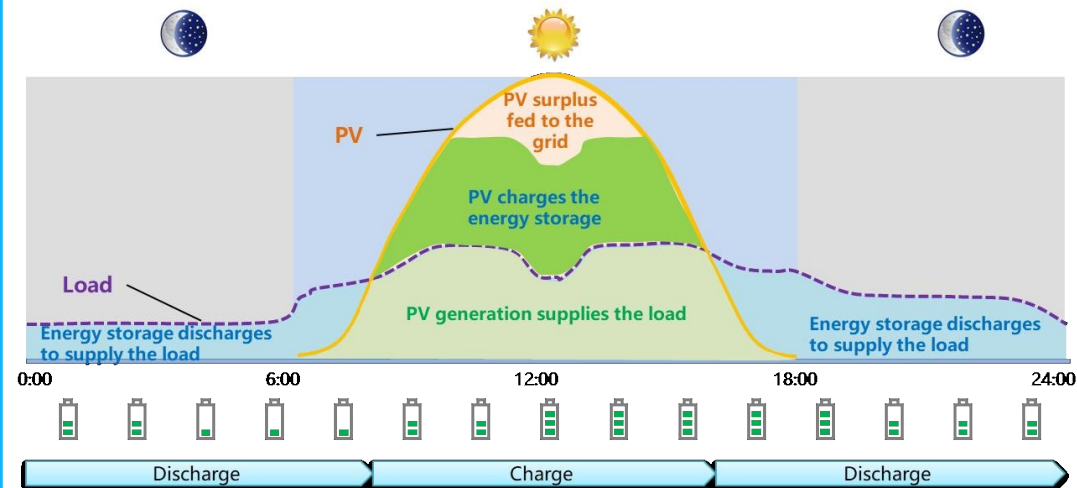
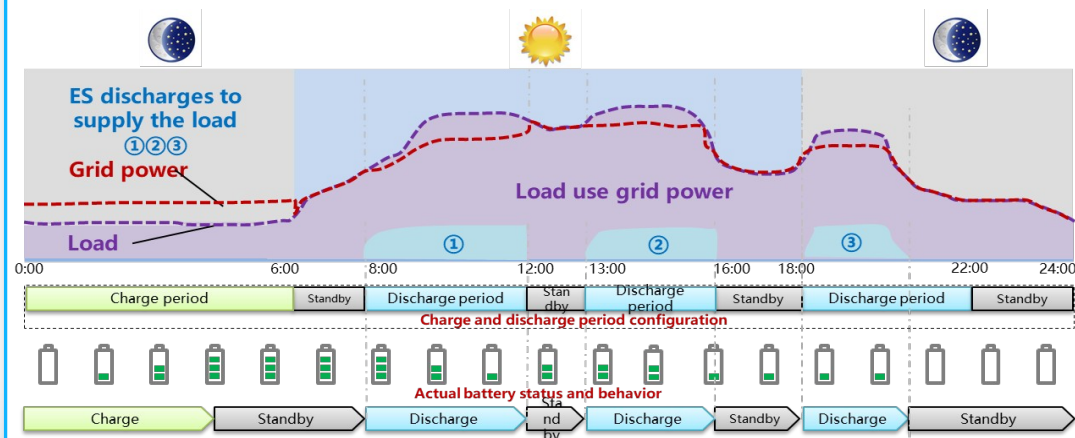
Enhance the energy efficiency of parallel-connected systems, streamline energy distribution algorithms, and prolong the backup power duration of systems operating under complex off-grid conditions.

CPS EMS C1000 - Function & Scenarios



Peak Shaving & Time of Use

- Adjust the charge - discharge strategy according to the electric bill
 - Reduce the energy bill
- Available with any scenarios includes ESS cabinet



- Charge ESS with excess PV generated during daytime
 - Use consumption instead of export to improve the PV generation value
- Suitable for scenarios which includes PV system with a low export price.

Self Consumption



CPS EMS C1000



Site Name/Gateway Sn/Inverter Sn

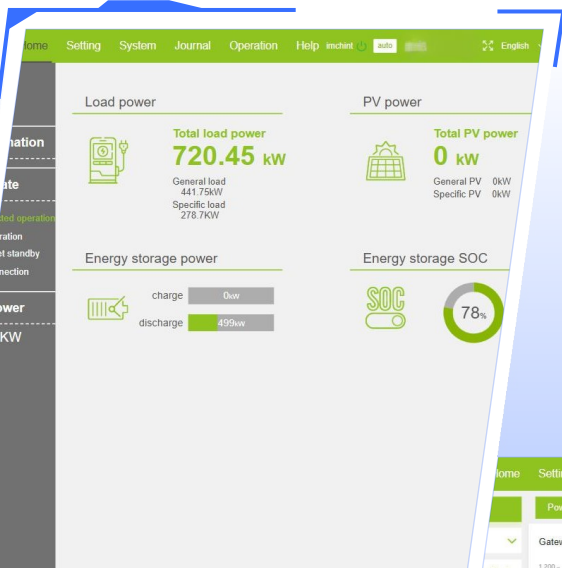
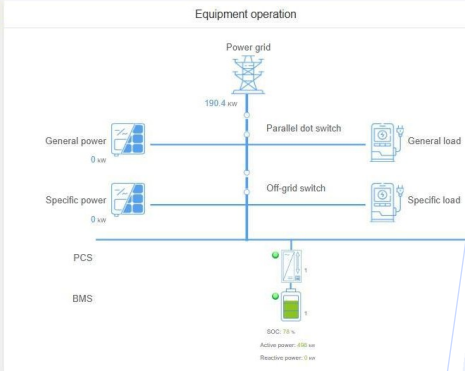
Search by site name

Site name	Capacity	Load Power	Photovoltaic Power	Grid Power	Charge/Discharge Power	SOC
	261 kWp	0kW	0kW	0kW	0kW	0%
	261 kWp	0kW	0kW	0kW	0kW	38.9%
	261 kWp	0kW	0kW	0kW	0kW	81.5%
	215 kWp	7.9kW	0kW	2.9kW	9kW	81%
	860 kWp	677.5kW	0kW	677.5kW	0kW	9%
	860 kWp	930.48kW	0kW	530.88kW	399.6kW	2%
	10000 kWp	4840.18kW	0kW	5304kW	-360.8kW	0%
	5000 kWp	5298kW	0kW	5298kW	0kW	0%
	2200 kWp	1014.4kW	0kW	715kW	299kW	0%
	0 kWp	37.98kW	12.8kW	10kW	15.7kW	0%

Total 11 10/page 1 2 3 On to 1

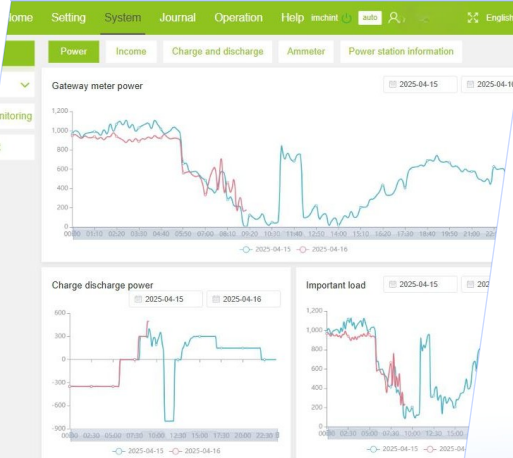
Project List

System Topology



Strategy Formulation

Remote Maintenance



THANKS FOR WATCHING

