

Q.HOME+ TECHNICAL OVERVIEW (Ft. HECO SDP Capability)

Q CELLS

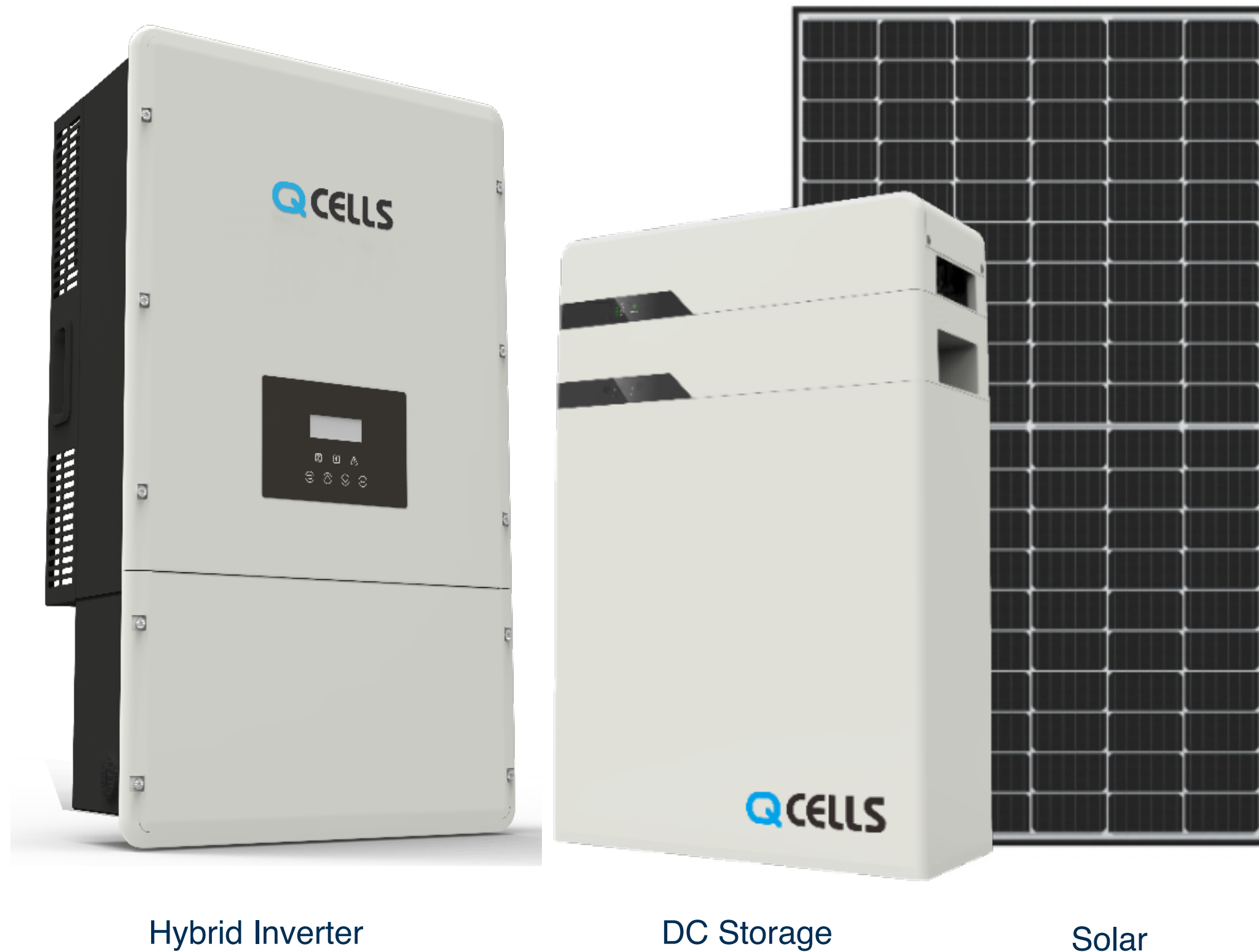
Welcome Everyone!

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Q.HOME+ ESS HYB-G1

Q CELLS' new modular energy storage system for North America's residential market

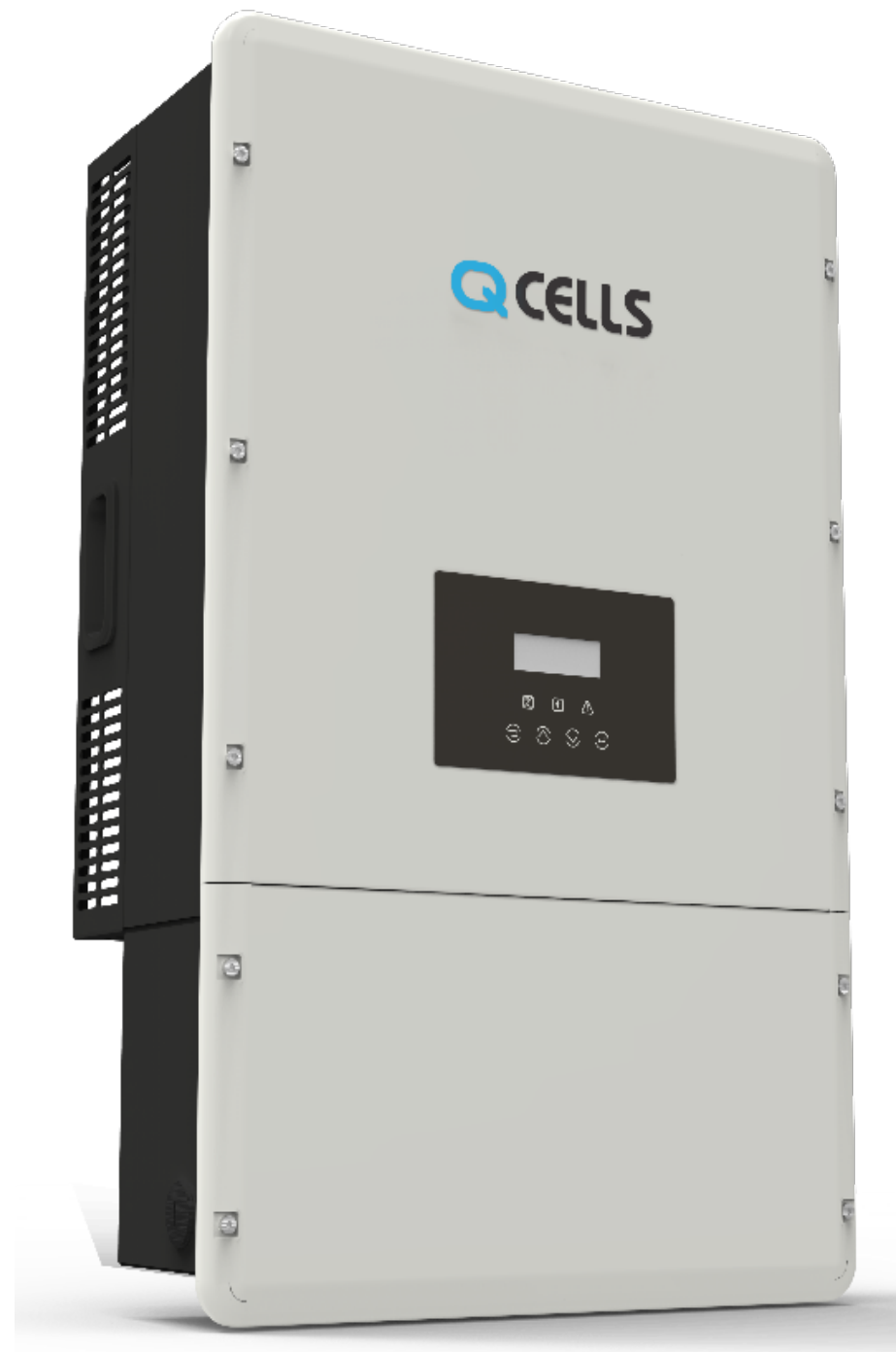


- ⊕ AC and DC couple solutions for new or retrofit installation
- ⊕ Modular design, adaptable, and lighter for quicker installation
- ⊕ Remote control monitoring, easy maintenance (no moving parts), outdoor rated and Q-CELLS reliable service network.
- ⊕ Inverter power from 6 kW to 8.6 kW
- ⊕ Scalable storage capacity from 4.5 kWh to 18.9 kWh
- ⊕ Backup power up to 7.5 kW during a power outage
- ⊕ 10-year full system warranty supported by Q-CELLS
- ⊕ 90% Depth of Discharge (DoD) Lithium Ion Battery



Monitoring portal
– Web/Mobile app

Q.HOME+ ESS HYB-G1



Hybrid AC or DC Coupled
Available on:
6.0 kW, 7.0 kW, 7.6 kW and 8.6 kW
(rated power)



Capacity: 4.5 or 6.3 kWh
Power: 2.5 kW



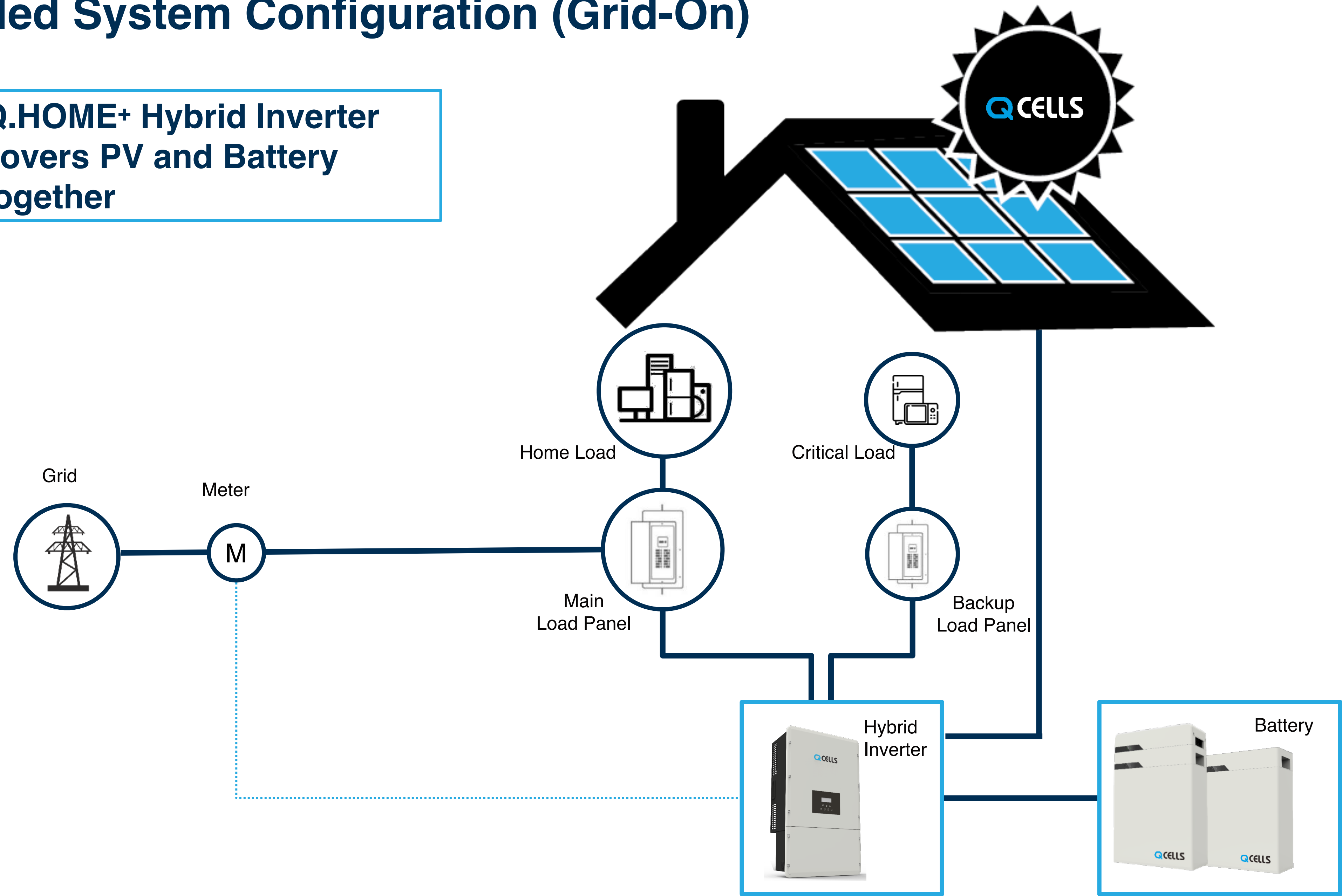
Capacity: 9 or 12.6 kWh
Power: 5 kW



Capacity: 13.5 or 18.9 kWh
Power: 7.5 kW

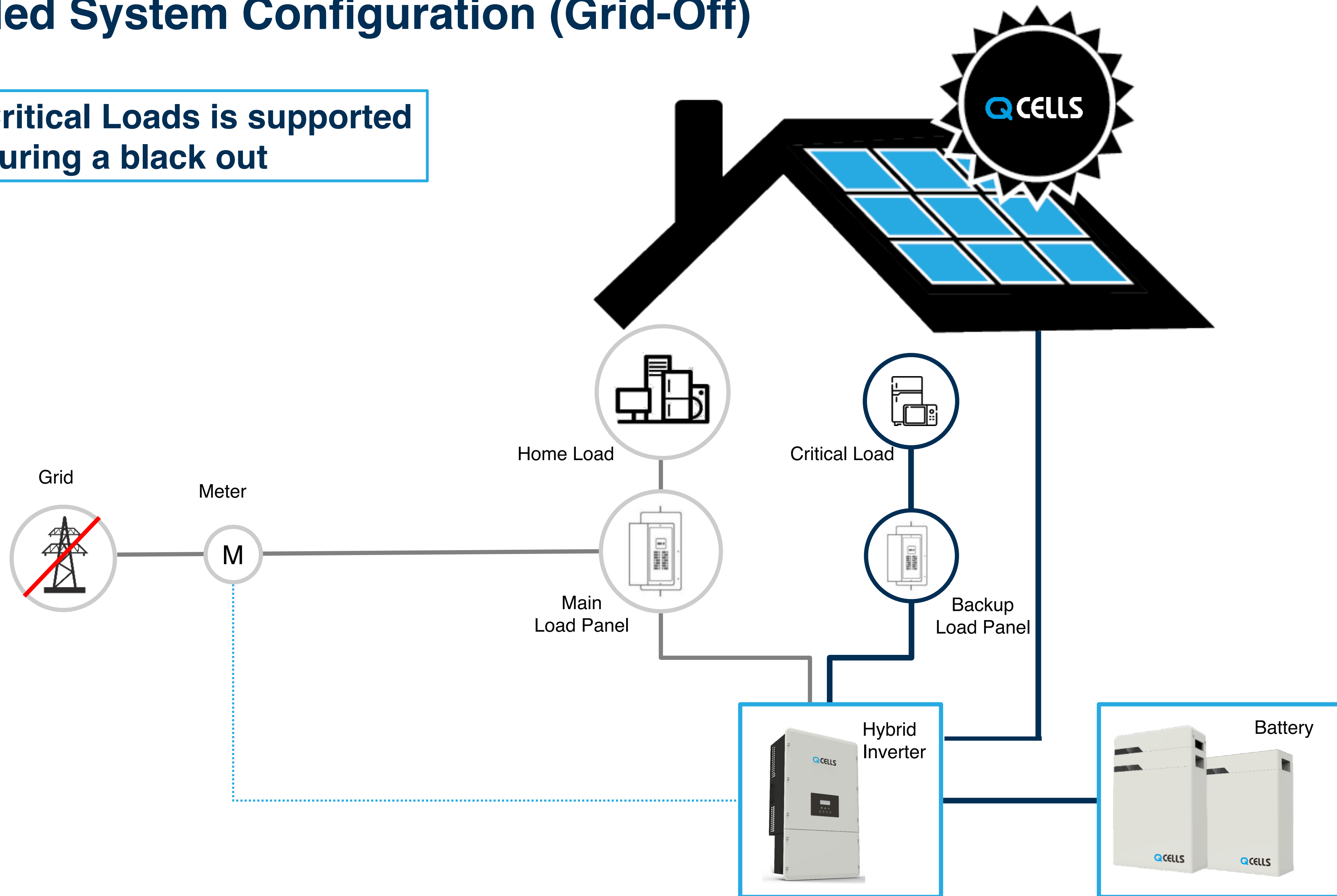
DC-coupled System Configuration (Grid-On)

Q.HOME+ Hybrid Inverter covers PV and Battery together



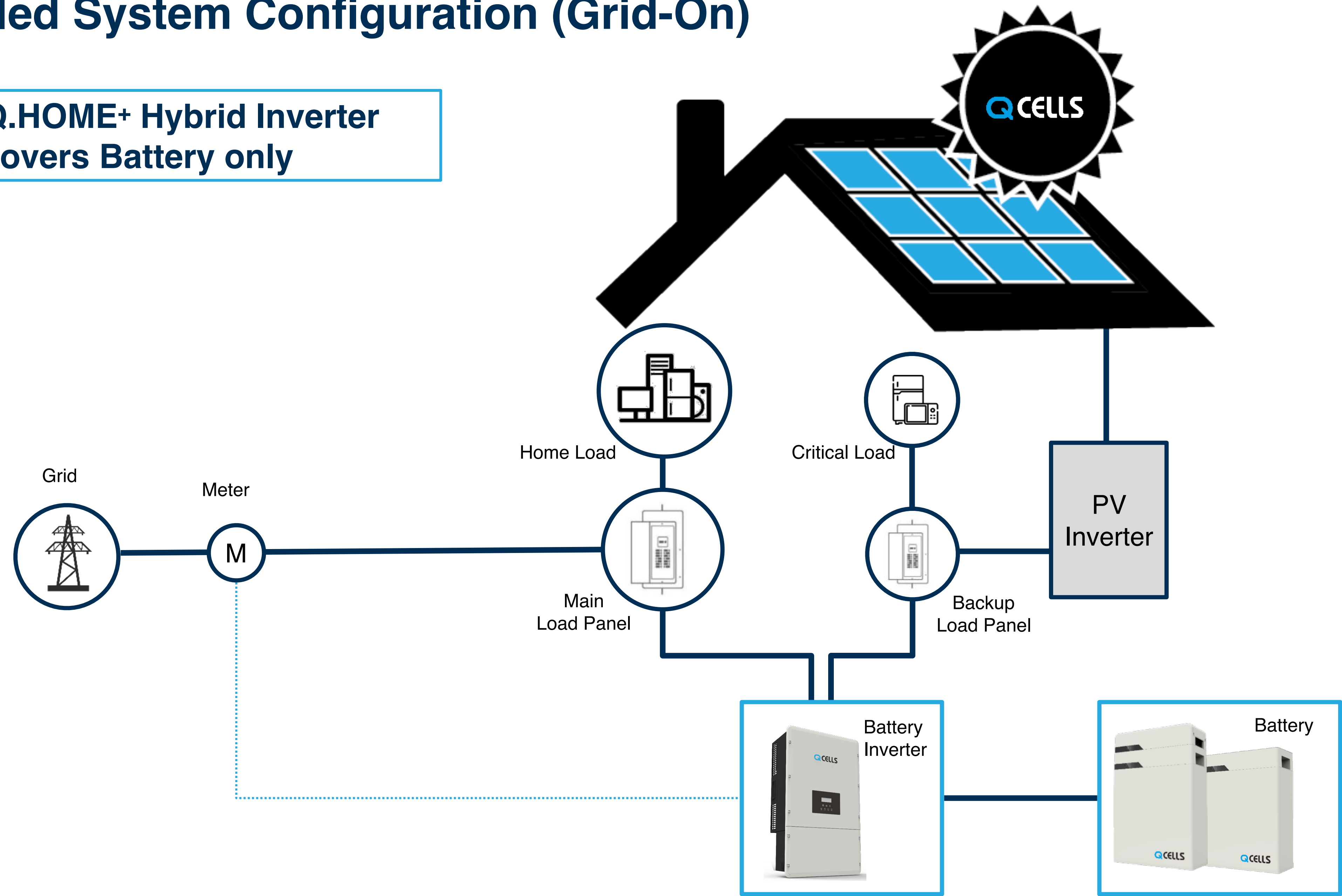
DC-coupled System Configuration (Grid-Off)

Critical Loads is supported during a black out



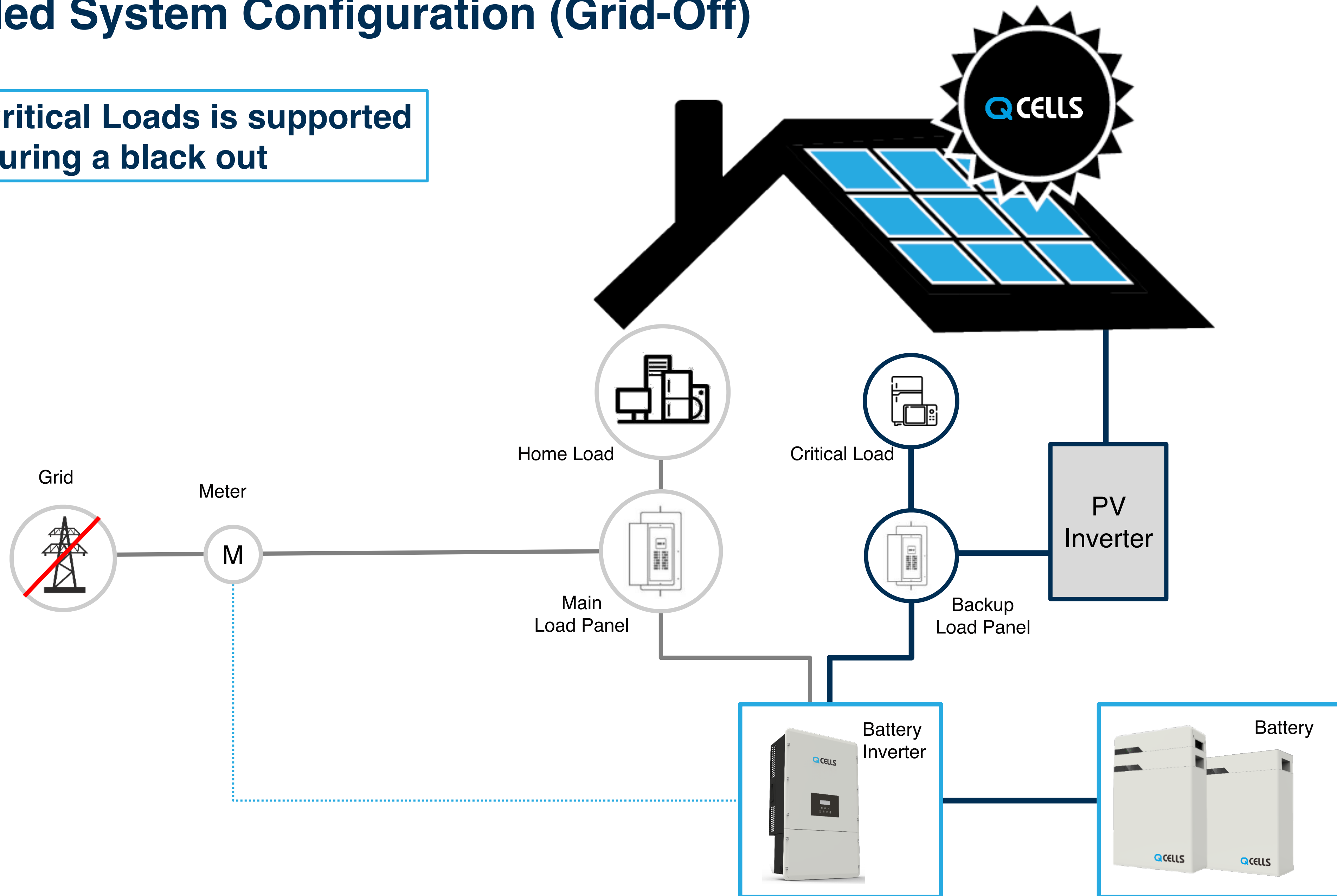
AC-coupled System Configuration (Grid-On)

Q.HOME+ Hybrid Inverter covers Battery only



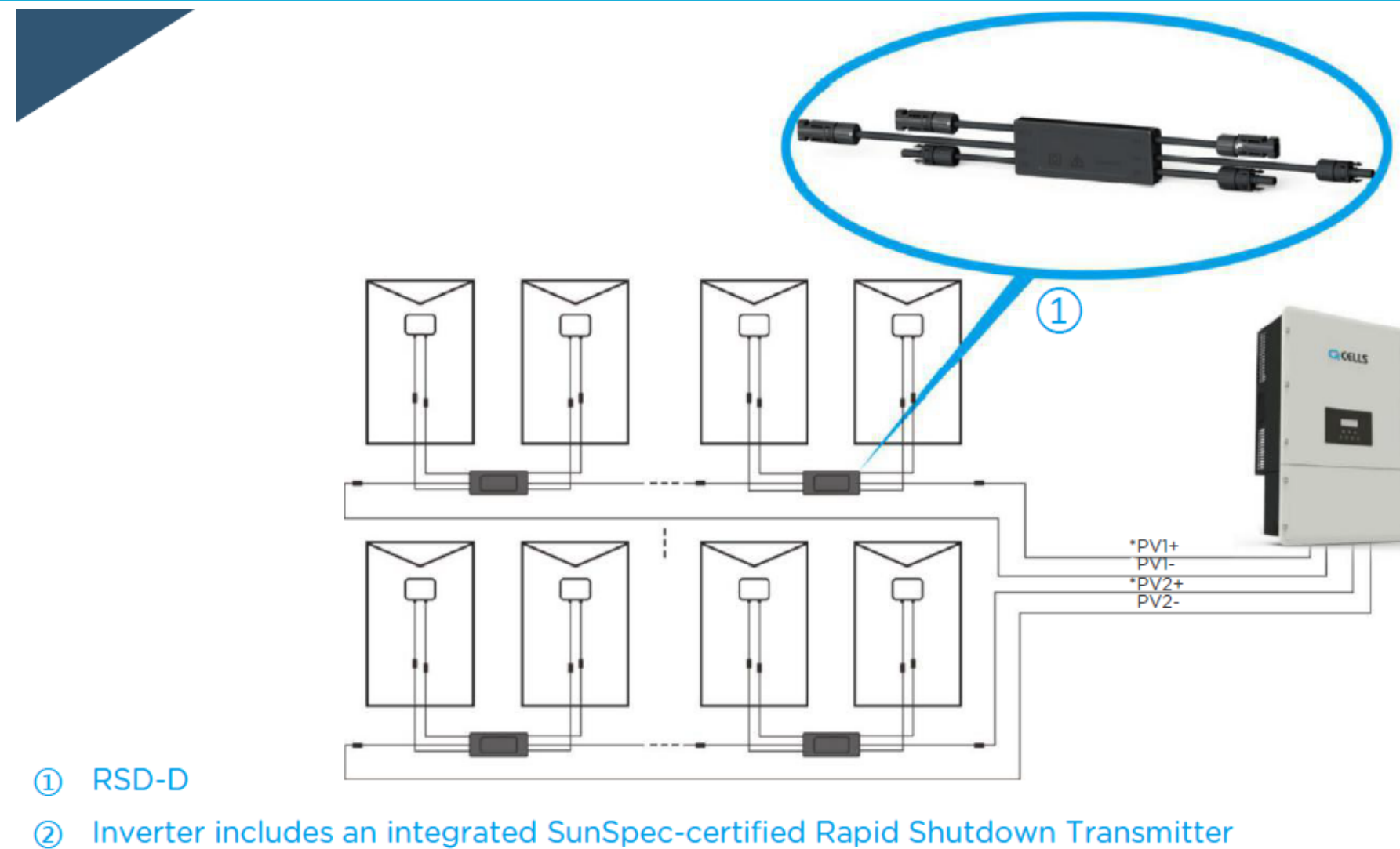
AC-coupled System Configuration (Grid-Off)

Critical Loads is supported during a black out



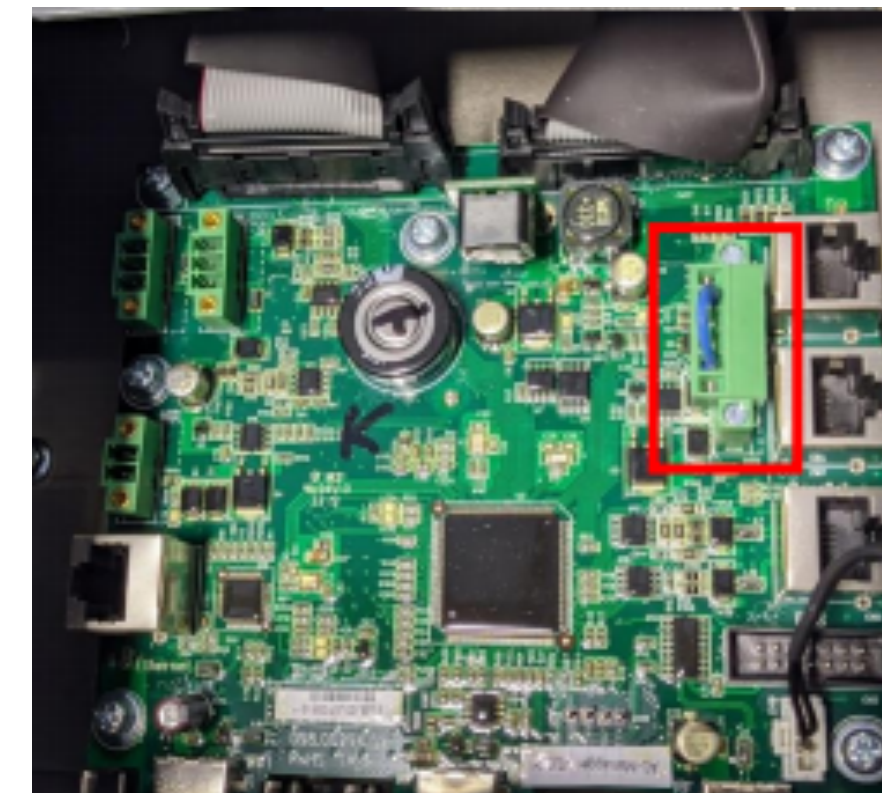
DC Coupled

- Current systems comes with integrated RSD transmitter
- Current systems comes with Q CELLS RSD receiver.
- Compatible 3rd party RSD receivers:
 - APSmart
 - TIGO



AC Coupled

- PV inverters connected to main panel usually have necessary RSD hardware in place.
- If PV inverter is connected to the backup load panel, a **separate (not sold with the system) emergency stop button connected to Q.HOME inverter comm. Board** should be used to activate RSD system.



Emergency
Stop button
connection
block

TECHNICAL SPECIFICATIONS



Inverter



Battery Module

Inverter

Type of Inverter		DC (Solar+ESS) or AC Coupled(ESS)			
Utility interface (AC out put)					
	Nominal AC Power (kVA)	6.0	7.0	7.6	8.6
	Nominal AC Voltage(V)	120 / 240 Split Phase (211~264)			
PV input					
	Max PV input Power (kW)	7.2	10.5	10.6	13.7
	# of MPPT	2	3	3	4
Back up Load output Capability (with Auto-transformer)					
	Maximum backup load (kW) with 3 battery modules	6.0	7.0	7.5	7.5
General					
	Dimension (W / H / D, in)	22.0 / 35.9 / 10.9			
	Weight (lbs)	130			
	Enclosure Rating	Outdoor rating (NEMA 4X)			
	Operating Temperature (°F)	-4 ~ 140			
	Mounting	Wall mounting			

Battery

Energy			
	Battery Pack Energy (kWh)	4.5	6.3
	Possible configuration of Energy (kWh)	4.5 / 9.0 / 13.5	6.3 / 12.6 / 18.9
General			
	Dimension (W / H / D, in)	18.3 / 23.1 / 7.6	
	Weight (lbs)	124.8	148.8
	Enclosure Rating	Outdoor rating (NEMA 3R)	
	Operating Temperature (°F)	14 ~ 113	

Safety Compliance

UL 9540, UL 1741.SA, UL 1642, UL 1973

HECO Scheduled Dispatch Program (SDP) provides an incentive to homeowners to purchase energy storage systems and inject a certain amount of power into the grid at specific times of the day.

The Q.HOME+ system has multiple Work Modes that allow the system to operate in several different ways, depending on what the homeowner wants and what the local utility is requiring.

A New Work Mode has been created in order to meet the requirements of the SDP with various parameters that can be used to fine tune the setting, all via the monitoring portal. Please follow the instructional document to properly configure the system.

- 6.0kW Inverter + 1/2/3 batteries MM	→	MM2021-033
- 7.6kW Inverter + 1/2/3 batteries MM	→	MM2021-034

Q.HOME+ APPLICATION FOR HECO SDP

PRE-CHECK

Ensure that the system has been properly installed and commissioned.

- Inverter screen on and all relevant indicator lights solid green.
- System reporting data to the monitoring portal.
- No alarms being reported.

Ensure that the system has the most up to date firmware.

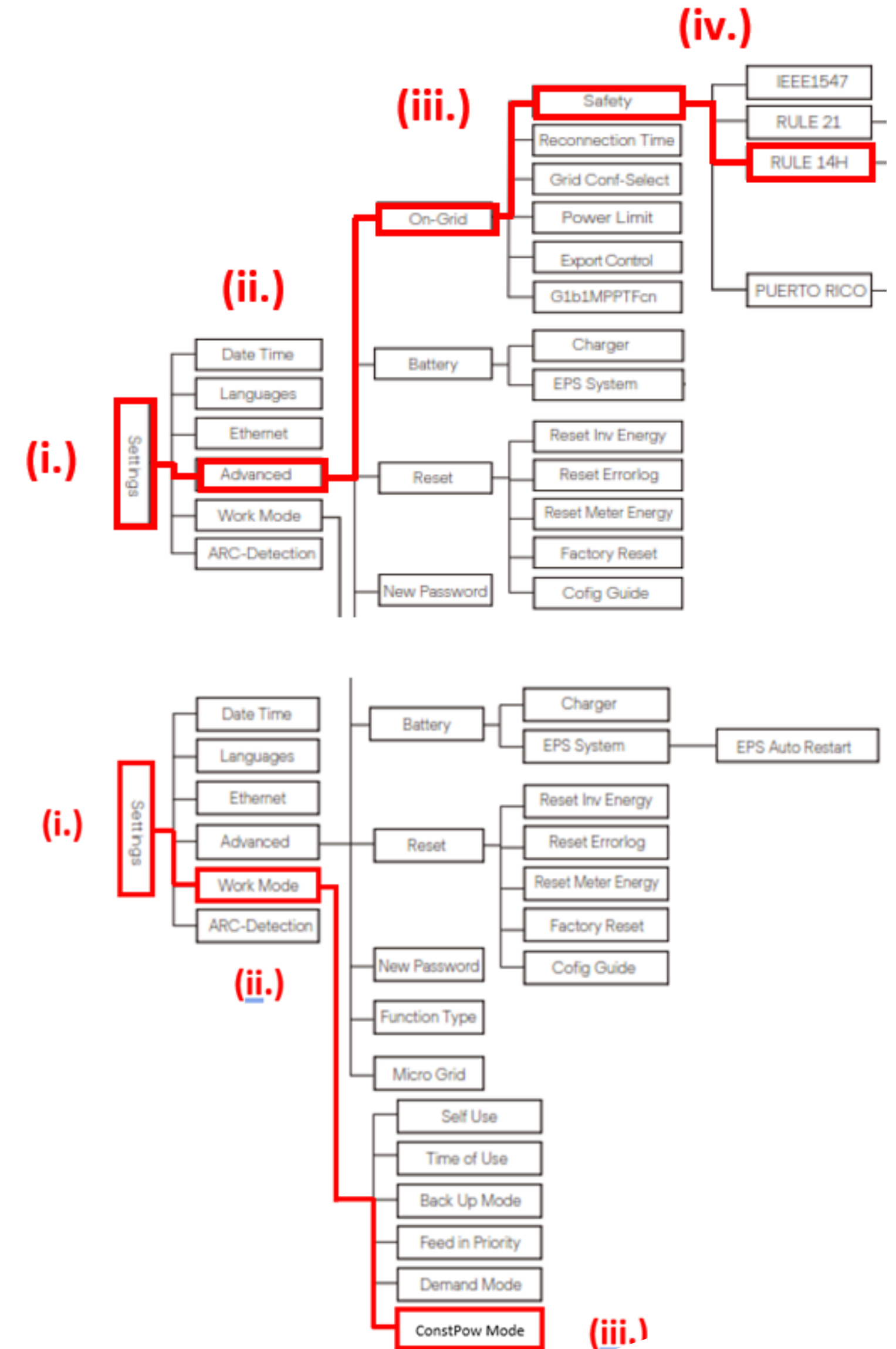
- Contact your installer or Q CELLS representative to confirm the firmware version.

SET THE GRID-SETTINGS

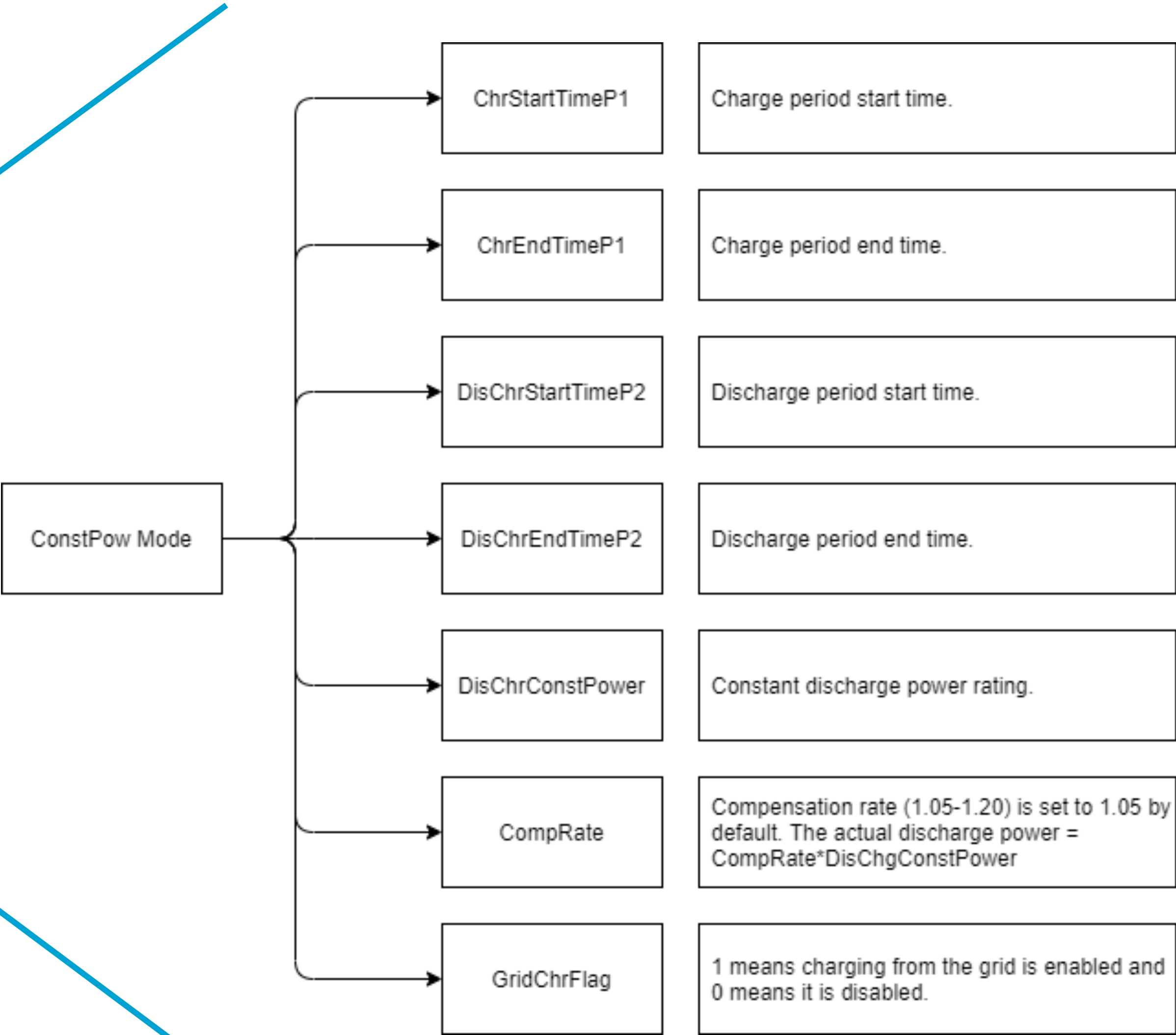
- The system can be configured for multiple grid requirements.
- Ensure the system is set to “RULE 14H”, which corresponds to the grid requirements in Hawaii and unlocks the new Work Mode.

SET THE WORK MODE

- The new Work Mode “ConstPow” must be selected.

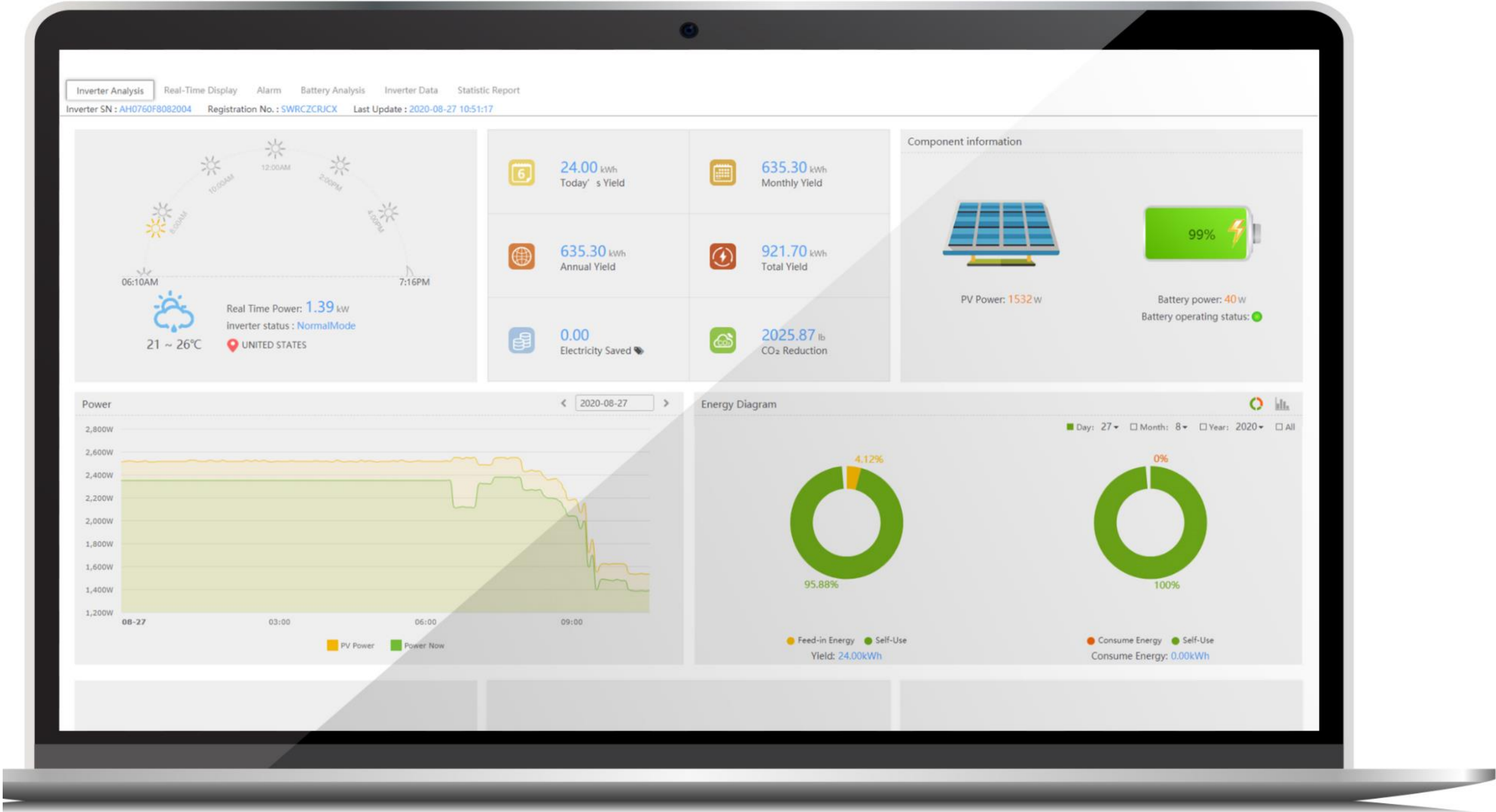


SET THE PARAMETERS



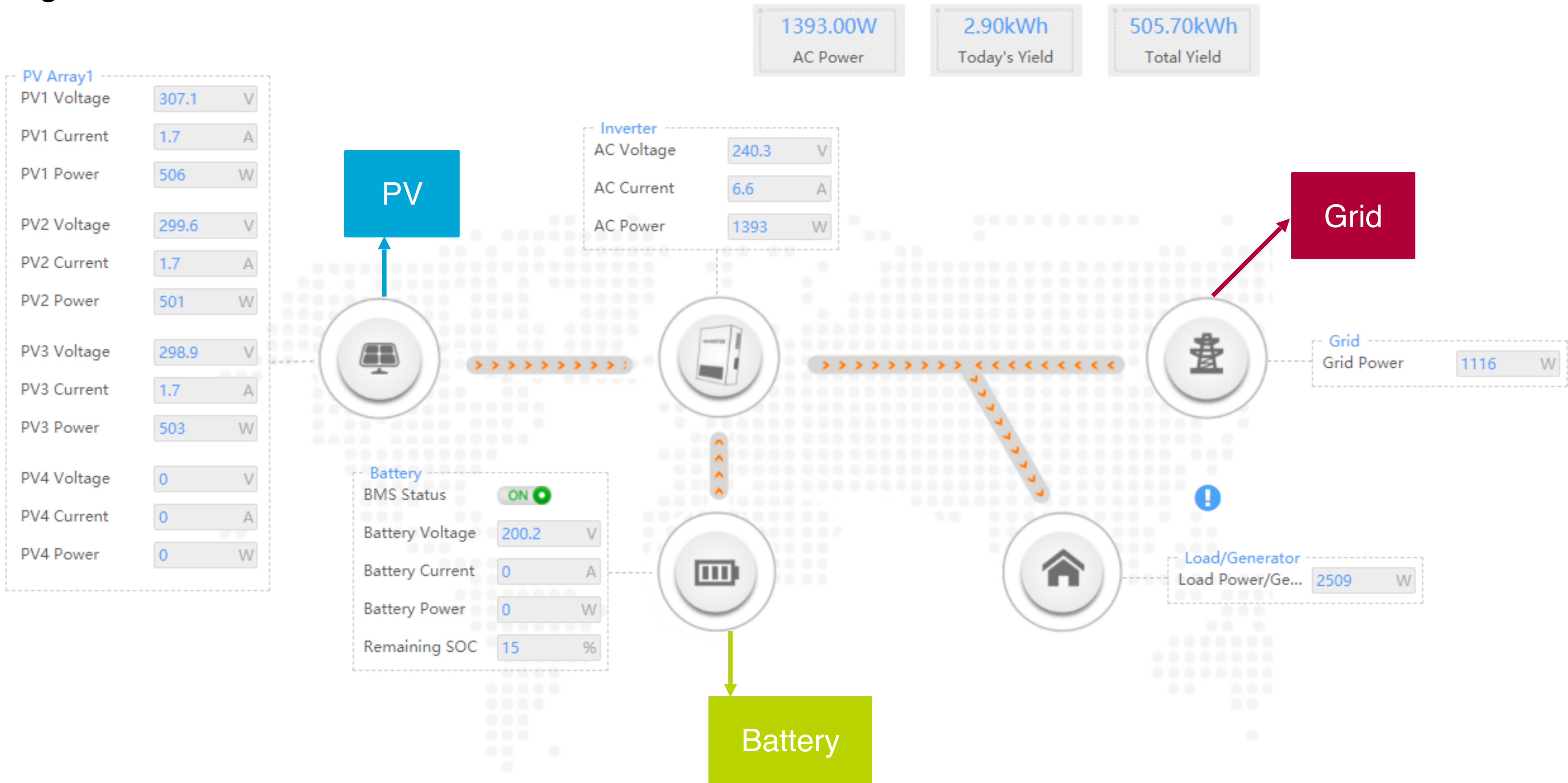
Q.HOME+ WEB PORTAL

Full System View

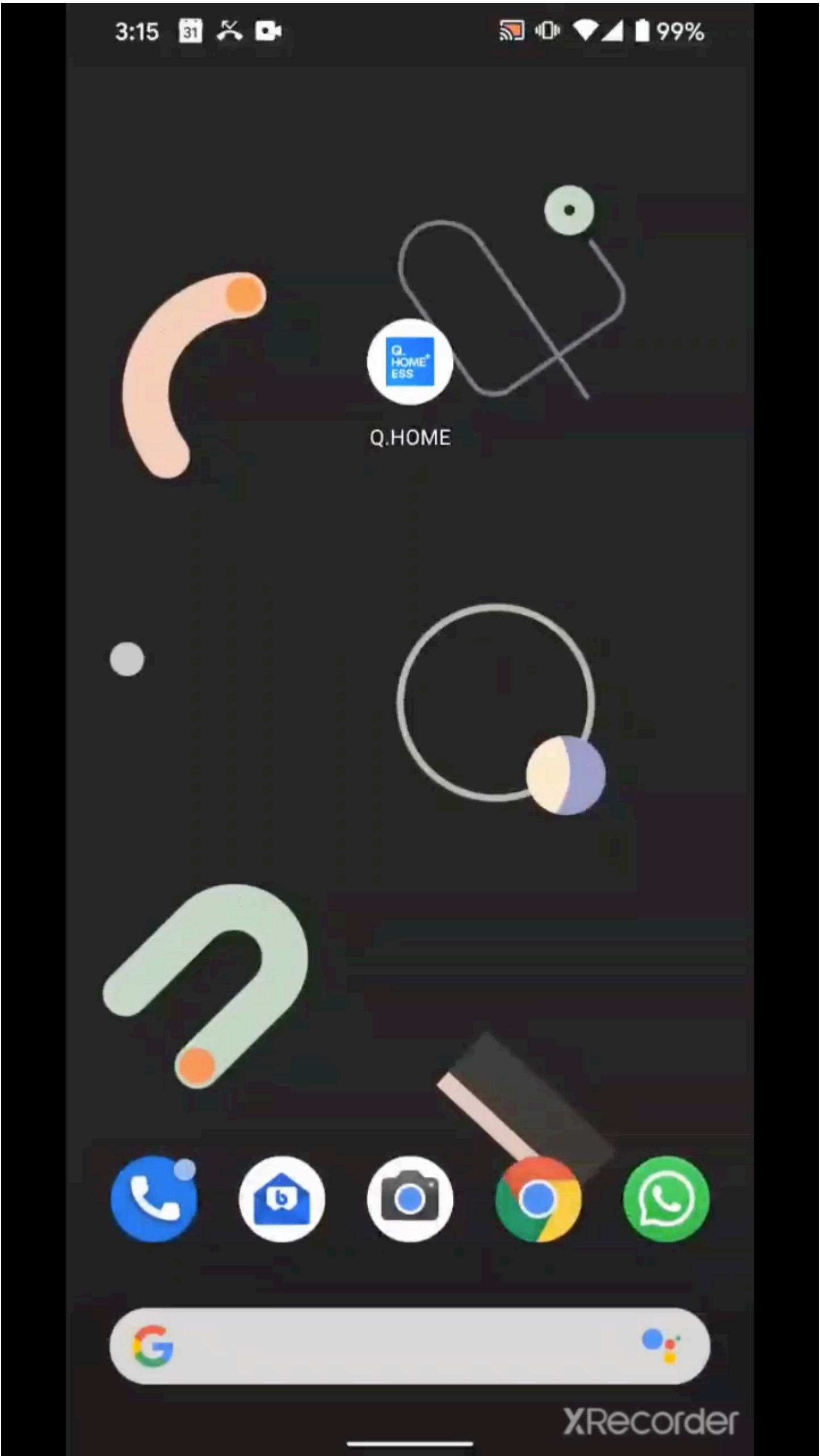


Q.HOME+ WEB PORTAL

Monitoring



Q.HOME+ MOBILE APP



- **Best Option**

- ✓ New installations
- ✓ Replacing an old inverter
- ✓ Less manufacturers

- **One Inverter**

- ✓ Less interconnections
- ✓ Less wiring, meters and CTs
- ✓ One monitoring APP
- ✓ Easier troubleshooting

- **Better Performance**

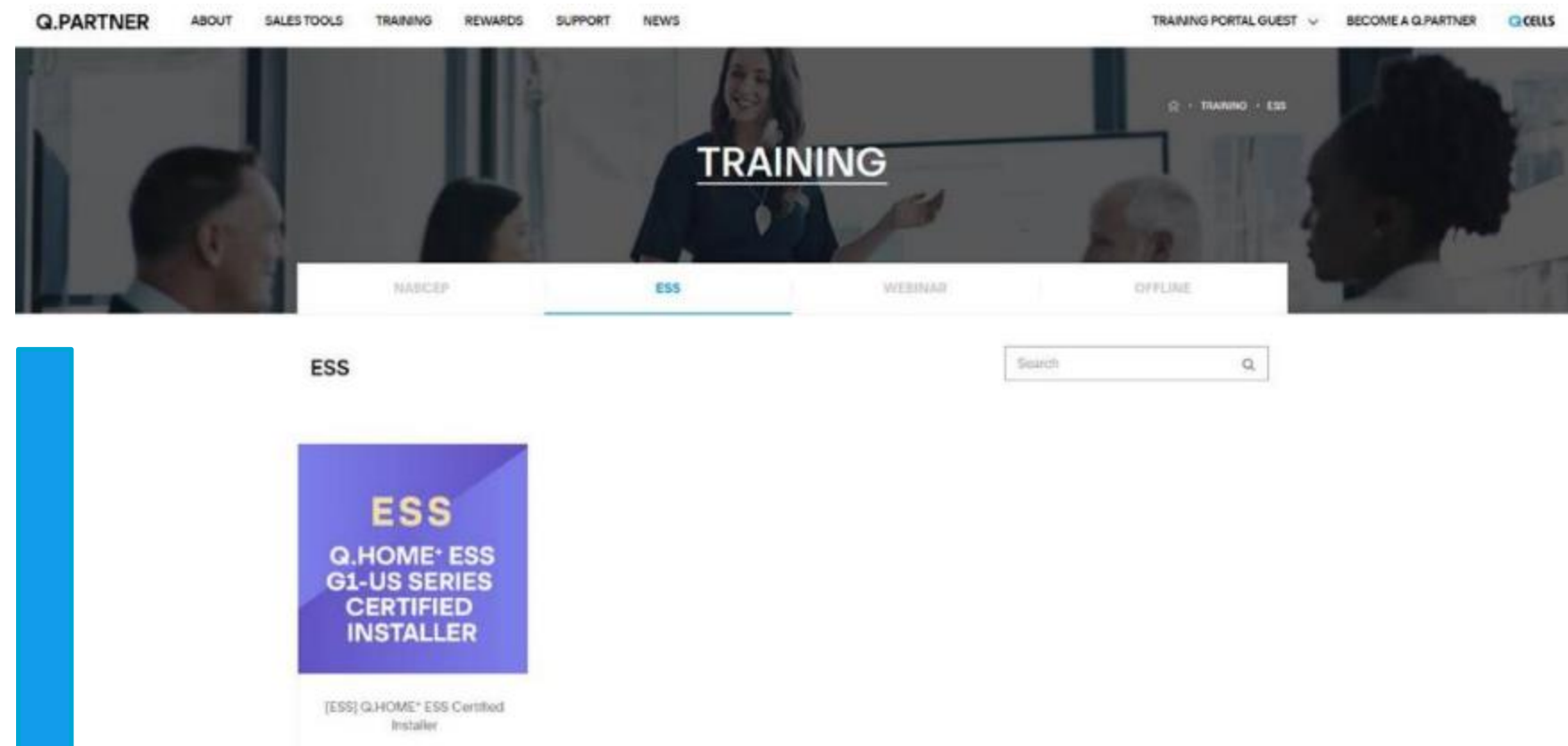
- ✓ DC-DC conversion. Higher efficiency = + KWh
- ✓ Example:
10kWh daily usage
Competitor AC Coupled = 8.87kWh
Q.HOME+ DC Coupled = 9.48kWh (+7%)
Over 220kWh per year

Q.CELLS Product Technology & Innovation LAB

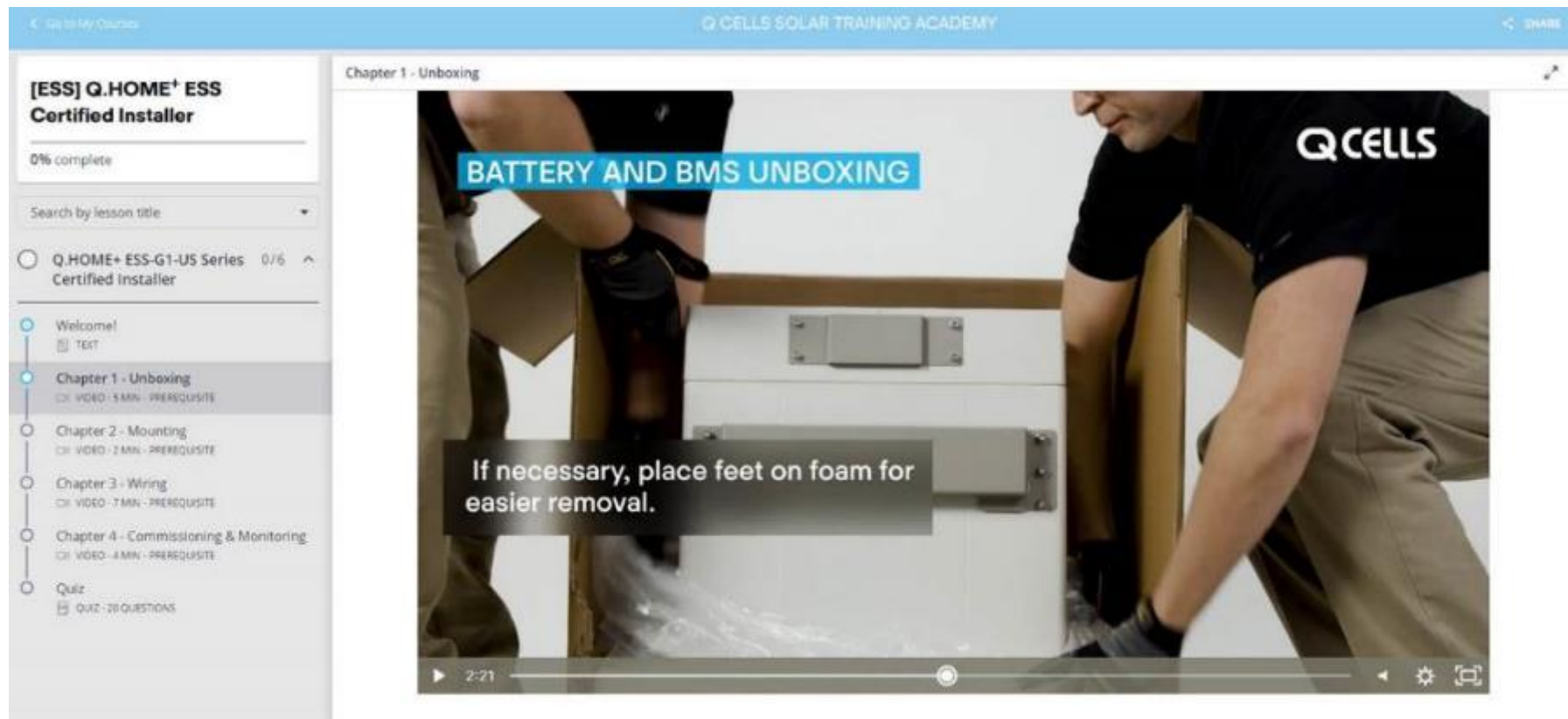


- ✓ Capacity / Performance, Round Trip Efficiency
- ✓ Grid Simulator – mimic different grid conditions
- ✓ PV module, RSD, Inverter, BOS compatibility
- ✓ Work Modes testing
- ✓ Virtual Product Show

1 Q.PARTNERS can access the training page



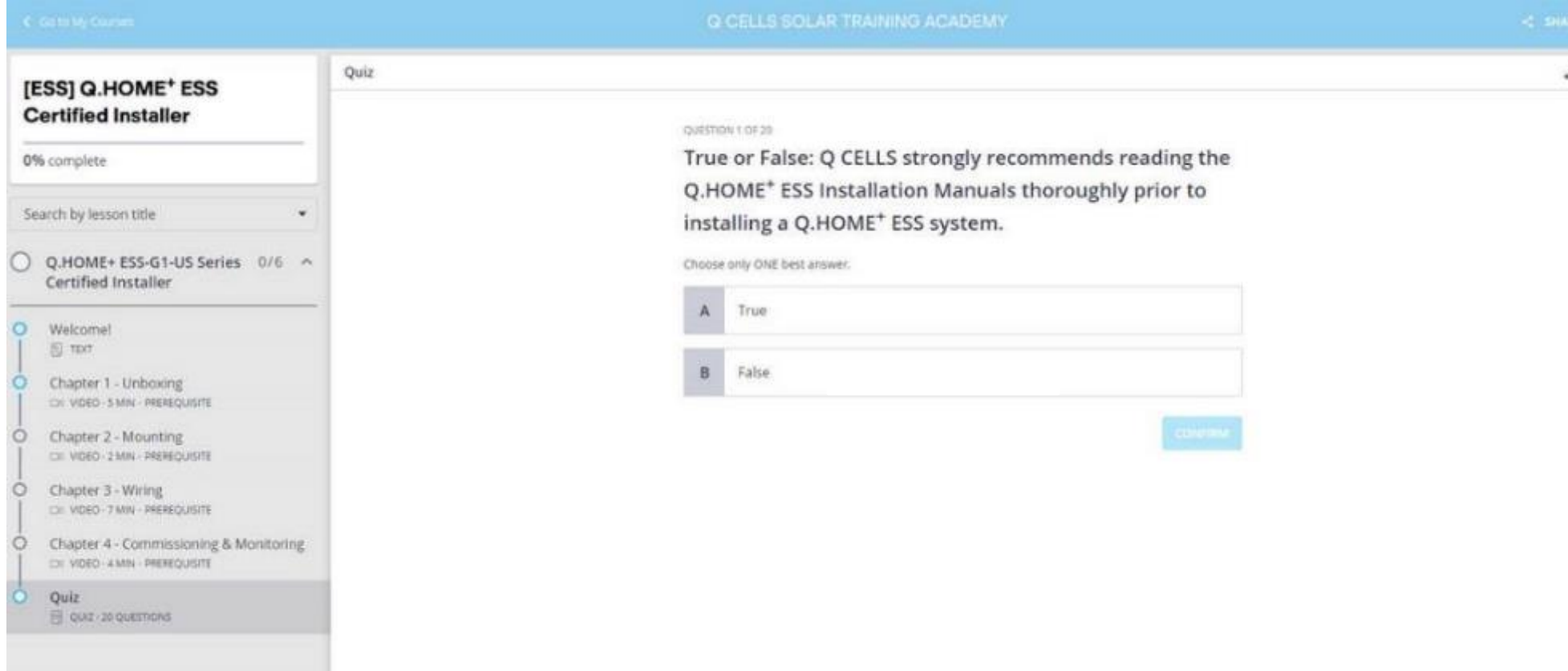
2 Complete training video content



4 Receive a certificate as a Q.HOME+ ESS Certified Installer



3 Take a quiz with a 100% passing grade



Q.HOME+ deployments

Lab Installation



Customer Installations



QUESTIONS?

THANK YOU!