

# 500kW / 1MWh 1MW / 2MWh Solution Presented By CNTE

FULL SCENARIO ESS SOLUTIONS PROVIDER

全场景储能方案提供商



福建时代星云科技有限公司

Contemporary Nebula Technology Energy Co., Ltd.

 时代星云

01

# CNTE Product RoadMap

Product Roadmap

# Energy Storage Product Roadmap



**STAR Q**  
50kW/109kWh  
306Ah cell 0.5P



**STAR Q-PLUS**  
125kW/250kWh  
125kW/257kWh  
306/314Ah cell 0.5P



**STAR H**  
100kW/232kWh  
115kW/232kWh  
280Ah cell 0.5P



**STAR H-PLUS**  
125kW/254kWh  
125kW/261kWh  
306/314Ah cell 0.5P



**STAR H-MAX**  
110kW/440kWh  
220kW/440kWh  
530Ah cell 0.25/0.5P



**STAR X**  
PCS-Battery Integrated  
1.0MW/2.1MWh~2.8MW/5.6MWh  
530Ah cell 0.5P



**ENER X**  
5,644MWh  
530Ah cell 0.5P



**STAR T**  
1.9MWh-3.79MWh/4.07MWh  
285Ah cell 1P/306Ah cell 0.5P

**C&I(<5MWh)**



**Utility(>5MWh)**



**Solis Inverter**



**Yunt PCS Module**



**Terapower PCS Module**



**Delta 5.5MVA SKID**  
Switchgear+MV Transformer  
+2\*PCS 2782kW



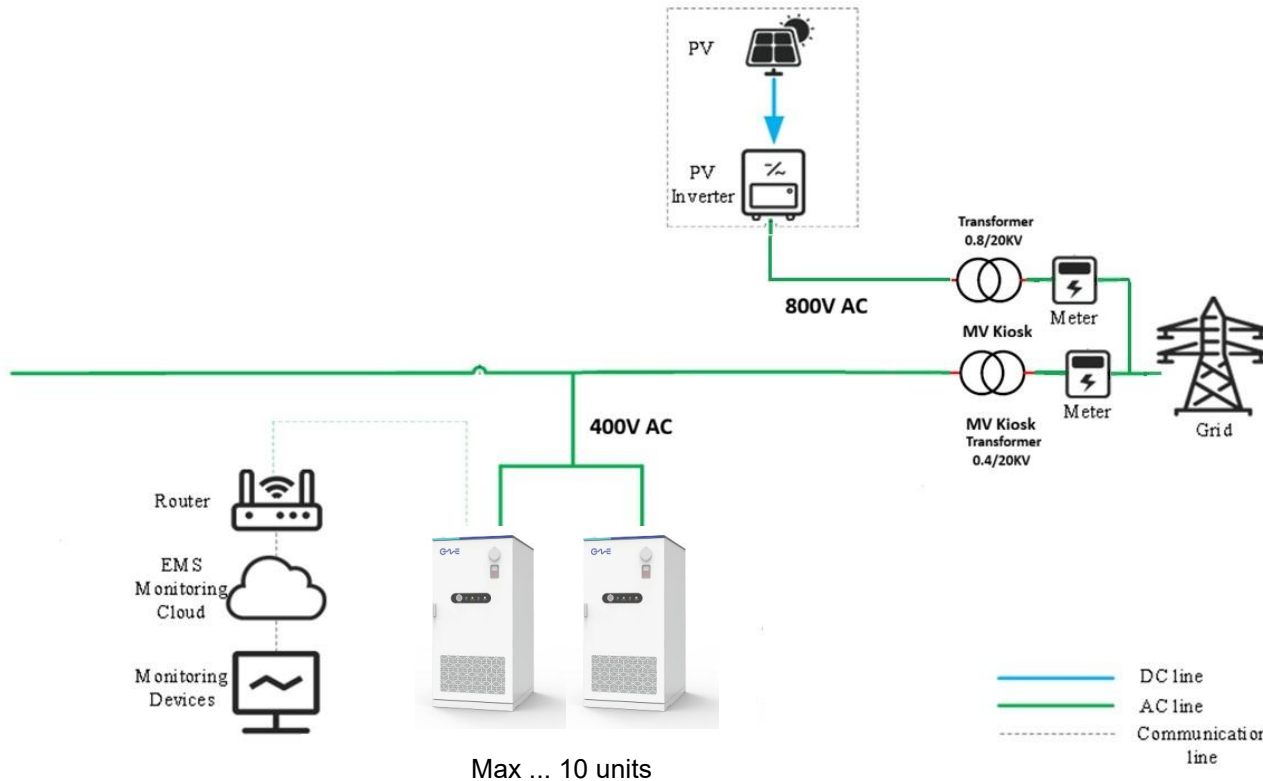
**Delta 7.1MVA SKID**  
Switchgear+MV Transformer  
+2\*PCS 3556kW

02

# PV System Topologies

BESS for PV Farm

# PV System Topologies 01



## Technical Key Points:

- 400Vac Connection for BESS
- After the metre
- MV Coupling with PV Inverter
- PV Inverter Output at 800Vac

## CNTE's Product for this Topologies:



### STAR H-PLUS

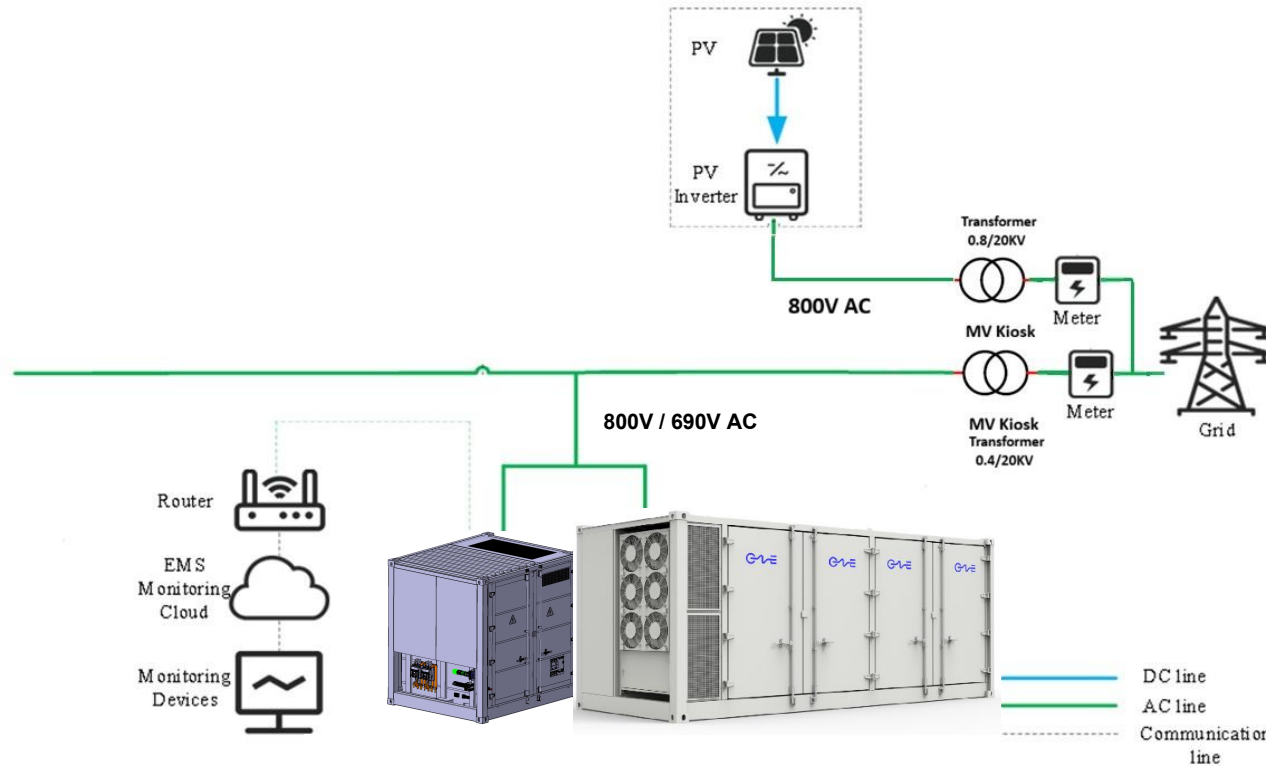
125kW/254kWh  
125kW/261kWh  
306/314Ah cell 0.5P  
Max Parallel: 10units



### STAR H-MAX

110kW/440kWh  
220kW/440kWh  
530Ah cell 0.25/0.5P  
Max Parallel: 10units

# PV System Topologies 01 CNTE Solution

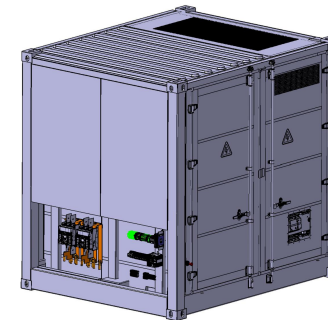


03

## Technical Key Points:

- 690Vac or 800Vac Connection for BESS
- After the metre
- MV Coupling with PV Inverter
- PV Inverter Output at 800Vac

## CNTE's Product for this Topologies:



800V AC

### 2MWh 10R Container

1MW/2.1MWh  
530Ah cell 0.5P  
800V All in One System



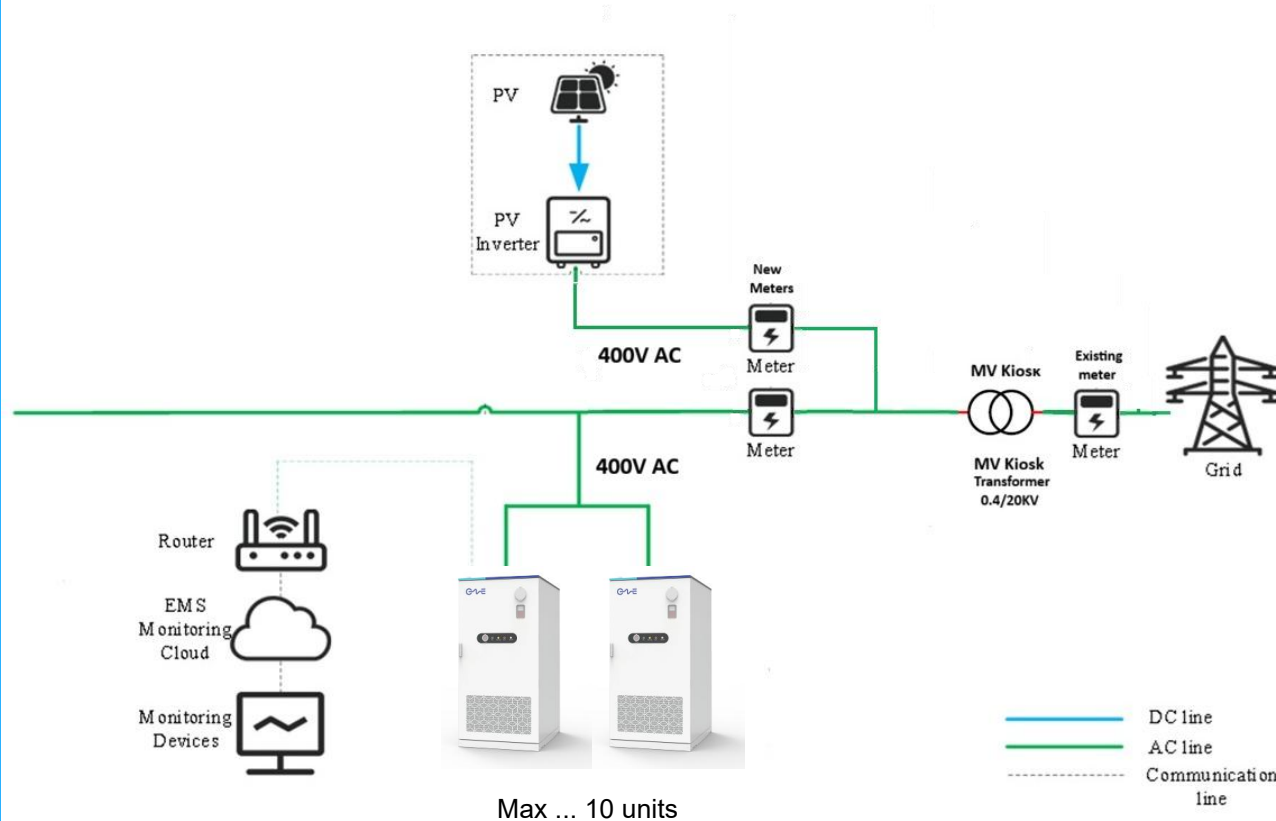
690V AC

### Star-X

2.8MW/5.6MWh (scalable capacity)  
530Ah cell 0.5P  
690Vac All in One System

# PV System Topologies 02

Retrofitting 400V Battery to existing PV with 400V Inverters



03

## Technical Key Points:

- 400Vac Connection for BESS
- After the metre
- Direct Coupling with PV Inverter
- PV Inverter Output at 400Vac

## CNTE's Product for this Topologies:



### STAR H-PLUS

125kW/254kWh  
 125kW/261kWh  
 306/314Ah cell 0.5P  
 Max Parallel: 10units

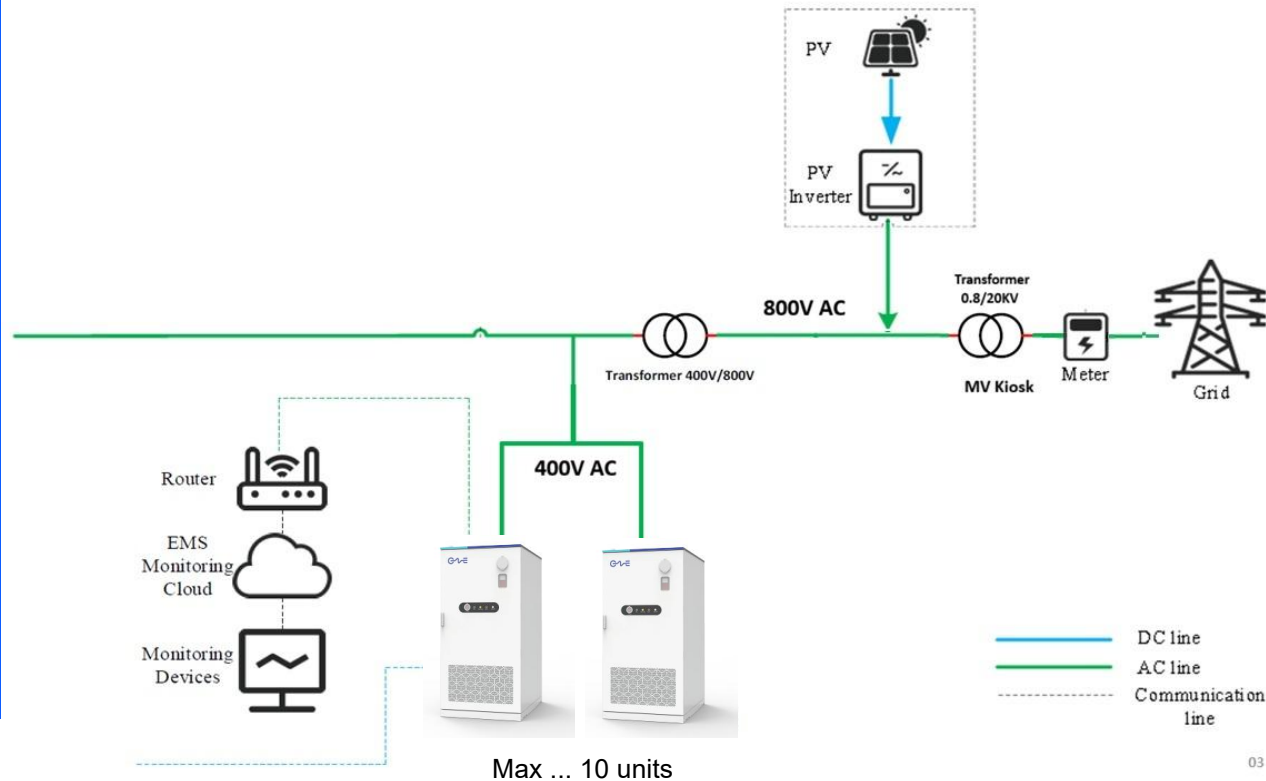


### STAR H-MAX

110kW/440kWh  
 220kW/440kWh  
 530Ah cell 0.25/0.5P  
 Max Parallel: 10units

# PV System Topologies 03

Retrofitting 400V Battery that can charge from the Grid (118) to existing PV with 800V Inverters



## Technical Key Points:

- 400V AC Connection for BESS
- After the metre
- LV Coupling with PV Inverter & Transformer
- PV Inverter Output at 800Vac

## CNTE's Product for this Topologies:



### STAR H-PLUS

125kW/254kWh  
125kW/261kWh  
306/314Ah cell 0.5P  
Max Parallel: 10units

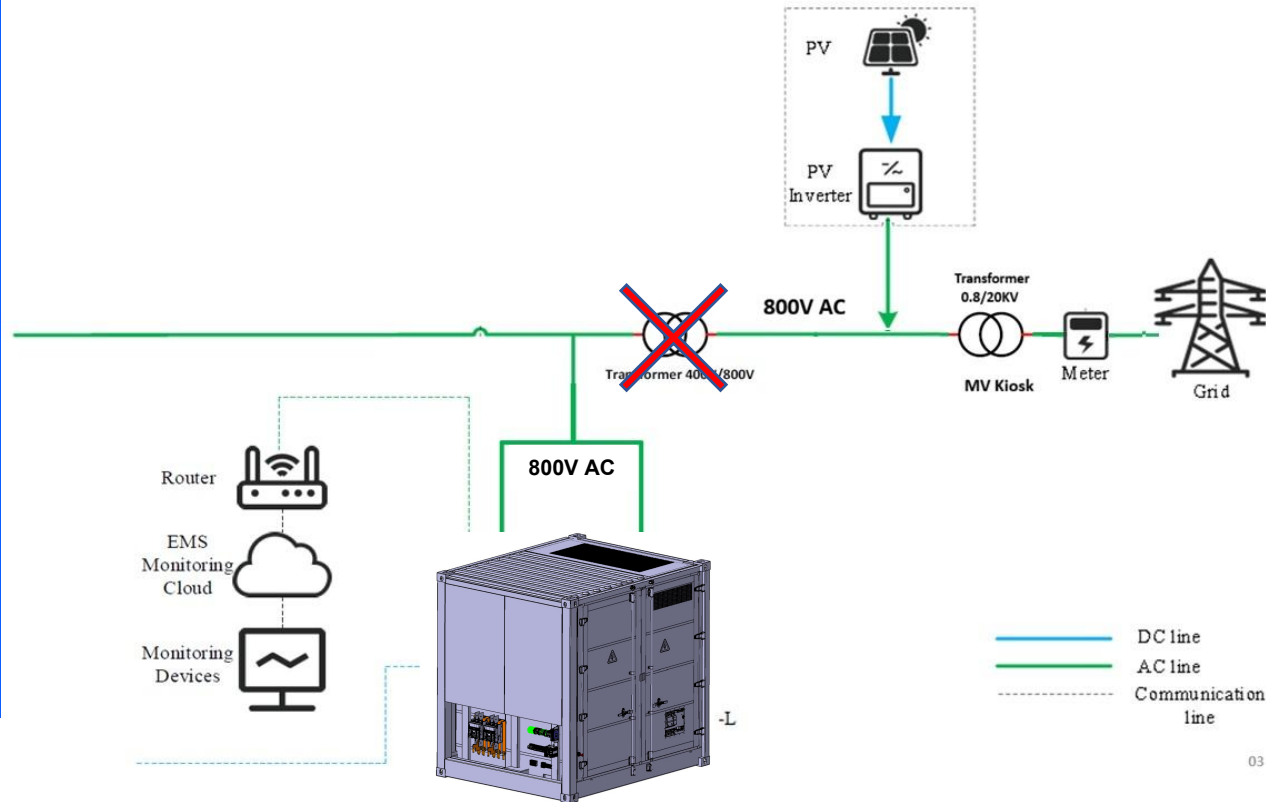


### STAR H-MAX

110kW/440kWh  
220kW/440kWh  
530Ah cell 0.25/0.5P  
Max Parallel: 10units

# PV System Topologies 03 CNTE Solution

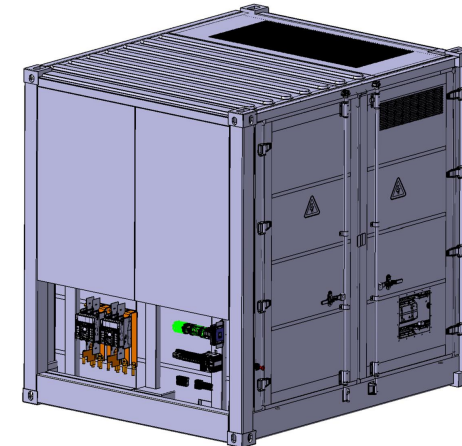
Retrofitting 400V Battery that can charge from the Grid (118) to existing PV with 800V Inverters



## Technical Key Points:

- 800V AC Connection for BESS
- After the metre
- **Direct Coupling without Transformer**
- PV Inverter Output at 800Vac

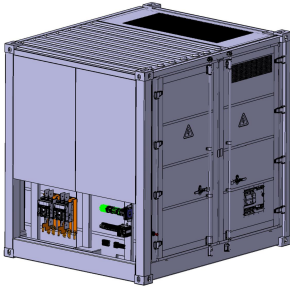
## CNTE's Proposed New Topologies:



### 2MWh 10R Container

1MW/2.1MWh  
530Ah cell 0.5P

# CNTE Solution Summary

| Nominal Power / Nominal Energy | 500kW / 1MWh                                                                       |         | 1MW / 2MWh                                                                          |
|--------------------------------|------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------|
| PV Voltage                     | 400V                                                                               | 800V    | 800V                                                                                |
| CNTE Proposed Configurations   | StarH-MAX * 2 (220kW / 440kWh)<br>+<br>StarH-Plus * 1 (125kW / 254kWh)             | Pending | 2MWh 10R Container                                                                  |
| Product Picture                |  | Pending |  |
| Total Footprint                | ~ 5.51m²                                                                           | Pending | ~ 7.3m²                                                                             |

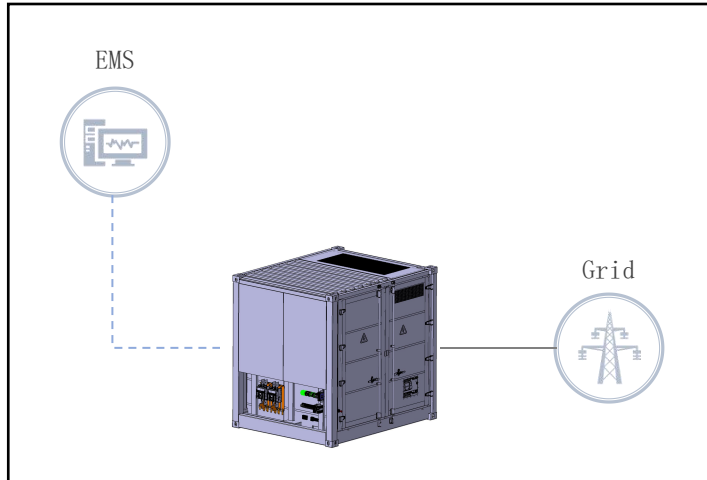
03

# Proposed Container System

1MW-2MWh All in One Container System

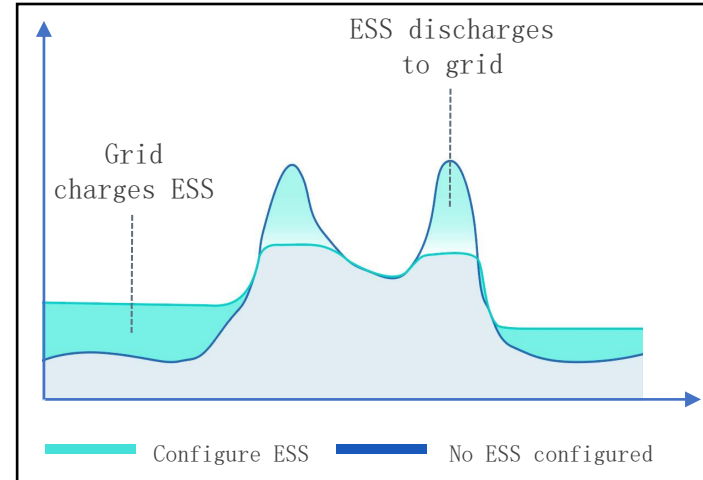
# Application scenarios

## ◆ Freq & volt regulation



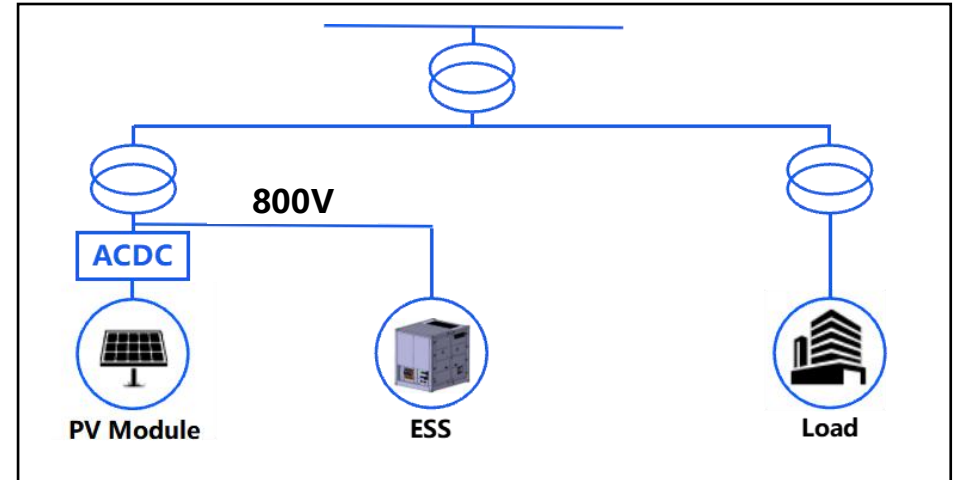
Container enables fast response to grid dispatch, ensuring power quality and stability.

## ◆ Peak shaving & valley filling



Charge/discharge schedule and power can be set via EMS.

## ◆ Solar-Storage



The BESS enables to provide a 400V or 800V AC output, connecting directly to the PV inverter without an external transformer.

## 2MWh 10R Container

### Battery Parameters

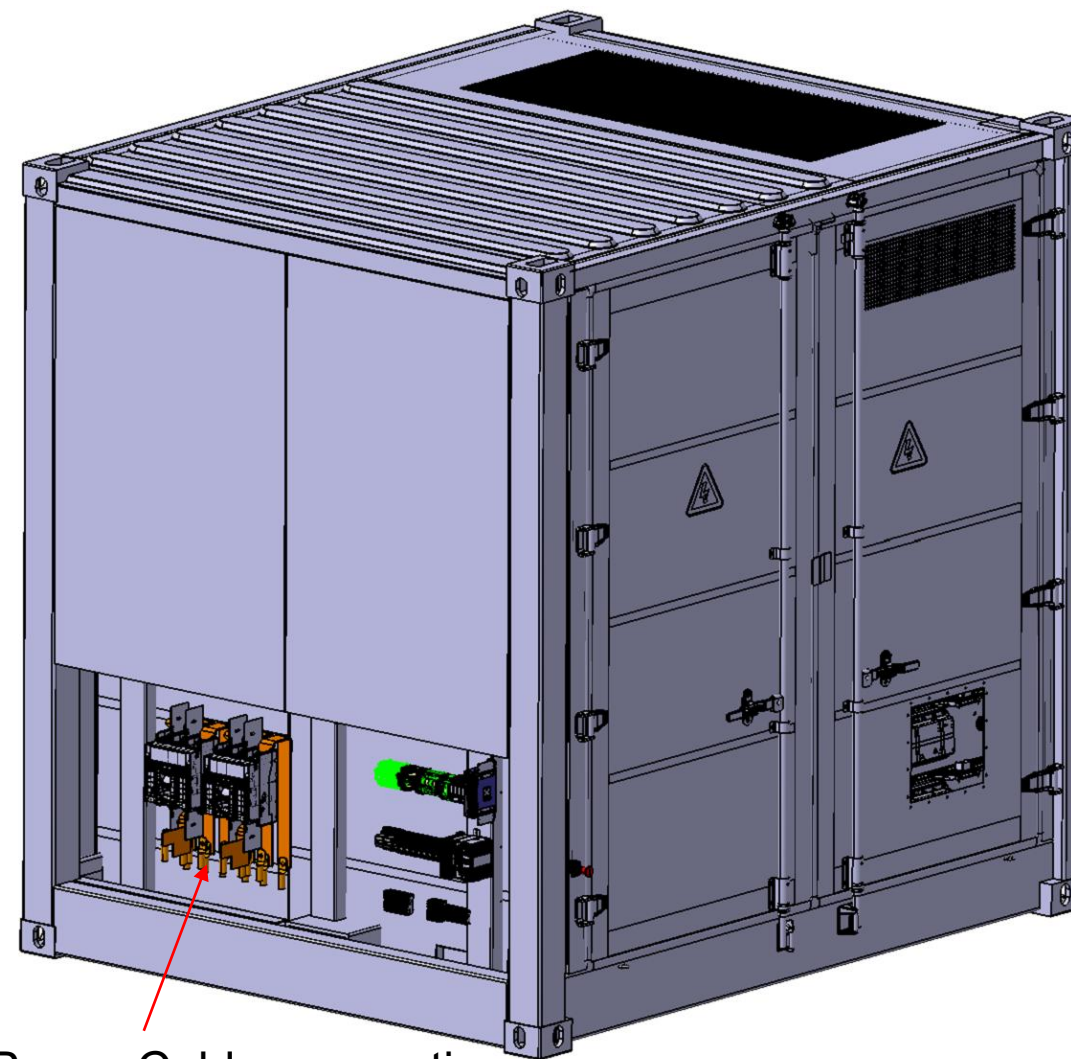
|                |                |
|----------------|----------------|
| Cell Type      | LFP            |
| Cell Capacity  | 530Ah          |
| Nominal Energy | 2116KWh        |
| Cooling Method | Liquid Cooling |
| Max P-Rate     | 0.5P           |

### AC Parameters

|               |        |
|---------------|--------|
| Rated Power   | 1000KW |
| Rated Voltage | 800Vac |

### System

|                   |                           |
|-------------------|---------------------------|
| Temperature       | -25~55°C(> 45°C derating) |
| IP Level          | IP55                      |
| Dimensions(W*D*H) | 2991mm*2438mm*2896mm      |
| Weight            | ~25000Kg                  |



DC Power Cable connection

## 2MWh 20R Container

### Battery Parameters

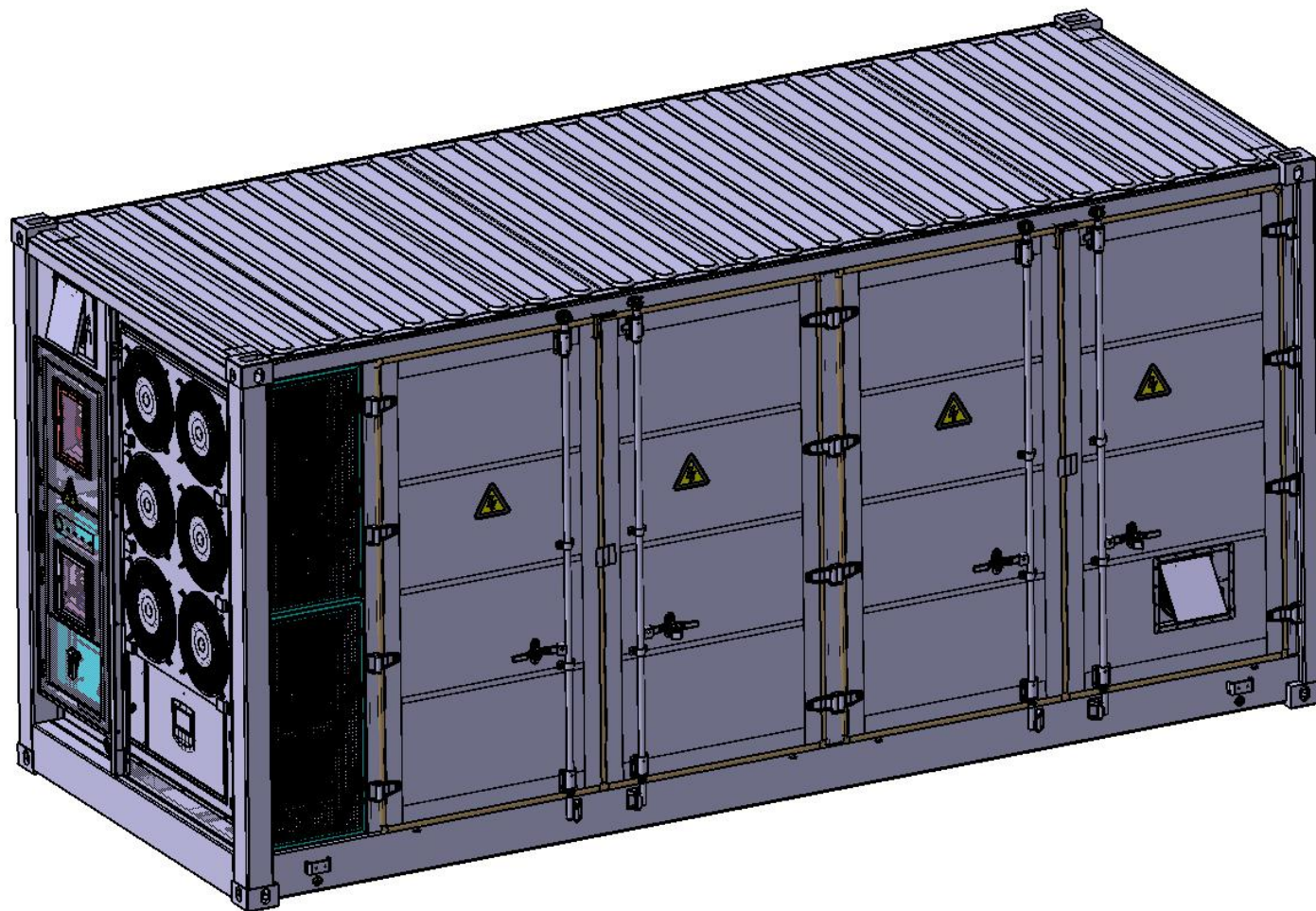
|                |                |
|----------------|----------------|
| Cell Type      | LFP            |
| Cell Capacity  | 530Ah          |
| Nominal Energy | 2116KWh        |
| Cooling Method | Liquid Cooling |
| Max P-Rate     | 0.5P           |

### AC Parameters

|               |        |
|---------------|--------|
| Rated Power   | 1000KW |
| Rated Voltage | 800Vac |

### System

|                   |                           |
|-------------------|---------------------------|
| Temperature       | -25~55°C(> 45°C derating) |
| IP Level          | IP55                      |
| Dimensions(W*D*H) | 6058mm*2438mm*2896mm      |
| Weight            | ~28000Kg                  |



# Thanks!

FULL SCENARIO ESS SOLUTIONS PROVIDER  
全场景储能方案提供商



福建时代星云科技有限公司

Contemporary Nebula Technology Energy Co., Ltd.

 时代星云