SG3125HV-30 Product Solution

Lecturer: Sungrow Date: 2020/07

SUNGROW

Contents

Applications

Utility Plant

Floating

Lower LCOE

- High DC/AC Ratio, Large Capacity
- High Efficiency，High yielding
- All-in-one，Low O&M Cost

Strong Grid Support

- Larger inverter capacity，Less equipment quantity
- Centralized layout, faster schedule
- PV & ESS，Support Grid

New Upgrade ,for Lower LCOE and Stronger Grid Support

Outdoor

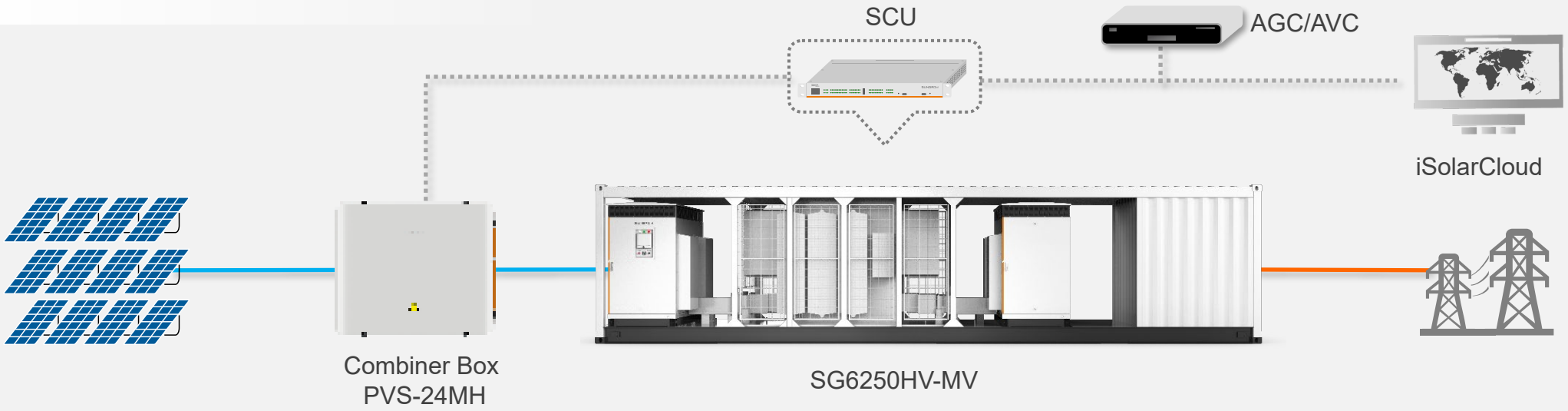
SG3125HV-30

SG6250HV-MV

- Max. Efficiency **99%,** Euro. efficiency 98.7%
- DC/AC ratio up to **1.8**
- **24h online** AC insulation monitoring
- Reactive power response time **<30ms**
- **SCR≥1.2** stable operation in extremely weak grid
- Built-in ESS interface， support **PCS operating mode**
- **Remote upgrade , digital management,** easy O&M

SG3125HV-30 System Solution

6.25MW/12.5MW Block



- 15A/string，compatible with bifacial panel
- 24 inputs，positive & negative fuse
- SMC enclosure，C5 & IP67 protection

- All-in-one , highly integrated design
- Max. 48 inputs，DC/AC ratio up to 1.8
- 4 MPPT, independent operation

- Device level management, active O&M
- Unified communication interface, easy O&M
- remote monitoring-iSolarCloud,

Highly Integrated Design

1 High Yield

- Advanced three-level technology, max. efficiency 99 %
- Built-in PID solution, 100% repair degradation PV module

Module

2 Low Cost

- Integrated Aux. Power, supply for tracker system
- DC ESS interface, support reverse charging at half nominal power

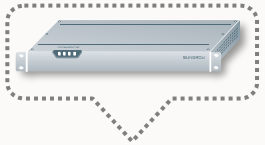
Battery

DC/DC

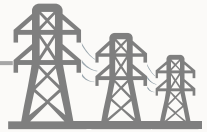
Tracker

3 Safe & Efficient

- Integrated SCU, unified interface, easy O&M
- 24h AC insulation monitoring



SCU



4 Grid Support

- Fast power dispatch, Q response time < 30ms
- Stable operation in SCR≥1.2 weak grid

Save 2 million $/100MW, Yield Increase 1%

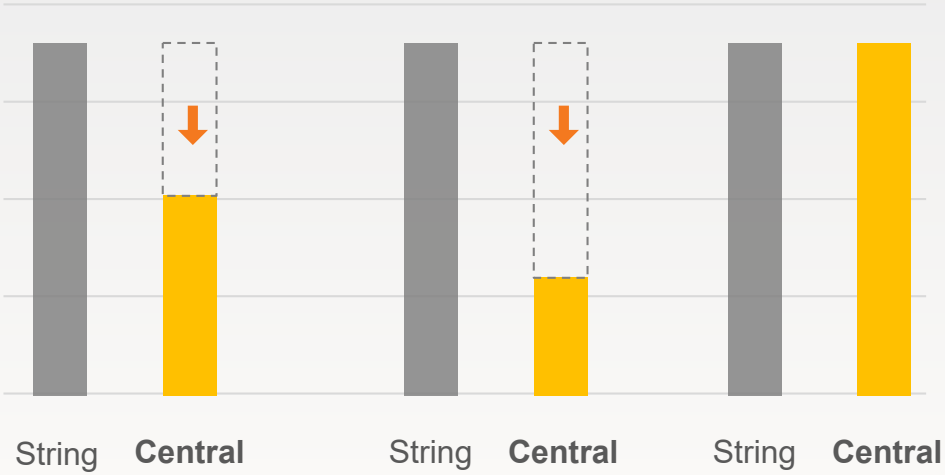
Save **2 million $/100MW**

Except for inverter, the rest costs are basically the same

Save 0.7 ¢ /Wp
Inverter cost

Save 1.4 ¢ /Wp
Q device cost

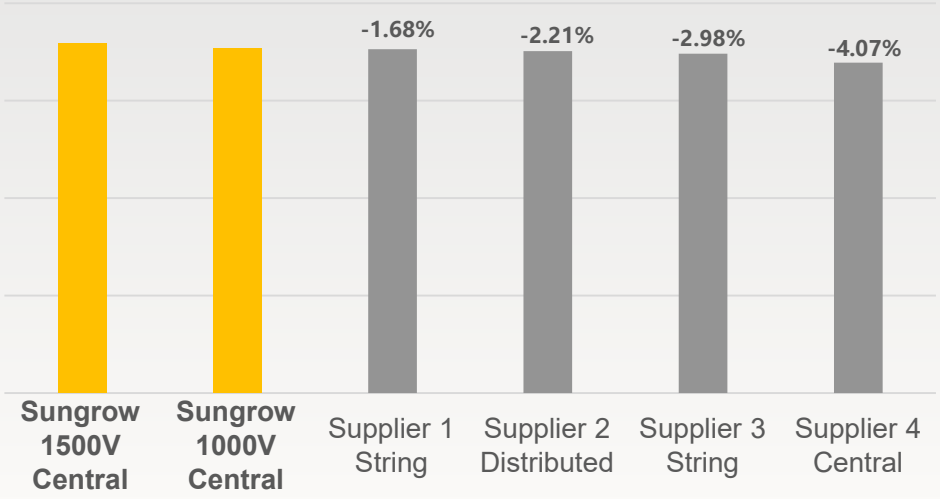
Basically same
Other costs



Yield increase **1%**

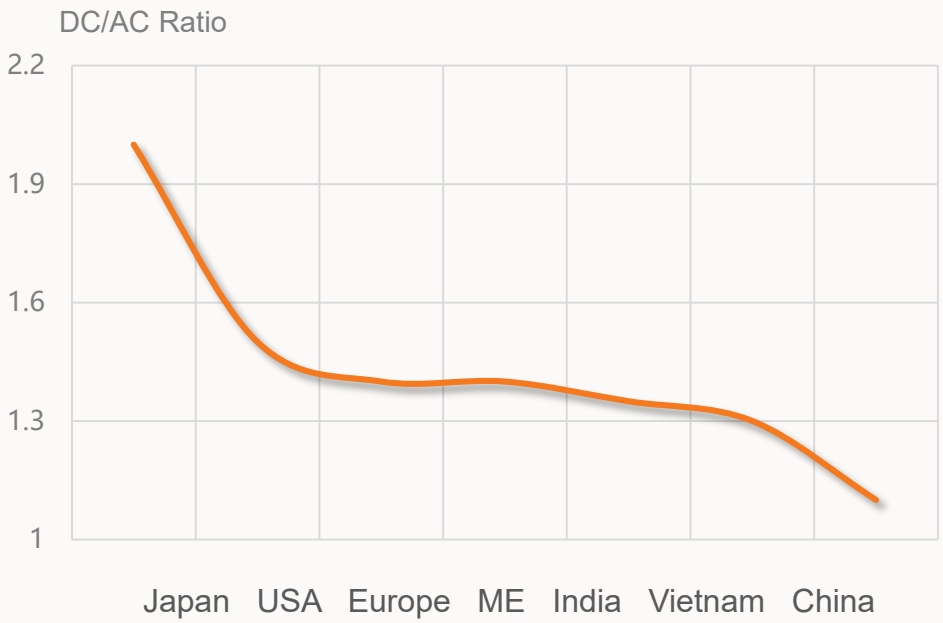
High DC/AC ratio on flat terrain PV plant

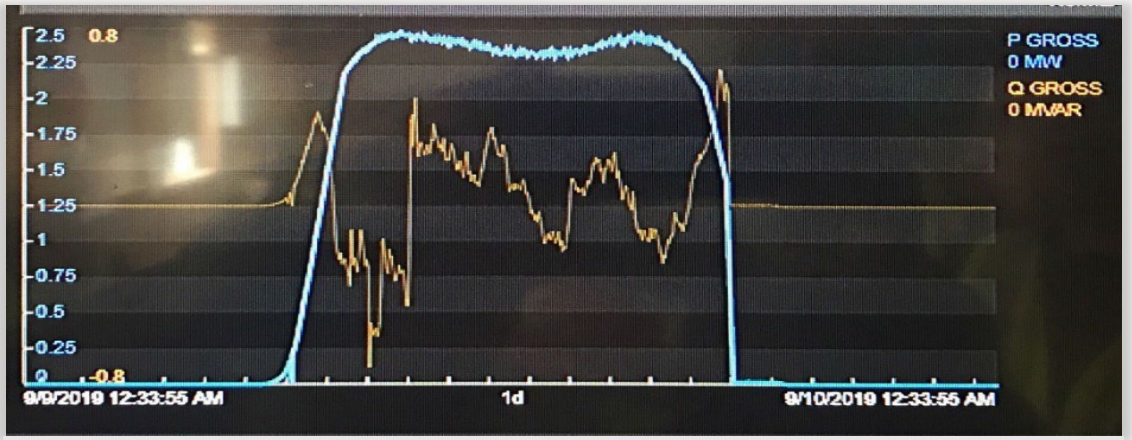
"100MW PV Plant Demonste Base" in Qinghai,China
Sungrow inverter has the highest power generation.



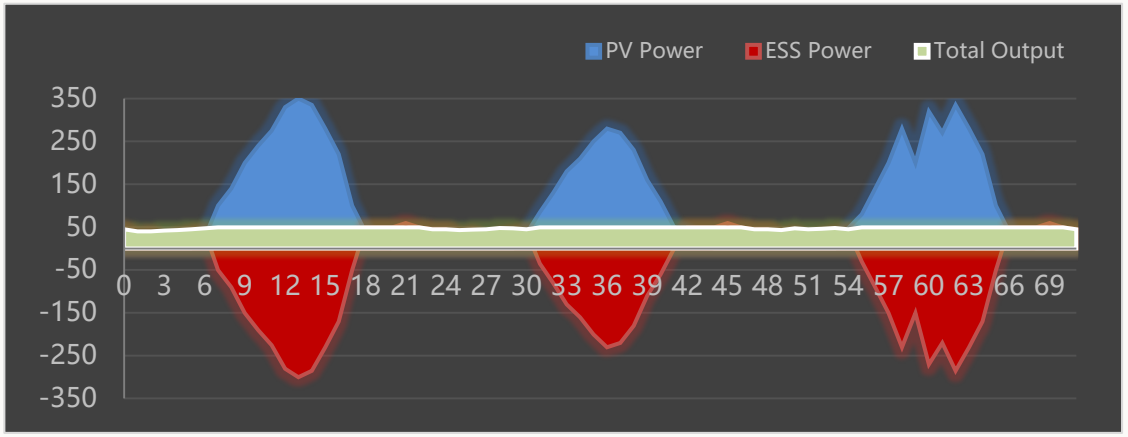
Support 1.8 DC/AC Ratio， AC Output More Smooth, Easy for Integrating ESS Interface

"High DC/AC Ratio + Flat Single Axis Tracking" already has been popular overseas



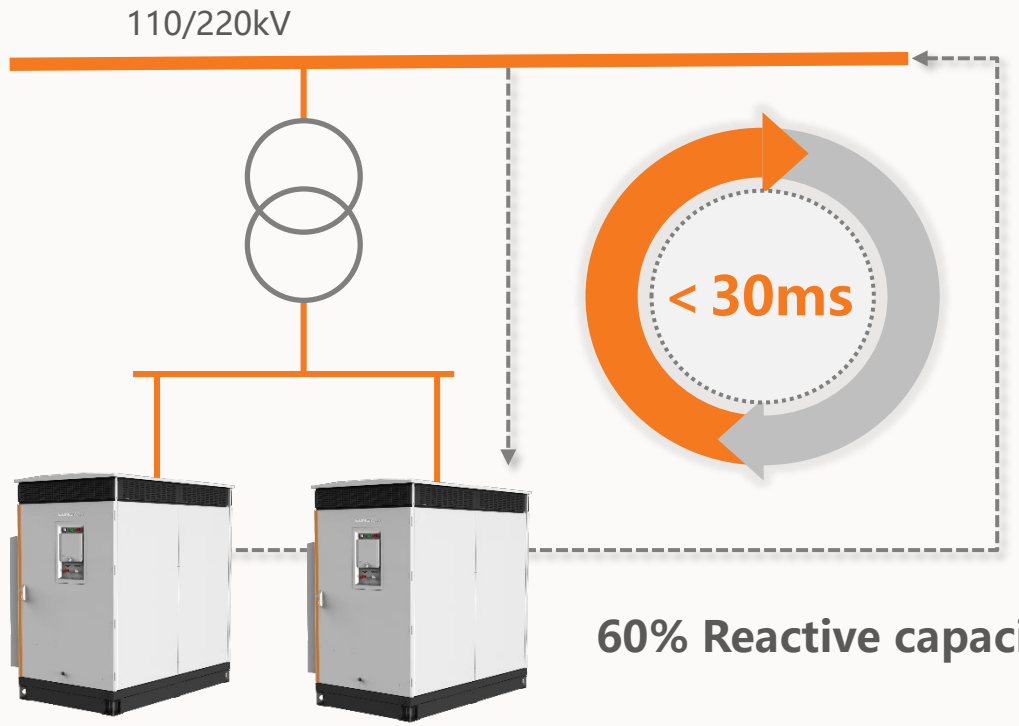


California 205MW PV plant， DC/AC Ratio 1.42, AC output more smooth



Japan 1.1MWh Battery+350kWp Module+50kW Inverter， 24h continuous generate power

Q at night Function & Fast Power Response, Grid Support



Inverter integrated with fast power control module

Unique, Verified by Third-part

- Reactive power response time **<30ms**
- Active power response time **<140ms**

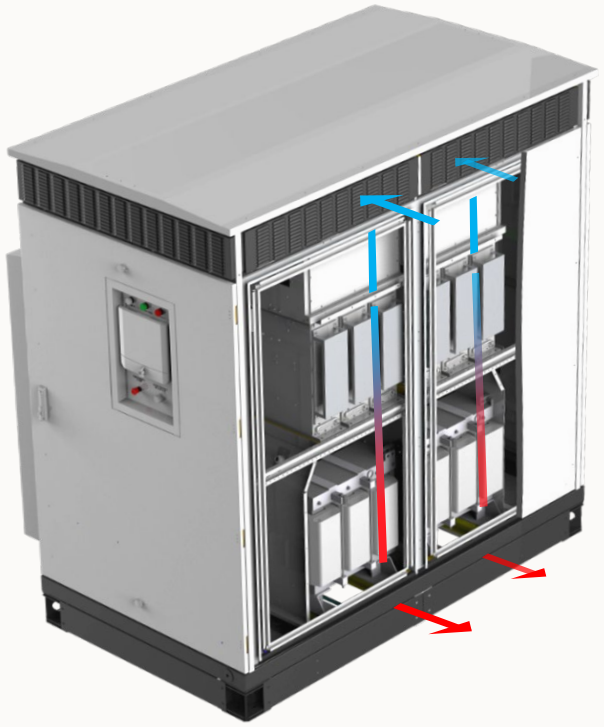
SCR≥1.2 stable operation

- Precise control algorithm and advanced technology
- Stable operation in extremely weak grid

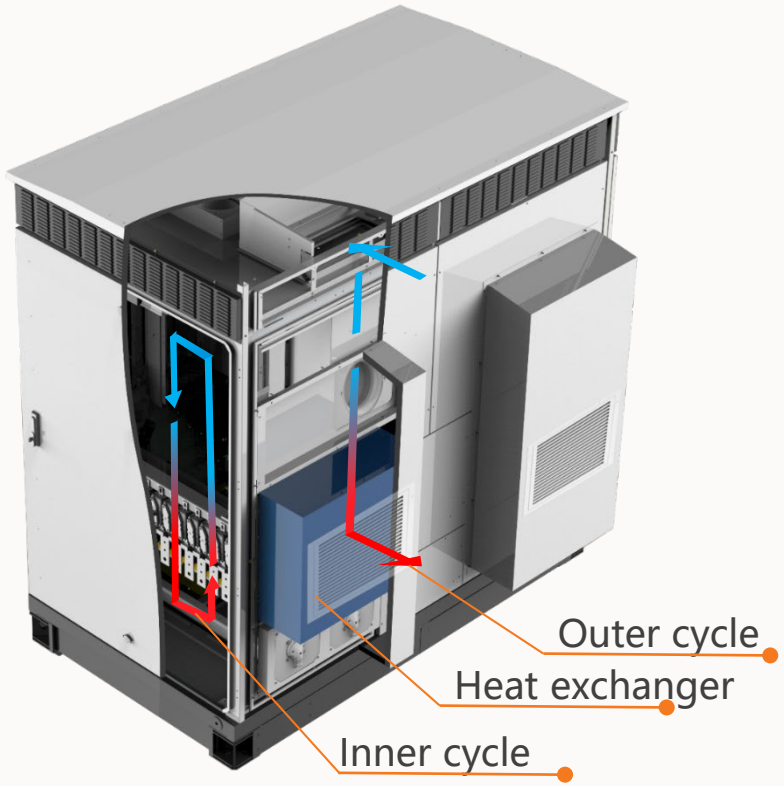
Q at night function

- Integrated Q at night function
- Save Q compensation device cost

C5 & IP65 Protection, Independent Cabinet for Heat Dissipation



Speed controlled fans for power module cooling



Heat exchanger for electronic components cooling

Device work in cold area

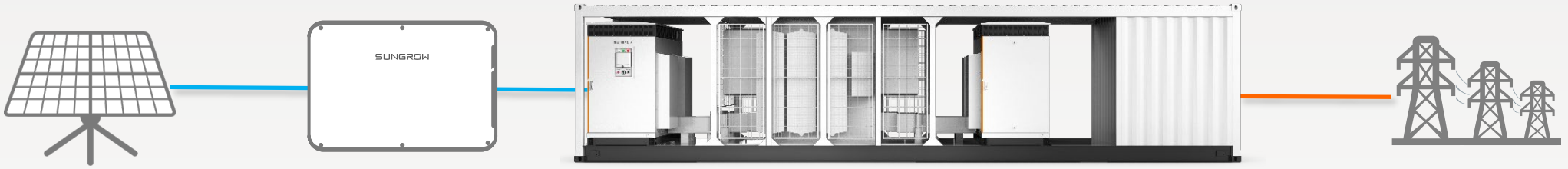
The max. Temp. rise of IGBT and other core components is 45 ℃,low temp extend component life .

IP65 & C5

Case: hot galvanized steel , painting thickness> 120um

Fastener: Q235 carbon steel surface passivation & galvanizing

Digital Management, Active O&M , High Efficiency



1

High precision detection
For string and component

- **0.5%** Sensor accuracy
- **200+** Sensor layout

2

Component level management
Fault pre-alarm、fast location

IGBT	Fuse
DC Capacitor	Circuit Breaker
Fan	Load Switch
Reactor	Filter Capacitor

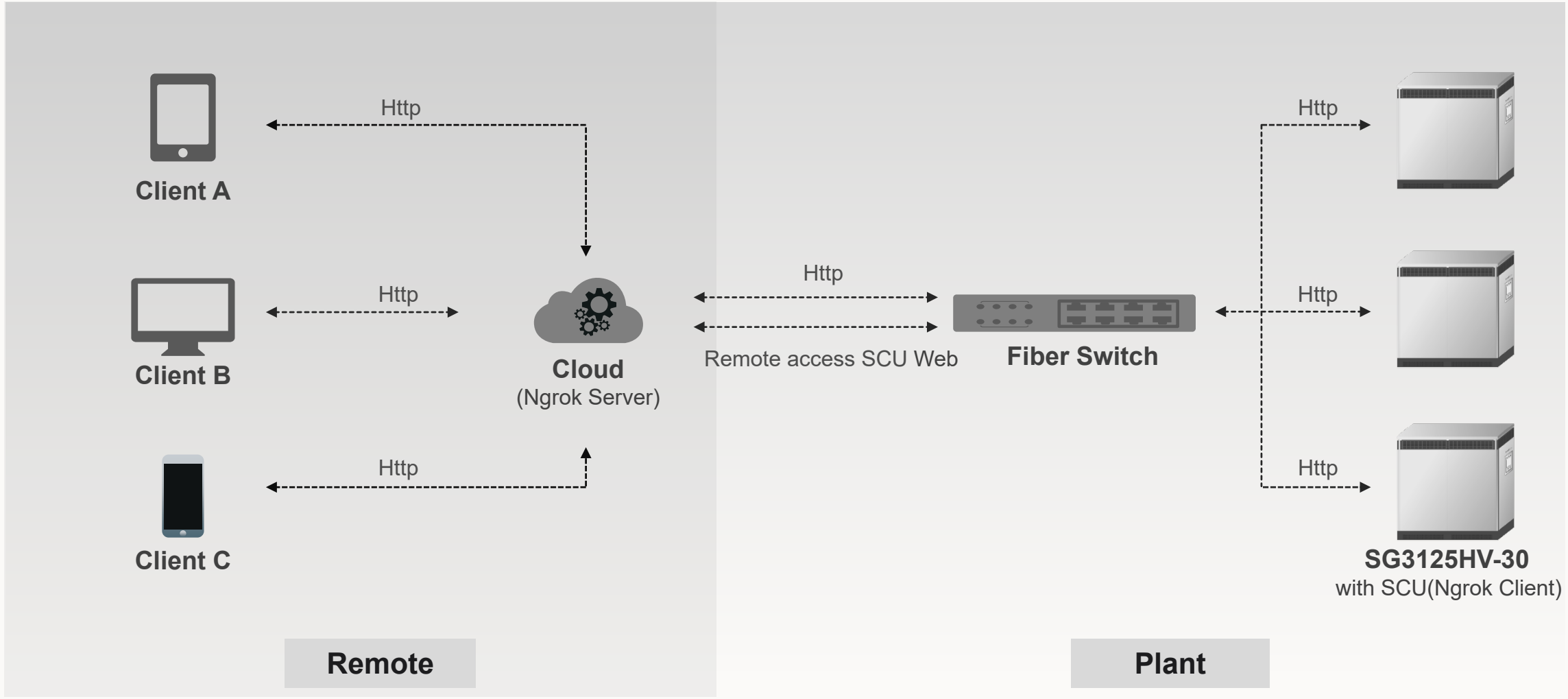
.....

3

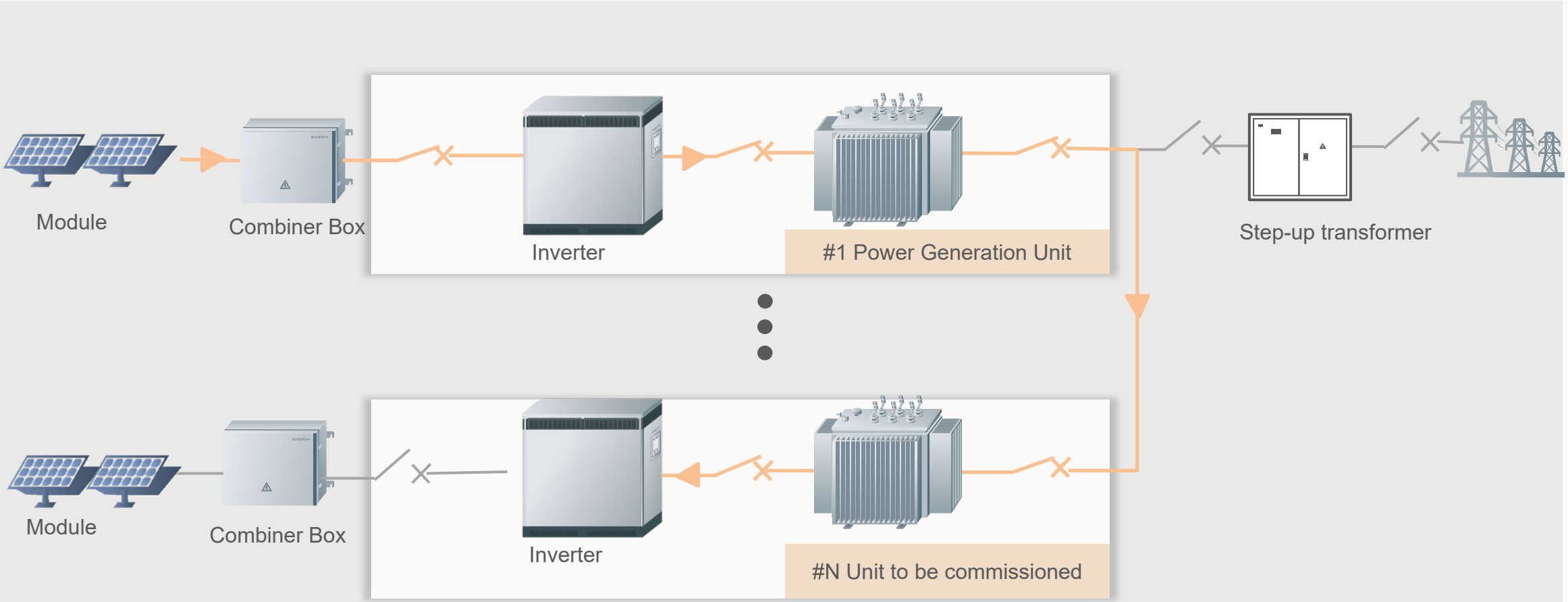
Newly upgraded SCU
6-core collaboration, 30+ diagnosis examples

- **1000+** Operation information monitoring
- **100%** Life prediction of key components
- **200+** Fault type identification

Remote Upgrade, Convenient O&M



Self-Constructed Grid for Pre-Commission



1 **Self constructed grid for equipment hot-commission before connecting to grid.**

Advantages-SG3125HV-30 Series

All-in-one, easy O&M
Advanced 3-level technology, max. inverter efficiency 99%
Max. 24 inputs, DC/AC ratio up to 1.8

Lower LCOE

Q response time< 30ms, save SVG device cost
Built-in ESS interface, support PCS mode
Stable operation in SCR ≥ 1.2 weak grid

Grid Support

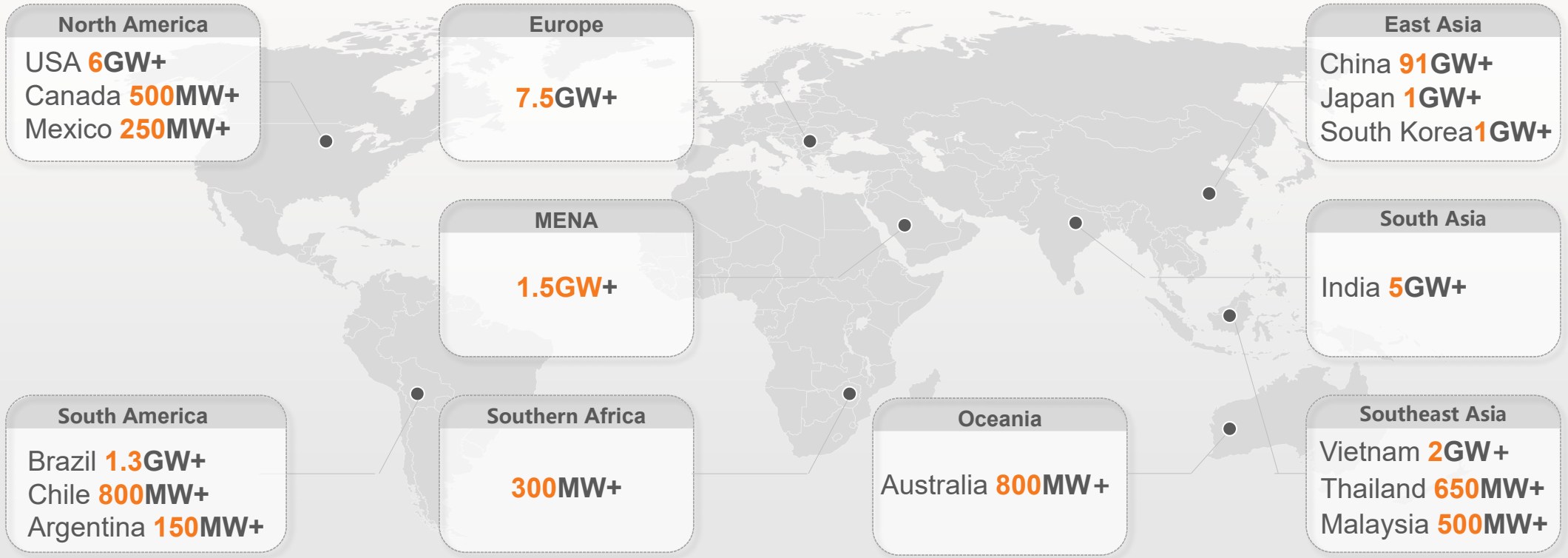
24h online AC insulation monitoring
IP65 protection, C5 anti-corrosion
High efficient heat dissipation, low temperature rise and long component lifetime

Safe & Reliable

120GW+ Inverters Installed Worldwide

120GW+ Inverters Installed

120+ Countries and Regions



References List of SG3125HV Series Products

Capacity	Client	Location
201MW	Bouygues	Vietnam
205MW	Sempra Renewable	U.S.A
400MW	Solaria	Spain
131MW	Sterling & Wilson	Vietnam
90MW	Aktor	Brazil
400MW	Softbank	India
250MW	TATA	India
100MW	Azure Power	India
97MW	Guizhou Power Construction	Argentina
130MW	China Power Construction	Belarus
32MW	Engie Fabricom	Belgium

Typical Domestic Reference of Sungrow Central Inverter

Ningxia | 2GW World’s largest power plant in pipeline

Jinchang | 100MW China’s first large-scale “PV & ESS"

Shanxi | 50MW China’s largest 1500V solar power plant

Suzhou | 50MW China's largest wind solar complementary power plant

Typical Overseas Reference of Sungrow Central Inverter

U.S.A	100MW 3.15MW Block1.4 DC/AC

Vietnam	50MW 6.25MW Block 1.3 DC/AC

Brazil	80MW 6.25MW Block 1.2 DC/AC

India	400MW 12.5MW Block 1.46 DC/AC

THANK YOU!