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24 January 2024

10:00 am – 11:00 am | GMT, London

11:00 am – 12:00 pm | CET, Berlin

12:00 pm – 1:00 pm | EET, Athen

pv magazine
webinars

Inverters: Exploring solutions for European C&I projects



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Hopewind

Welcome!

Do you have any questions?  

Send them in via the Q&A tab.  We aim to answer as many as we can today!

You can also let us know of any tech problems there.

We are recording this webinar today. 

We'll let you know by email where to find it and the slide deck, so you can re-watch it at your convenience.  



**Empowering Your Business with
Hopewind and Gaining More Value -
Efficient, Reliable, User Friendly**

01 Company Introduction

Company Profile



2

Leading industries

Renewable and Electrical industries

16

Years

Focus on R&D and product development

2017

IPO listing

Main board listed on the Shanghai Stock Exchange

100+

GW

The cumulative shipment of renewable energy products reaches 100GW+

Company Strengths



TOP 1

Market Leader of Wind Power Converters for Over 10 Years

More than 50 offshore wind farm projects, delivery capacity of offshore wind power converter exceeds 8GW.



TOP 6

TOP 6 PV Inverter Listed Company in China



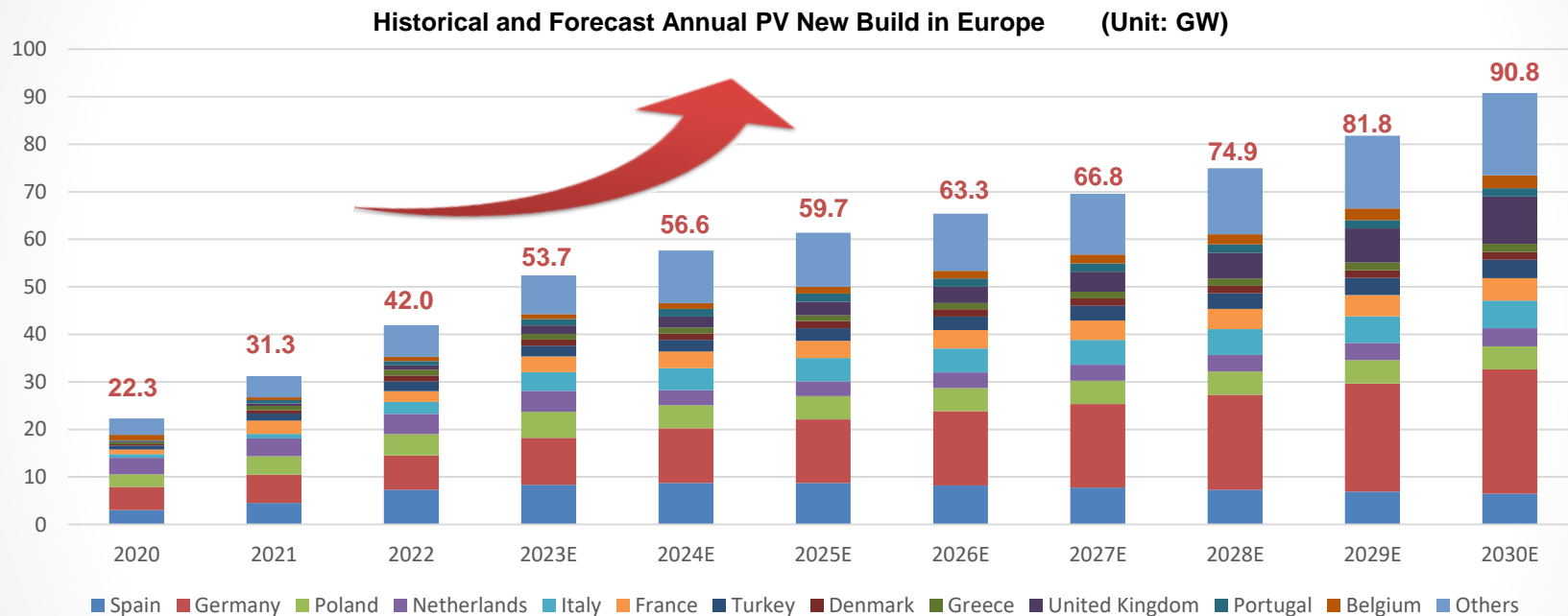
TIER 1

Tier One Manufacturers of Energy Storage PCS Shipments for Utility in China

02 Cutting-edge C&I Solar Inverters and Solutions

Market Insight






EU Overall PV Market Demand Being Strong



- Europe's energy transition is accelerating and photovoltaics market demand is quite strong.
- In 2022, the newly installed photovoltaic capacity in the European region is **42GW**, and in 2023 it will reach **53.7GW**.
- Renewable Energy Development Goals: REPowerEU plans to increase the proportion of renewable energy from 40% to 45% by 2030.
- Market growth of distributed inverters also has been proven surprising in EU

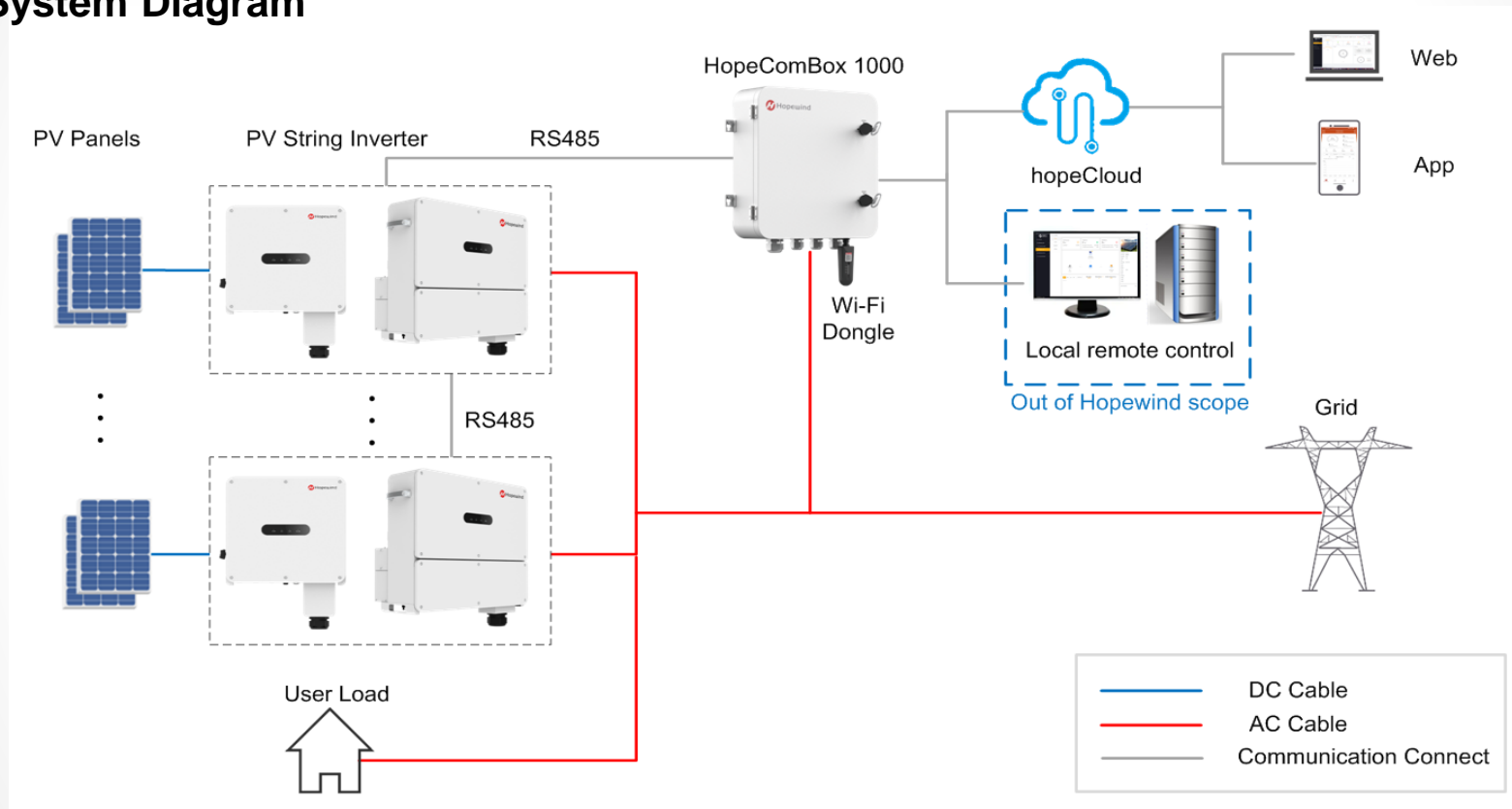
Data source: BNEF

Product Overview

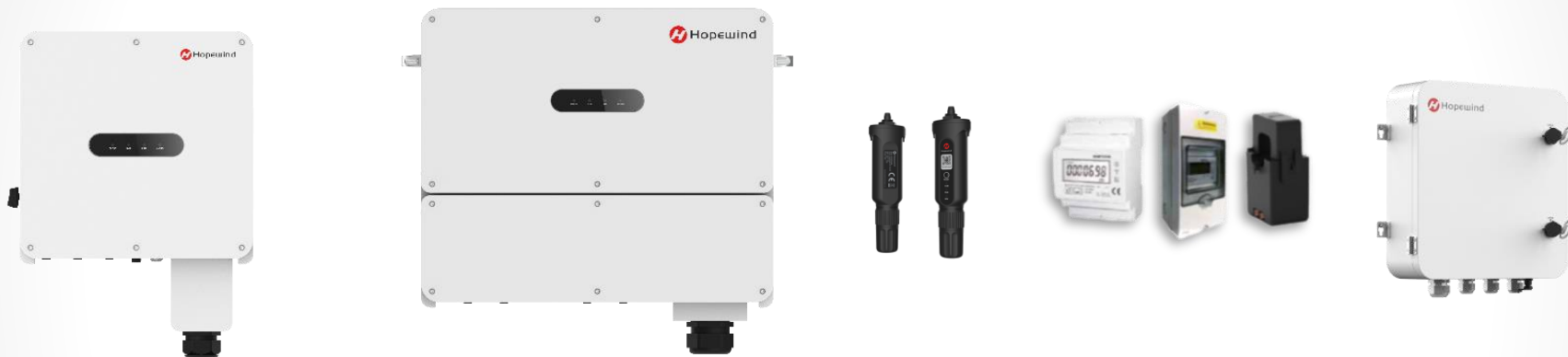
Hybrid	Residential		C&I	Utility
HYNV 5/6/8/10/12K-G01	HSSP 3/4/5/6/8/10K-G01	hopeSun 8/10/12/15/17/20/22/25/30/33KTL	HSNV 36/40/50/60/70/75/100/110KTL	hopeSunHV 250KTL HSHV 385K
				 <p>HSNV /385k</p>
Residential three-phase hybrid inverter 20A DC input.	Residential single-phase PV inverter, HS series, 20A DC input.	Residential three-phase 400V PV string inverter, 8~33kW	C & I three-phase 400V PV string inverter, 36~110kW	Utility PV string inverter

C&I Multiple Inverters in Parallel System Solution

System Diagram



Key basis to empowering your business



Efficient

- **Max. 20A string current**, compatible with all PV modules
- Multi-MPPT with Max. efficiency 98.60%

Reliable

- Wider AC voltage range, high adaptability to unstable grid
- **Smart air cooling, no derating at 45°C**
- Modular design & high quality components
- Built-in PID recovery function (Optional for above 60KW)
- Night SVG function (Optional for above 60KW)

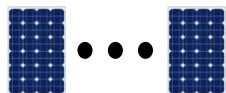
User Friendly

- Easy commissioning via APP
- Precise & intelligent operation monitoring (24/7)
- Simple and clear interactive interface

Efficient

20A Max. String Current, Compatible with All PV Modules

Supporting Unlimited PV Input Power and Improving Efficiency



210mm PV Modules

$I_{mp} > 17A$



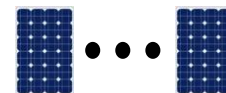
At least 13.3% PV input power lose;
For connecting bifacial PV modules,
this power lose can reach 20%



Inverter with
15A Max. string current



Abundant sunshine
makes peak current



210mm PV Modules

$I_{mp} > 17A$



It will take full
advantage of the
sunshine!



Hopewind C&I Inverters with
20A Max. String Current

Comparison
15A MAX VS 20A
MAX



The input current will
be limited to 15A!!



20A large capacity fully
compatible with the
 I_{mp} !

Efficient

20A Max. String Current, Compatible with All PV Modules
Saving Equipment and Installation Cost



210mm PV Modules

$I_{mp} > 17A$



Inverter with
15A Max. string current



Abundant sunshine
makes peak current

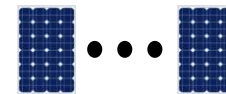
Comparison
15A MAX VS 20A
MAX



We have to use type "Y"
connector to divide the
current to connect to
separate string

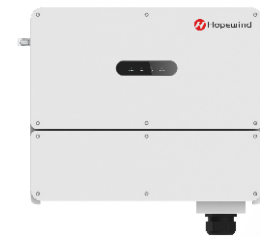


20A large capacity fully
compatible with the
 I_{mp} !
We do not have to use
type "Y" connector!



210mm PV Modules

$I_{mp} > 17A$



Hopewind C&I Inverters with
20A Max. String Current

Reliable

Wider AC Voltage Range, High Adaptability to Unstable Grid



Grid fluctuations can be caused by lightning, strong winds, trees or animals touching the power lines and accidents involving these power lines, changes in the load demand, faults, switching operations, or external disturbances, etc.



Reliable

Wider AC Voltage Range, High Adaptability to Unstable Grid

When grid voltage fluctuates by more than 10% and reach 450V!

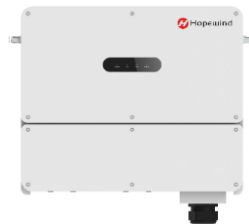
**Disconnected
to Grid**



360V~440V

Other Manufactures

**Still Normally
Operate!**



300V~520V

Hopewind HSNV
Series



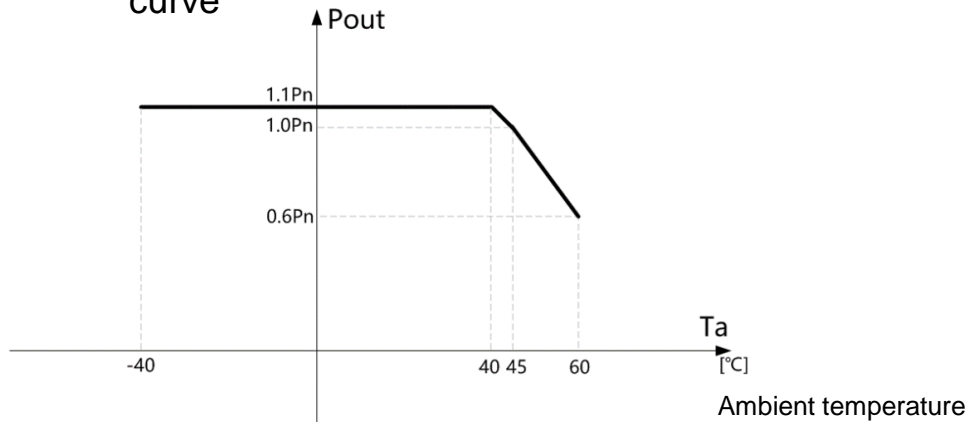
Reliable

Smart Air Cooling, No Derating at 45°C



Advanced Cooling System

HSNV110K-G01 temperature derating curve

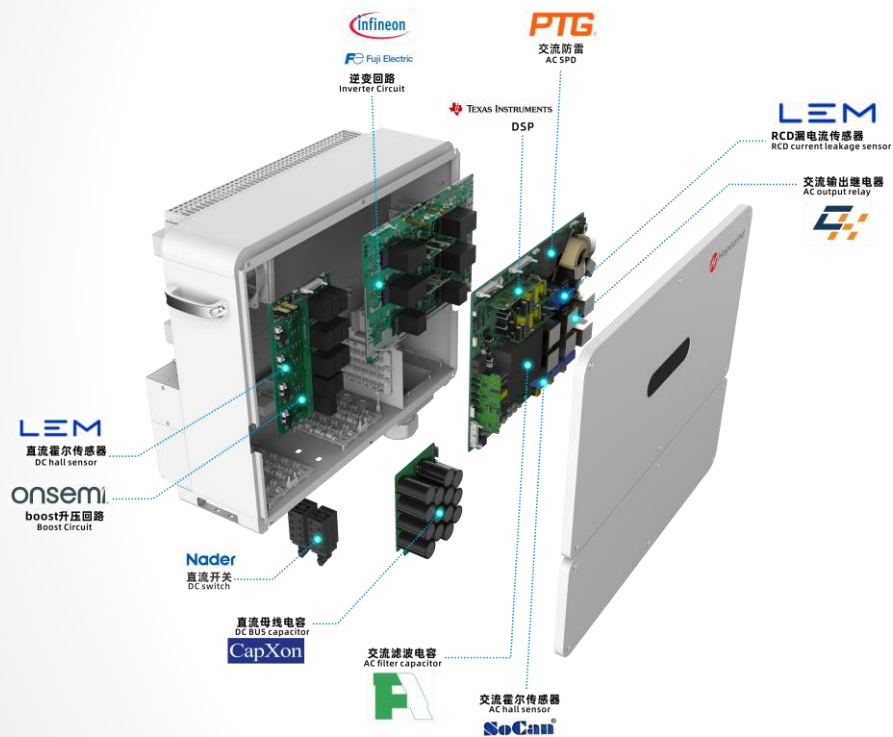


Components lifetime extends with lower operating temperature

Even at $40^{\circ}C$, the inverter can support 110% AC overloading!

Reliable

Modular Design & High Quality Components



Capacitance & Inductance



Power Device



Materials & IC



Connection & Switching



User Friendly

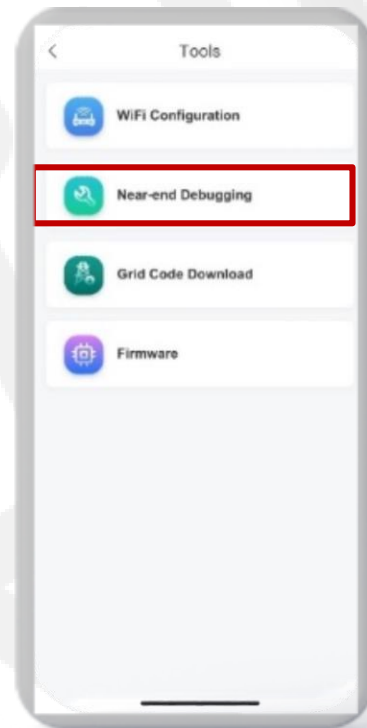
Easy Commissioning, No Fear of Poor Network Condition

Field Debugging

Optional Hopewind WLAN solution

supports local area network, no

worries about field network condition



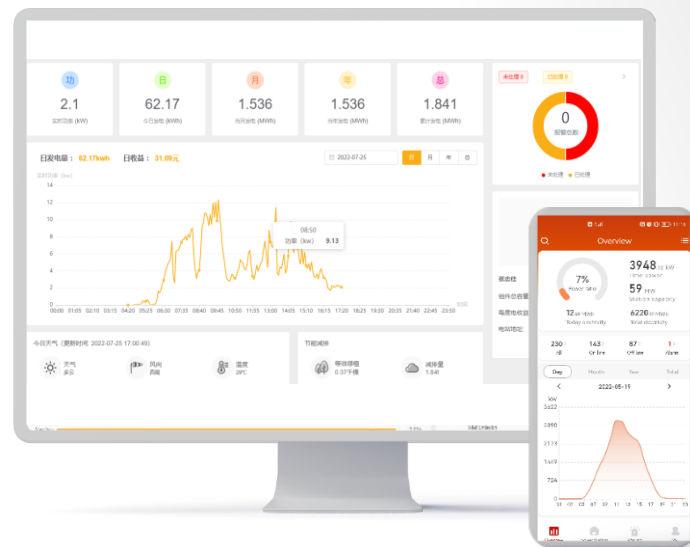
- Enables users to download the package & country grid code on smartphone in advance.
- No need to download/upgrade the version on the field, more convenient and time-saving.

User Friendly

Precise & intelligent operation monitoring

System can be monitored and controlled via Hopecloud, 24hrs remote control

Hopecloud 24/7 monitoring, with real-time performance and analysis of inverter, enhances energy management for end users, installer and retailer.



Low O&M Cost | Quick Troubleshooting | Simple and Efficiency

Real-time Monitoring

- Real-time sampling of various string current data
- Upload data for further processing analysis

Intelligent Analysis

- Comparison of power generation data between strings
- The power generation data of the same string is compared with the historical data
- Determine the health of components



**Comprehensive Support
Throughout the Life Cycle**

CONTENTS



Service Guarantee



Service Proposals



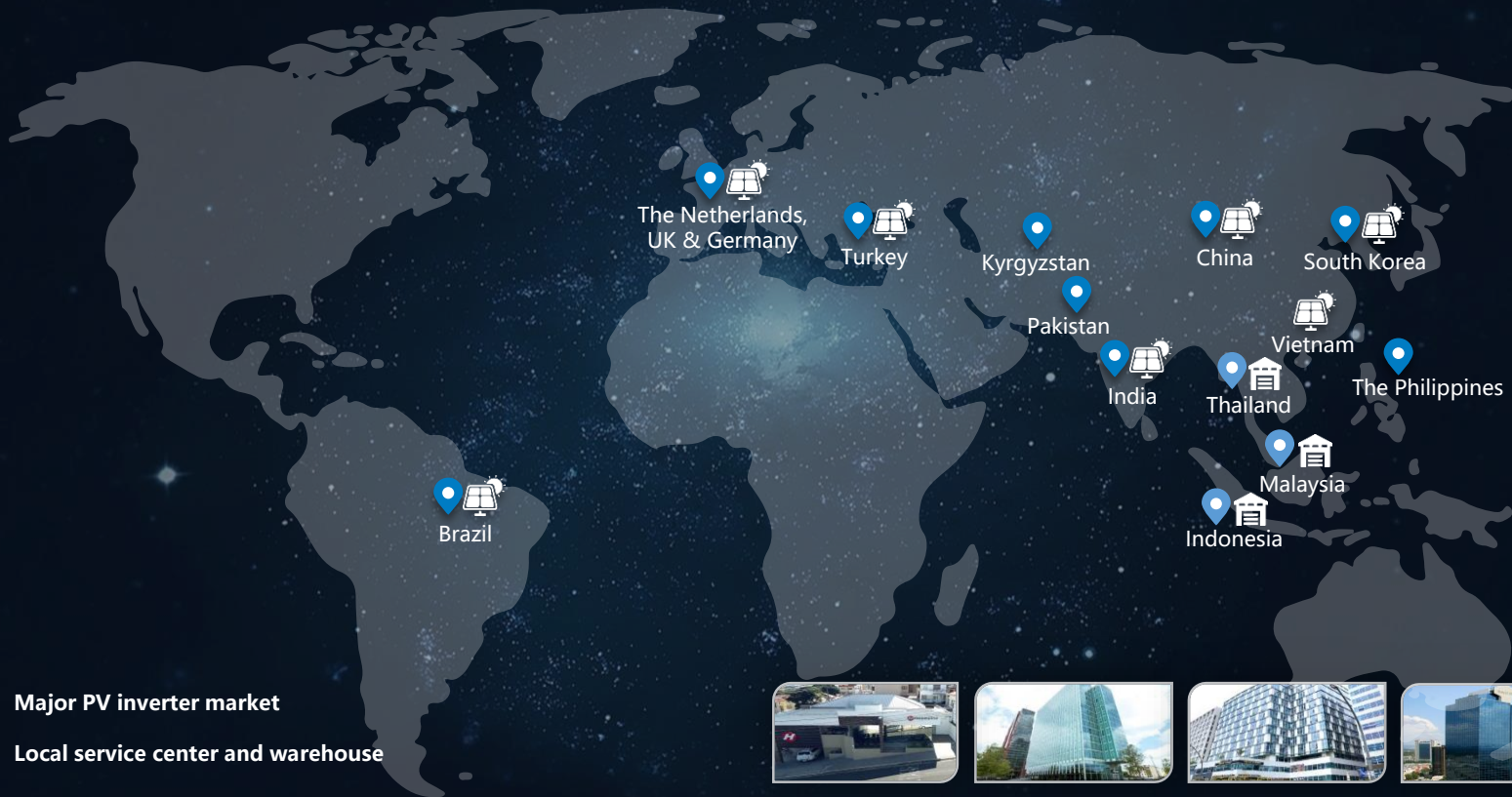
Customer Feedbacks






Global Best Practices



Service Guarantee-Service Center Layout



-  Major PV inverter market
-  Local service center and warehouse
-  Future warehouse



Brazil



The Netherlands

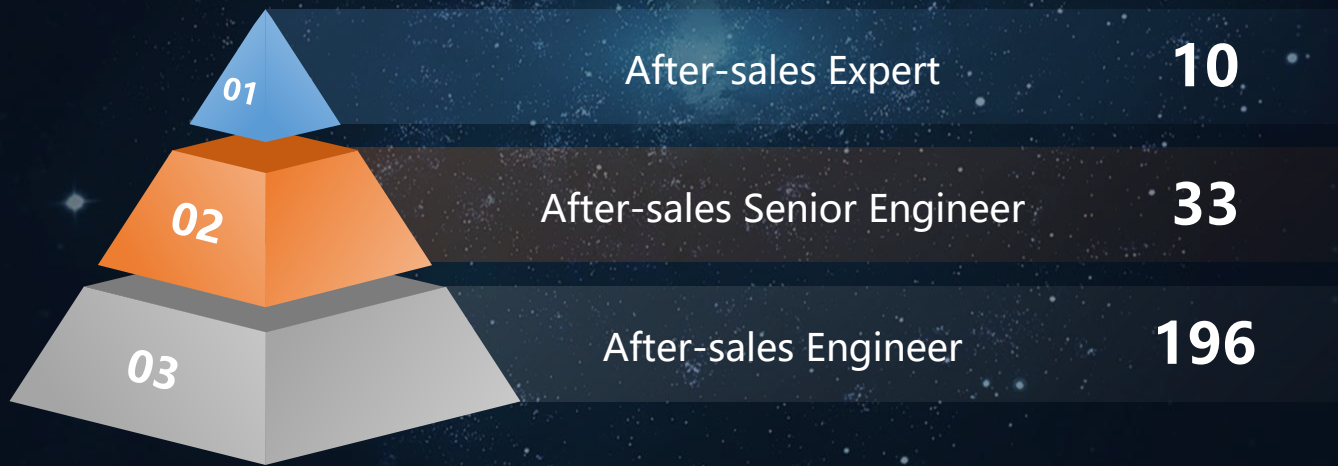


South Korea

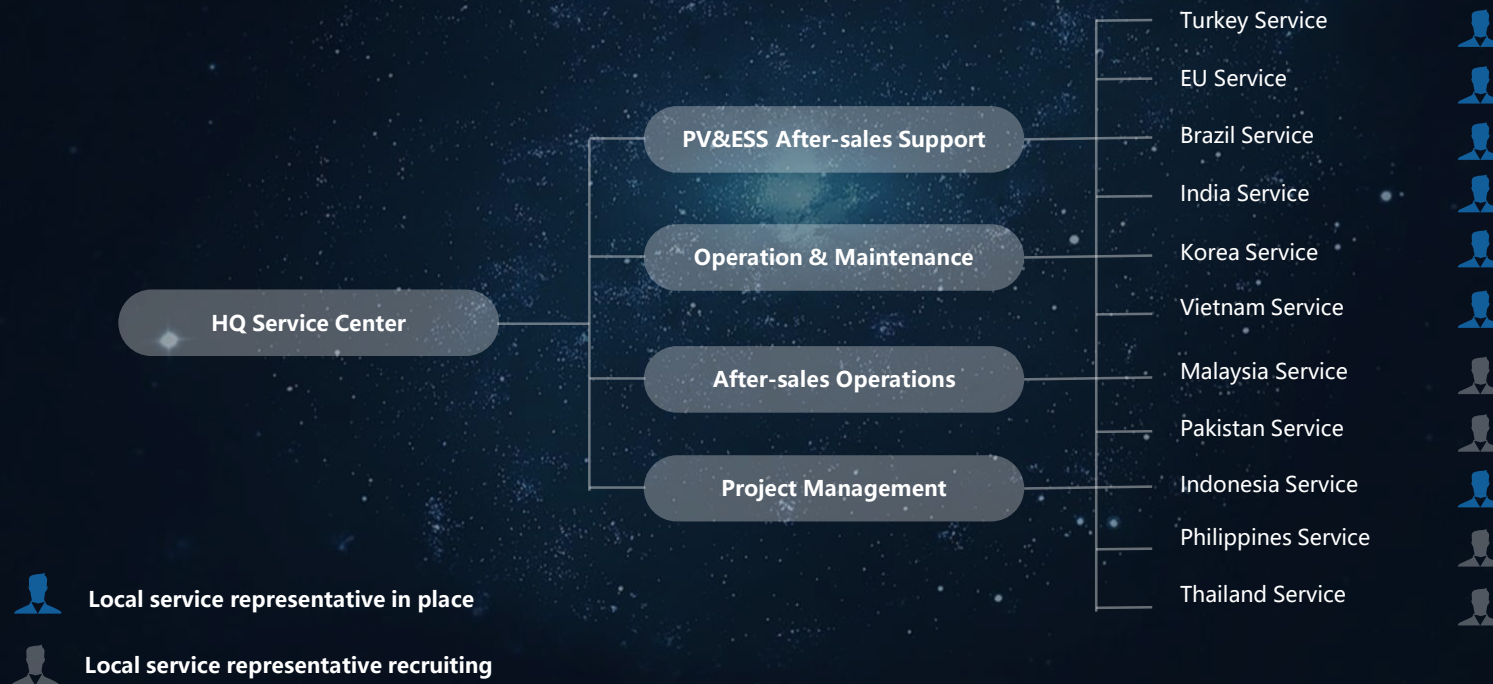


Turkey

Hopewind has a group of after-sales service experts and engineers in HQ, 100% college degree and above for overseas services, with high-power electronics technical background and multilingual capability.



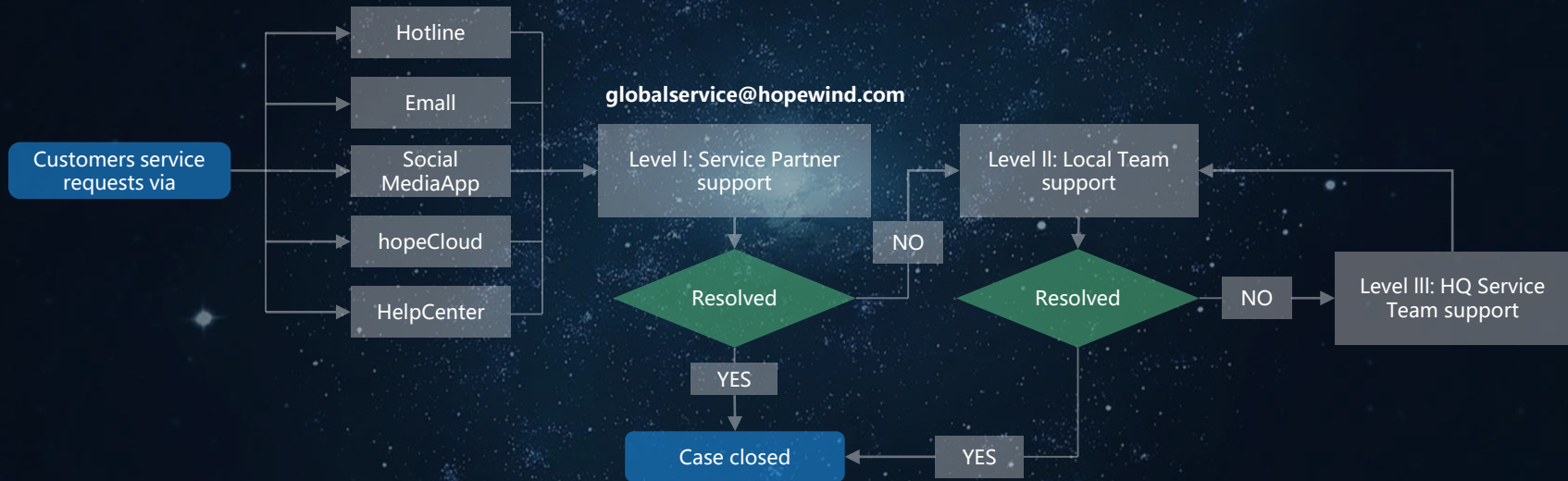
Hopewind has accredited many professional 3rd party service providers in major PV target countries, also with local service representative, HQ has designated technical manager and R&D engineers to support each country.





Service Guarantee-Communication Channels

Kinds of communication channels and regular meeting via Teams, Zoom, VooV and etc.



Channels to connect





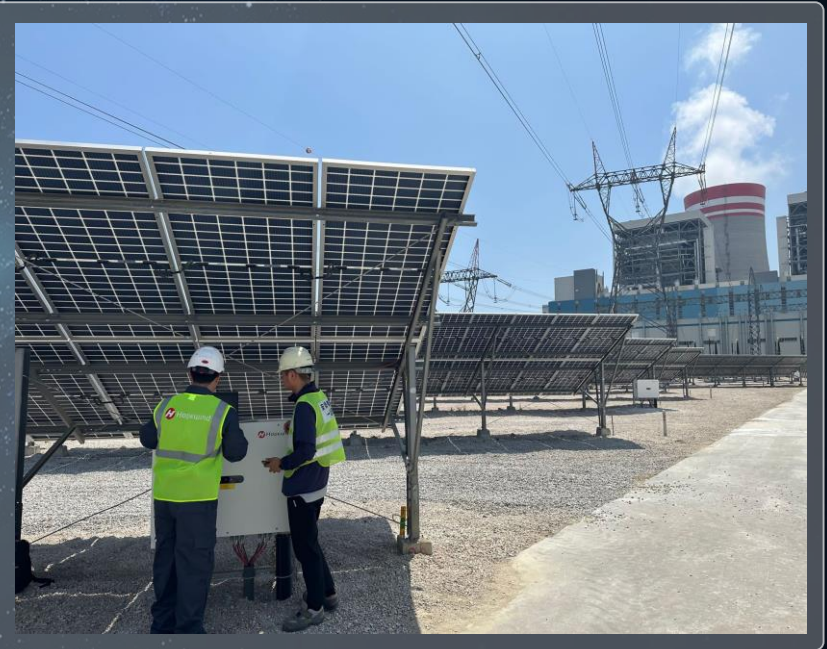
Training Type:

1. Provide Online Training and Offline Training.
2. On-site Training or In-house Training.
3. Regular Training and Customised Training.

Training Content:

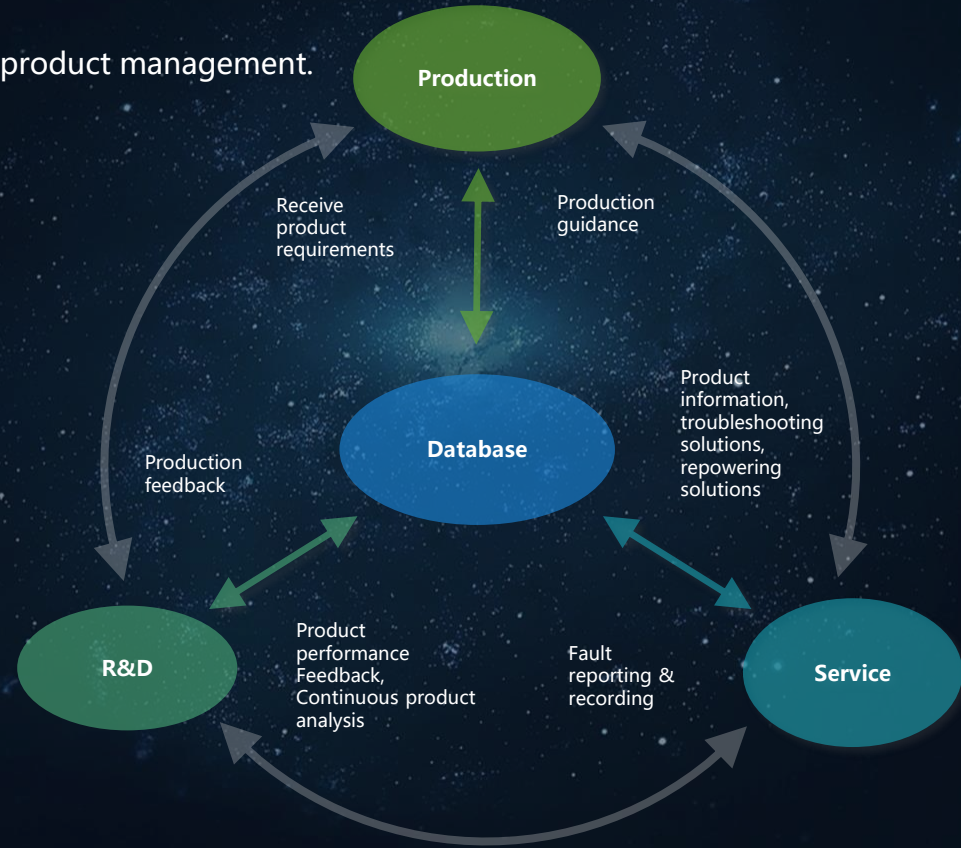
1. Safety, Installation, Product spec., Commissioning, Troubleshooting and etc.
2. Fault Summary and Solutions.
3. Service Policy and Flows.







The whole life cycle of product management.

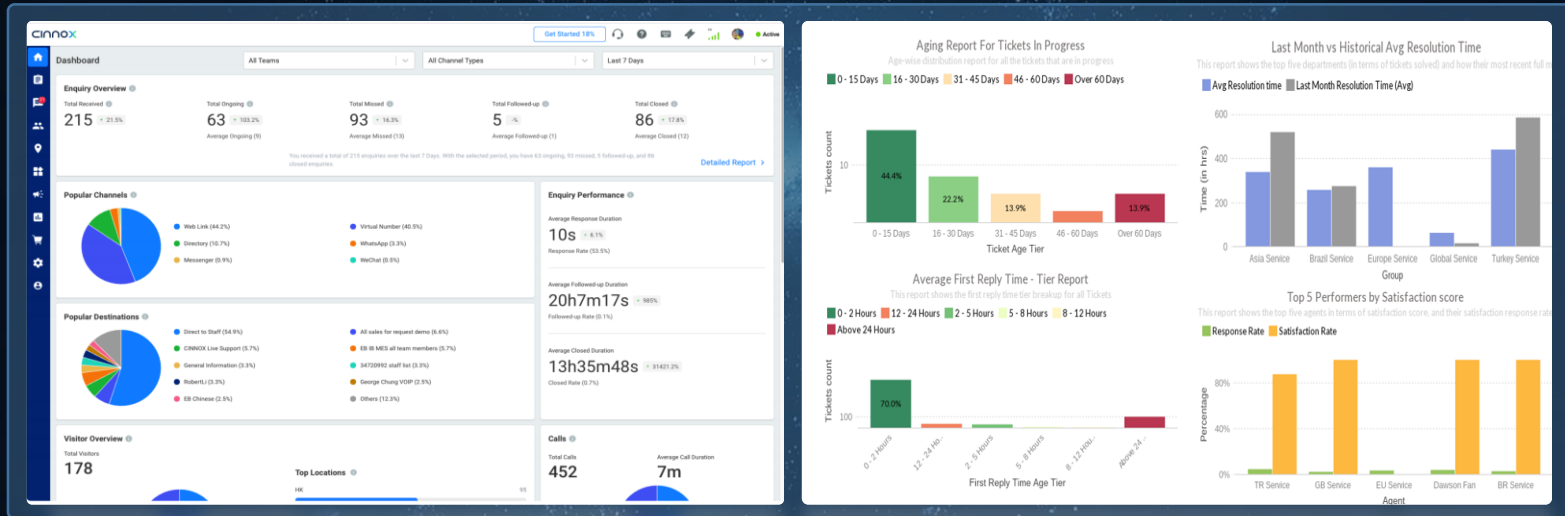




Service Guarantee-Digitalised Management



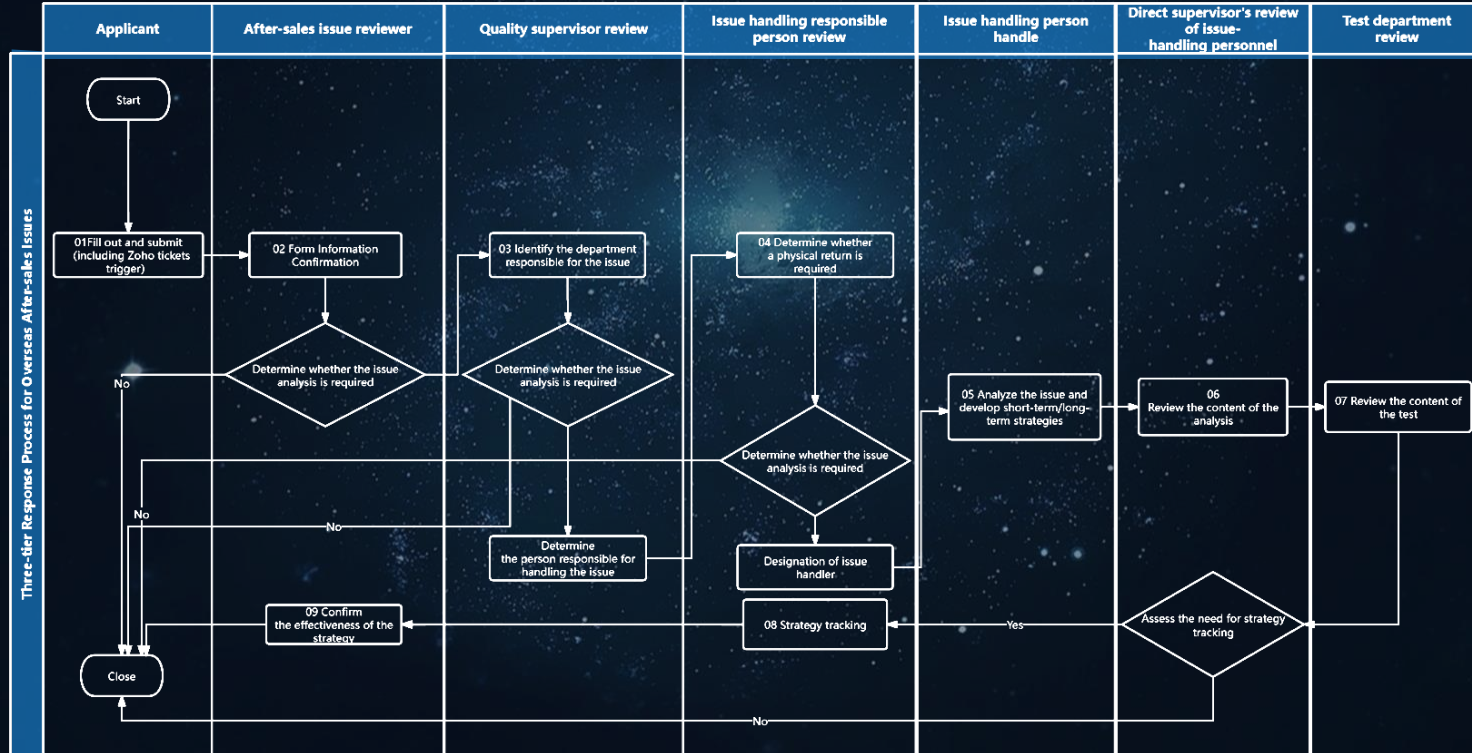
All service requests are monitored through the system (call center and tickets system) to ensure efficiency and resolution.







Continuous Improvement: 3-level Electronic Flow for Issues

Some of issues will go through Quality, R&D, Testing and manufacture departments, to find the root causes and take countermeasures to prevent it happen from the future production.







Service hotline + Instant Messenger+Meetings




Local service providers+ HQ service engineers are ready to assist on site if required




Service Contingency Plan for spare parts availability



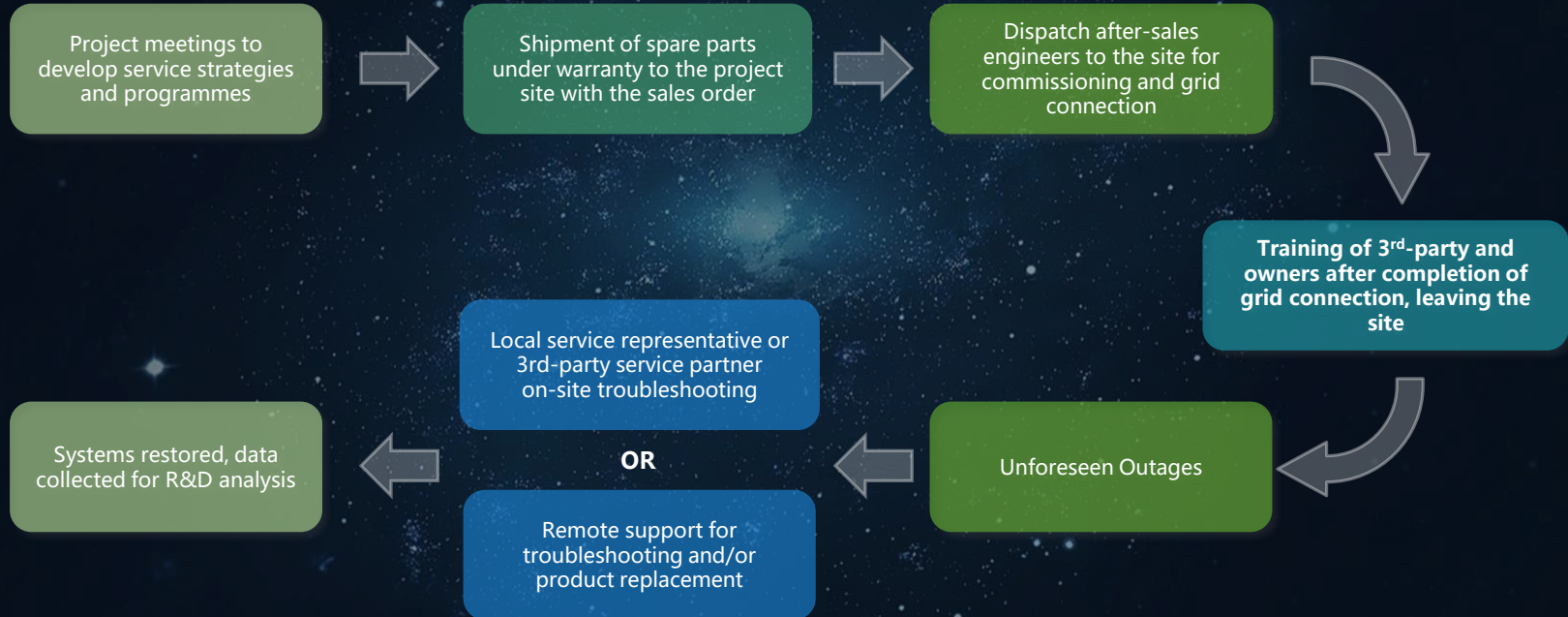
Designated specialist to provide timely response to customers' on-site service needs



3-Level Technical Support Structure (incl HQ+R&D) to ensure different levels of availability upon customer request



In-house training for commissioning, workshops and PV plants + Online knowledge base



Note: 1% spare parts are shipped with the order, as emergency spare units for large-capacity projects.

Köfteci Yusuf Meat Integrated Facilities

(2.7 MW | 100 KTL String inverter | Turkey)

"We chose Hopewind because of its quality and competitiveness. We can get fast support as technical service. Since the system has been activated, we have not encountered a malfunction. With energy monitoring applications, we are able to monitor the system in a healthy way."


Automotive Spare Parts Factory

(100 KTL & 30 KTL String inverter | Turkey)

"Having limited capacity on rooftop need maximizing the AC capacity with different types of inverter types to give flexibility and high efficiency in output. Hopewind offers a wide range of solutions in C&I segment for PV."

International expert team both in EU HQ and China HQ monitored together with the local team support to efficiency and quality of the work on site."





16.2MW Photovoltaic Project at SASA
Polyester, Turkey



This project is already making a significant impact, preventing a remarkable 14,500 tons of CO2 emissions annually. That's equivalent to saving 1,318,181 trees.

151 PCS of
Hopewind 110KTL
inverters



Global Best Practices-Utility-scale Application



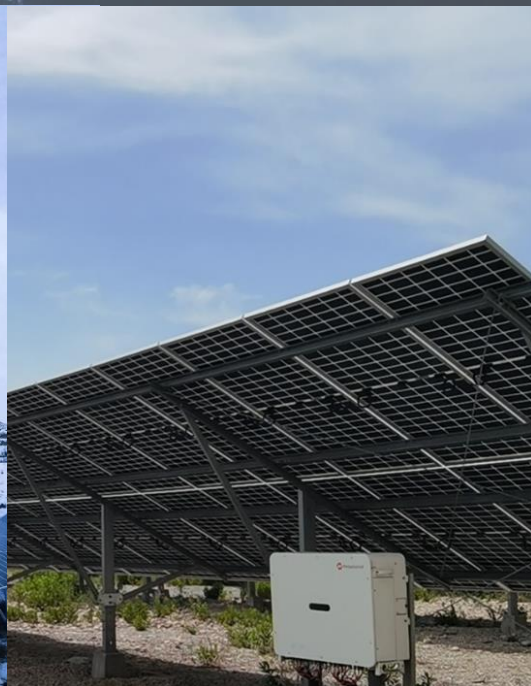
200MW

China



100MW

China



100MW

Turkey



Global Best Practices-C&I Application



480MW

China



1.6MW

Turkey



1.3MW

China



Global Best Practices-Residential Application



China



Vietnam



Brazil

THANK YOU

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Q&A



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Hakki Baris Karaca

Head of Europe
Hopewind

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Neoen shut down Australian solar-plus-storage plant after 7 years

by David Carroll



Most-read online!

Largest US solar-storage project goes online

by Ryan Kennedy



Coming up next...

Thursday, 25 January 2024

2:00 pm – 3:00 pm GMT, London

3:00 pm – 4:00 pm CET, Berlin

Tuesday, 6 February 2024

11:00 am – 12:00 pm EST, New York City

5:00 pm – 6:00 pm CET, Berlin

Many more to come!

**N-type trends in
2024**

**Understanding
airplanes vs
drones in aerial
inspection**

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Matthew Lynas
Editor
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**Thank you for
joining today!**