



GoodWe Solar Truck

Well stored

As residential PV systems are becoming increasingly complex and new technologies come to market, PES was keen to hear from Thomas Haering, Managing Director of GoodWe, about its installer program and how it's becoming a one-stop-shop for complete storage systems.

PES: A warm welcome to PES Thomas, it's lovely to have you with us. It would be great to start with an introduction to GoodWe if you don't mind?

Thomas Haering: Thank you for giving me the chance to speak with you. Let me give you some numbers to allow you to put GoodWe in the right perspective. GoodWe is a world-leading PV inverter and energy storage solutions manufacturer. With an accumulative delivery of more than two million inverters and installation of 23GW in more than 100 countries and regions,

GoodWe solar inverters have been used in residential and commercial rooftops, industrial and utility scale systems and range from 0.7kW to 250kW.

GoodWe has more than 2300 employees situated in 15 different countries and is regarded as the Global No.1 storage inverter by Wood Mackenzie in 2020. GoodWe is also ranked as one of the Top 10 inverter suppliers by IHS Markit and has achieved six consecutive TÜV Rheinland 'All Quality Matters' Awards. Furthermore, last year GoodWe was listed as a public limited

company on the Shanghai Stock Exchange (Stock Code: 688390).

PES: What levels of growth have you experienced since the company was founded?

TH: Since its founding, our mission has always been the global energy transition, to create a sustainable future for earth, for mankind, and for future generations. Starting from these foundations, the company has invested heavily in recent years in internationalization, opening branches on all



continents, with sales staff, highly qualified technicians, service centres and in particular a strong distribution network with long lasting partnerships.

PES: Is this success mainly in Europe or on a more global scale too?

TH: Our success can be considered global, but certainly the investment in resources for the growth of the European headquarters located in Munich has been fundamental in making GoodWe a brand recognized as one of the most important market leaders. Due to the rapid growth in the last three years, since the founding of the GmbH in Munich, GoodWe has now made an even stronger commitment to create a centralized structure for its employees and especially for its customers.

This significant investment was the basis for GoodWe Europe GmbH to become the European headquarters, centrally bundling the activities of our historically important pioneer branch in the UK and the ever-successful Dutch branch with the German GmbH and creating a coherent powerhouse in Europe. Three offices in Europe, more country managers with a local presence in each country and two European warehouses allow the company to serve its customers in their own countries and territories and are an important milestone in the ongoing internationalization of the brand. The GoodWe EMEA headquarters in Munich is a commitment to long-term planning of cooperation and to building confidence in a common future for all our customers in EMEA.

PES: As the market for residential and small commercial energy storage solutions gathers pace, how do you overcome the challenges of having enough installers on the ground to keep up with demand?

TH: GoodWe's core strategy is to use synergies efficiently together to act more effectively, but also to further develop sustainable cooperation with customers on site and to be able to better address their interests. To be able to identify with a business partner, it is crucial that this partner has local competencies and is fully committed to a joint approach. It is important for us to show our clients we are there for



Thomas Haering

them, and that local staff can analyse and define market strategies and requirements with the purpose of better understanding and adapting to their needs.

For this reason, GoodWe Europe also launched the GoodWe PLUS+ installer program last year, aimed at consolidating professional PV training and after-sales service under its new GoodWe PLUS+ initiative.

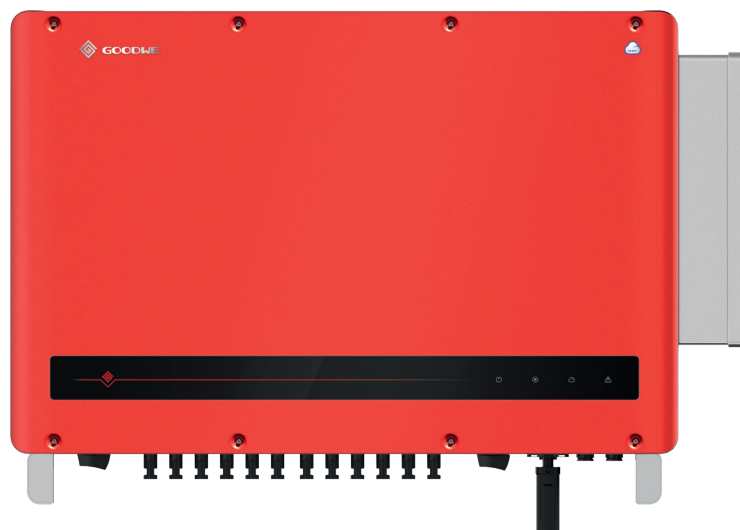
PES: Can you explain a little about your installer program and how that works?

TH: It is a customer program with access to a world of benefits and rewards for installers. It gives access to exclusive support, professional training, and warranty extensions.

Electric and solar installation companies across Europe can also benefit from a special warranty extension to 10 years for all on-grid inverters up to 20kW at no extra cost. GoodWe PLUS+ offers members very high quality service and customer support at the time when needed, as well as countless



Lynx Home U Series LV battery



HT Series inverter for C&I and Utility PV plants



GoodWe Headquarters in Suzhou, China

opportunities for solar professionals. As of today, we are proud to say that we already have almost 1000 GoodWe PLUS+ certified installers all over Europe.

PES: How important is it that installers have access to the right support and training, particularly as the solar market continues to grow and presumably more opportunities for them open up?

TH: We put the installer at the centre of our focus. All market activities from us need to keep this always in mind, whether we talk about manuals, sales arguments to be used for the customers of our installers and most important our service which is the crucial element of success. Among our distribution partners, also installers can experience one of GoodWe's greatest strengths, which is customer loyalty. Installers require to be technically well prepared to support their customers in turn.

This is why GoodWe EMEA decided to invest in this project as we realized that residential PV systems with the addition of storage systems are becoming more and more complex. With the addition of new technologies required by the market and by users, it is important that installers are kept up to date on the latest news, new applications and how to proceed with an installation in the simplest and safest way with the support of the manufacturer. This also allows our distributors to count on a stable and reliable manufacturer, both from a commercial and technical point of view.

PES: Aside from the installer program, what are some of the products that you provide to distributors and their installer customers? It would be good to hear in particular about your new Lynx batteries

and the advantages of these compared to your competitors.

TH: As a global leader in storage systems, GoodWe decided to implement its product portfolio with the introduction of low voltage batteries of its own production for residential PV systems. By adding our own LFP batteries to our portfolio, we became a one-stop-shop able to offer not only complete storage systems but also a very high level of flexibility with a solution for all installation requirements. Major advantages are quickly stated: optimized solution between all components (battery and inverters); support and warranty from one manufacturer; no compatibility issues between batteries and inverters; plug and play inverter communication with Auto-Recognition of battery modules by the inverters.

Our new Lynx Home U series battery is a low voltage lithium battery especially designed for residential applications with superior performance, safest battery technology (LFP) and optimizing user experience. Within this new product we can grant: easy installation, comes from in-built auto recognition function and plug & play design; flexible combination LV batteries with our broad inverter portfolio; hybrid solutions for new projects and retrofit solutions for upgrade of existing installations; a wide range of system sizes for various customer needs thanks to the scalability of our batteries and inverters; possibility to cover 1-phase and 3-phase grids; IP65 Outdoor rating, suitable for indoor and outdoor installations.

PES: Residential is a major market for GoodWe, but what about the utility scale market too? It would be great to hear about any recent projects and new products here.

TH: Given the growing number of utility-scale plants in the world as well as Europe, we decided to develop new dedicated products and solution for this market segment given our decade of experience in research & development and production of string inverters.

Our flagship product is the HT series inverter which comes in two versions: the 1100V version for commercial and industrial rooftop and ground installations with a range from 73 to 136 kW, and the 1500V version for large ground installations which includes two models: 225 and 250kW.

We also implemented a Project Competence centre in Europe to fully support EPC's and developers both at commercial and technical stages and we are increasing our staff on a monthly basis in Europe in order to be fully focused on project solutions. We are proud to say that, despite only recently entering this market, we have already sold far more than 1 GW of our HT string inverters for Utility projects PV plants.

PES: How do you go about introducing new products and solutions to customers? We have heard about the GoodWe truck Roadshow that you launched recently in Europe. Can you tell us a bit more about this initiative and the thinking behind it?

TH: The idea of the GoodWe Truck project is to bring GoodWe much closer to our distributors, to give them the opportunity to use a dynamic and interactive tool to introduce our products to their customers: installers. They can also take advantage of the technical and commercial GoodWe team for in-depth information on the products and their applications, as well as technical training like our GoodWe PLUS+ program and

see and touch our products installed inside the truck.

This initiative has been greatly appreciated by our distributors in Europe, as they have found an extremely effective and innovative way of organizing face to face events at their premises, where allowed. The first roadshow was in Poland and the next one will be held in September in Spain. Later we will also stop in the Netherlands, Germany, Italy, and Greece.

PES: Focusing on GoodWe globally now, where does the company rank in terms of market share in each territory?

TH: As of global rankings, the latest data confirms us as: No.1 as global Energy Storage Inverters Supplier, Nr.1 in Czech Republic, Nr.2 in Australia for rooftop PV installations, Nr.3 in Turkey, Nr.1 in China and India for rooftop PV installations and Nr.3 in Spain for rooftop PV installations.

We offer high-quality storage solutions for all market requirements at affordable prices. We are proud of our achievements, but our goal is not only to expand further into new market segments, but to maintain our leading position in established markets.

PES: Is the product portfolio the same worldwide as it is in Europe? How does it compare?

TH: Our product portfolio is very broad indeed. Consider that we have seven different models of residential PV inverters, 12 energy storage inverters, eight models of inverters for C&I applications, two models for utility-scale plants, and four models of batteries also produced by GoodWe.

This allows us to fully satisfy the needs and

demands of our customers for each type of photovoltaic system. With the introduction of our own batteries GoodWe will lift the storage market, which is becoming more and more important, to a new level. With our expanded product portfolio, we can offer the customers the right device for every application from photovoltaic inverters to storage solutions for utility, commercial and residential applications.

Clearly, within this wide range of products, some have been designed specifically for certain markets, such as inverters for North America, which require specific design and dedicated UL certifications, as well as inverters for the South African market such as the EHB series inverter which includes AFCl-Ready function and can support Rapid Shutdown.

PES: It's been 11 years now since GoodWe was founded and there's been a lot of change in the world of solar energy in that time. What are your predictions for the future and what do you think the market will look like 11 years from now?

TH: We understand that the renewable energy market has a high potential of growth, probably more than ever. No matter what other challenges the world might face in the foreseeable future, climate change will certainly be among the top focus areas of all world leading economies.

The pressure for governments to cooperate by acting more persistently and credibly will increase in the coming years, while the climate will be showing more and more extreme behaviour. We want to be part of the solution, not of the problem. We want to be regarded as one of the market leaders.

This applies for multiple angles, like quality and reliability, but also innovation and a high value for money spent. We want to be regarded and respected as a company who leads this industry into a future where the younger generations will have a fair chance of living on a liveable planet such as my generation has had.

PES: For GoodWe in particular, what's next do you think?

TH: Our vision is to create a new era of smart energy and be among the pioneers of innovative solutions that make our mission of being the main driving force in the global energy transition. GoodWe is in the right place at the right time.

www.goodwe.com

About GoodWe

- Founded in 2010
- European headquarters opened in 2018
- Branches in Hong Kong, Australia, Germany, UK, Benelux, Japan, US and South Korea
- 2,300+ employees in total, including 500 research and development staff and 70 overseas staff
- 2020 turnover was around \$244m
- Global partners include Krannich, Sterling & Wilson, Panasonic and Viessmann, plus GE as licensed partner
- 25 GW solar inverters capacity and 400 MWh battery capacity

