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Wind technology knowledge and expertise is a must

PES met up with Marten Seifert, MD of RECASE Regenerative Energien GmbH, Germany. He is very excited about the growth in projects and puts this down to the expertise and knowledge of his team of engineers.

PES: Welcome to PES Wind magazine. Thanks for talking with us. Would you like to begin by explaining a little about the background of RECASE and how you currently serve the wind industry?

Marten Seifert: RECASE is a small but efficient company made up of long serving wind turbine engineers. Lorenz and I founded RECASE in 2013, after gaining a lot of experience with wind turbine (WT) manufacturing companies over many years.

Together with Maurice Graber, who has been our project engineer from the very beginning, we have been able to develop services for our customers in the industry, based on our knowledge, quality and capacity.

Two years later Jörg Zeumer, the main electrical designer and developer for REpower wind turbines from 1998, joined our team. Today we are a team of 8 engineers, including the founders, one administrator and additional students from different fields of engineering expertise.

PES: You work in different energy sectors, but how important is the wind industry to you?

MS: For sure the wind industry is our main business. We work for various wind turbine manufacturers, offshore substructure and installation providers and operators of wind farms.

Our knowledge and experience is definitely addressing the on and offshore industry with a focus on the WT design and technical interfaces, to complex offshore environment.

On top of this traditional business we have established regional business for energy concept design, self-consumption systems for production facilities etc.

We have found out that the technical system design for a fabrication place, based on solar power, small wind turbines and electrical storage is quite similar to the complex interfaces and varying operational phases of an offshore wind farm or substation, with limited grid capacity during the installation phase.

Another driving factor is a specific situation here in Northern Germany, where wind energy is available in large scale and is frequently curtailed by the grid operators to prevent electrical grid overload.

We are active in different strategic, political and also specific projects to initiate intelligent use of Germany's wind energy.

PES: We note that you have a very professional and well qualified team, is this key to your success?

MS: Yes, our team is our key to success. As RECASE provides engineering services and no goods, our people are the only deciding factor of quality to the customers' satisfaction.

It is built-up of engineers from different professions and experiences. Lorenz and I, as well as other team members, have long term involvement working for turbine manufacturers. Other team members were students we trained, within their internships and bachelor/master thesis work and kept after they finished their defined projects and tasks.

Another aspect of 'Team' is, that we, as a small engineering company, need to be part of a competent and reliable network with other experts in the branch. In order to better serve our customers we often firm up with industry experts for different projects. These bring know-how or capacity that is required for a specific project and add to our success.

PES: Would you say that wind technology knowledge is crucial for today's offshore projects?

MS: This is indeed a question that is discussed quite a lot throughout the industry today. We recommend having a view on the whole picture: It is obvious that offshore projects require an understanding of the specifics of wind energy conversion, aerodynamics, electrical systems, mechanical structures, to be capable with challenging environmental conditions and many further engineering spheres, which necessitate experience and knowledge in this field of expertise.

These projects also require experience and capacities from the classical plant engineering and construction, offshore and marine technology, in particular, to be successful in increasing project sizes both offshore and also onshore.

Companies and/or project specific cooperation, which are able to provide all kinds of expertise and capacities, will be the most successful ones.

PES: You offer the whole package to the wind industry. What sort of services can you provide at the concept stage?

MS: RECASE can start working from the concept idea on and help develop detailed ideas for the customer requests. After the



Marten Seifert

concept phase RECASE is able to develop customer specific hardware, software or service products together with the customer including sales, operation and maintenance documentation and if possible prototype testing.

A typical task for RECASE during the concept stage of on and offshore projects is to analyse the available information of the planning status, for completeness and project suitability. From our experience in the operation of wind power plants, we know exactly how and where to look at design, grid connection, WT choice and O&M concept.

Finally it comes down to a technical due diligence at the concept stage, where we can, in cooperation with our experienced partner, provide companies a compelling result.

PES: Please can you tell us what you mean by smart due diligence and why it is important to your clients?

MS: The wording is bit provoking. Smart due diligence provides a focussed and quickly available insight into a project status. The level of detail, focus and scope can be agreed between the parties and the results presentation will be prepared to ensure the correct content for the addresses.

The smart due diligence is important for our clients because they benefit from our know-how and have an expert view on their possible investment. In many cases we have been asked to provide this for a second view on assets or project pipelines of developers.

PES: We know RECASE is also involved in inspection and analysis; we would like to know more about this.

MS: In some cases, the wind farm operator observes an unsatisfactory performance of the asset or parts of it and asks us to find



the root cause. We then perform detailed performance analysis based on operational, SCADA, data and can help with our know-how to access and solve difficult technical issues.

If it is not possible to analyse the full case, based on remote access to the wind turbines and their data, we plan and carry out site inspections based on the analysis, done previously and in cooperation with the experienced, on site staff of the project. As soon as the root cause is known, we can suggest and perform recovery measures and the required monitoring their efficiency.

PES: How important are your engineering solutions to the end user, what are your specialties?

MS: We as RECASE are mostly working on client specific solutions where the client itself has no manpower or expertise to engineer the solution. For this case it is our speciality to quickly jump into the project, understand the demands, specify the solution and find the suitable solution matching the clients' requirements.

PES: What solutions have you provided?

MS: We have developed a customer tailored electrical design for the offshore transition piece for a North Sea wind farm. The end user will benefit from a solution that considers all of his requirements for operation and a full integration of the wind turbine and its sub systems into the project.

For manufacturers of WT we provide project specific solutions for fire detection and fire extinguishing, remote control functionality, grid code compliance engineering etc. In many cases we frame our solution also by taking care for certification bodies and authorities, to finally provide a solution that is ready to use.

PES: Why should a client choose RECASE as project manager – what makes you stand out from your competitors?

MS: Project management for RECASE is an integral part of all engineering and even consulting tasks. We always look for the task allocation, even if it is only a small feature of a project, in terms of the whole project environment.

In the past we have developed technical solutions for WT manufacturers on the product level e.g. remote-control functionality to fulfil contemporary grid coded for WT that have already been in operation for some years.

We have applied PM knowledge and tools to develop the solution with the WT manufacturer, component suppliers and certification bodies. After the successful product deployment on the market, we have also provided the PM to roll out the product solution on hundreds of WT in the field.

To answer the question exactly, we think that our approach to supply technical solutions, and PM on this solution level and to provide field roll out engineering in parallel is

something quite unique on the market.

Finally PM methods and tools are essential to access complex failure management projects.

PES: Geographically speaking where are your main markets and do you plan to expand in to other regions?

MS: We operate worldwide. We follow our customers in their markets, projects and production facilities in Germany, Europe, the Americas and Asia.

As we have mentioned before, we are developing our business for energy systems and concepts on a regional level and with many customers in Northern Germany.

PES: How does the rest of 2017 look and what is your outlook for 2018 – 2019?

MS: The rest for 2017 is booked with customer projects for developing floating offshore WT, for deep water use and prototype commissioning of onshore multi-MW WT.

In 2018 we will be involved in the construction of offshore components and projects. Furthermore we will be part of the development of new on and offshore WT.

We will also announce some international cooperation with partners in Europe.

Finally we will step out with Energy systems and concepts from the regional to international markets.

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