



Training moves up a gear

The expectations for continued growth of the wind industry brings sustained challenges at many levels. One of these is finding the best way of expanding the wind workforce while maintaining safety and training levels, something that can be achieved with the right training and support.

Demand for wind turbine technicians is predicted to grow over the next five years, due to the very rapid growth in onshore and offshore wind farms, as well as the need for

older wind farms to be replaced or refurbished, as they come to the end of their working lives.

According to the Global Wind Organisation

(GWO), global onshore and offshore wind capacity is set to grow by 67% from 837GW in 2021 to 1,394GW in 2026, and a skilled workforce is needed to install and maintain



this fleet safely and efficiently.

The GWO / GWEC report also indicates that more than 500,000 wind technicians will be needed by 2026 to meet the demands of the construction and maintenance of wind farms, if the world is to deliver the wind energy capacity required to meet net zero goals. This represents a 33% rise in recruitment and thus training needs for wind turbine technicians.

As a new and evolving industry, offshore wind is at risk of a 'knowledge gap' that needs to be filled. Finding and undertaking the relevant training to upskill staff quickly and effectively will make the industry more operationally efficient, help answer technical challenges,

make maintenance simpler and prevent mistakes. Training is an undeniably important piece of the puzzle, particularly when it comes to eliminating the hazards of working at heights on the installation and maintenance of turbines, both on and offshore.

Wind-ON is helping to tackle the challenge of closing the skills gap in the wind sector with comprehensive training programmes covering some of the most important aspects of turbine installation and operational maintenance inspections. The service and installation company, based in Turkey, has recently expanded its services to include training modules covering Borescope Inspections and

Rigging and Lifting Operations.

Owner and instructor Nihat Tonguc has been working in major operations and borescope inspections since 2010, with companies including Vestas and General Electric. Since becoming the first inspector in Turkey, he is now keen to share his experience and give others the opportunity to benefit from his training.

'Our expert training modules, with real demonstrations in a classroom environment, enable participants to get hands-on experience in a unique way. All our training is TÜV SÜD certified and provides in-demand skills,' comments Nihat.

'Enabling companies to add new scope to their offering through Borescope Inspection for Wind Turbine Gearboxes, others already offering such a service can also benefit from the training, with employees being brought up to speed faster thanks to the rich content and practical exercises.



Plugging the skills gap with Wind-On

- Borescope Inspection Basic and Advance Level
- Rigging and Lifting Operations training
- 1:50 scale construction areas, with scaled crane and turbine
- Simulating real-life operations safely, with training delivered in Turkey or on-site
- Ongoing online support



'Overall, such training enables wind energy partners to strengthen the skills of their team and add value to their scopes at a very busy and exciting time of growth for the sector.'

Carried out at the company's headquarters in Balıkesir, Turkey, or on site throughout the Middle East, Africa and the EU, is suitable for those new to the industry as well as for companies looking to expand their operation to cover gearbox inspections. It can also benefit wind turbine operators who need to understand gearbox reports from their technical departments and O&M technicians performing Borescope inspections. Candidates undertaking the basic level training don't require any previous experience and once complete they are able to move on to the advanced level training to enhance their skills.

Simulating real-life operations in the

classroom environment with 1:50 scale construction areas, complete with a scaled crane and turbine, enabling candidates to get hands-on experience to aid their learning and understanding of the systems.

'Having a 1:50 scaled construction area with automated cranes gives participants the opportunity to simulate critical points safely. This is also a more sustainable option that attempting to find a suitable real construction area that can often be hard to travel to for participants. Our unique training gives those working in the wind sector the chance to use automated cranes themselves and to build a scaled turbine, all in the classroom environment,' Nihat explains.

'This is a rare opportunity for technicians to advance their skills, especially with the use of miniature parts used in the planetary stages,

such as helical gears and bearings.'

Borescope training is offered at basic and advanced level, enabling candidates to take a big step in becoming an inspector in just two weeks. The training gives candidates the knowledge and skills required to perform routine and non-routine borescope inspections. This includes reading and interpreting mechanical drawings; understanding the structure of wind turbine gearboxes in the planning stages, and how to accurately take images of parts using an endoscopy camera.

'During the training we show gear and bearing parts from the turbine gearbox in simulated parts, show a planetary stage gearbox and encourage participants to make visual inspections,' Nihat clarifies.

The Rigging and Lifting training is equally as detailed. The module covers how to choose the correct lifting equipment; proper and safe lifting methods; specifying center of gravity loads and the correct steps for each lift.

Candidates from both modules also benefit from ongoing online support from Nihat and his team once they are back on site.

'Training will be a true enabler in the scaling up of the offshore wind sector, with businesses already beginning to focus on upskilling existing talent and creating career progression pathways for employees to develop within the industry,' Nihat concludes. 'By drawing on our own expertise in providing innovative technologies to help drive the transition to more sustainable, reliable & affordable energy systems, our training helps bridge the skills gap.'

