



EWPL Ocean offers an accurate inspection of offshore turbine blades via drones during off season. Photo: helvetis.com

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New concept improves wind turbine inspections

Cheaper, faster and more precise. The joint venture between ESVAGT and Wind Power LAB reduces both weather risk and expenses related to drone inspections of offshore wind turbines.

Inspecting offshore wind turbines is now cheaper, faster and far more precise than the current industry standards.

ESVAGT and Wind Power LAB have developed offshore WTG Blade

Assessment in their joint venture EWPL Ocean (ewplocean.com); a new service concept for inspecting wind turbines that will both reduce weather risk, increase the analysis process and improve inspections.

‘Digitisation and streamlining are central elements in offshore wind. Thanks to WTG Blade Assessment, we are taking a considerable step in industrialising inspections of offshore wind turbines’, says Anders Røpke, CEO at EWPL Ocean.

Better on all parameters

EWPL Ocean combines ESVAGT’s competences in operating vessels and drones with Wind Power LAB’s knowledge about offshore turbines and AI (Artificial Intelligence). This results in a long line of advantages, says Søren Karas, CCO at ESVAGT and Chairman of the Board at EWPL Ocean:

‘Nowadays, inspecting turbine blades is costly, laborious, slow and imprecise. We are ameliorating all aspects’, he declares.

Turbine blade inspections are currently done via camera from the turbine tower foundation, via drone from a CTV, or by a photographer from a helicopter. All three solutions require decent weather and costly specialists:

‘It is often decided to inspect during the summer, when the weather risk is at its lowest. The attached disadvantage is that once the recordings have been analysed, summer is over – and it is then unavoidable to have to wait until the following summer before being able to repair the damages, and by that time, they might well be aggravated’, says Søren Karas.

One stop service supplier

EWPL Ocean turns inspections upside down already from the previous winter season – a time of year usually characterized by very few inspections due to weather conditions. This is however no obstacle.

‘Through our experience and other activities in the North Sea, we can create synergies with our oil & gas business to deliver both vessels and drones, which absorbs the weather risk and considerably heightens the quality of the inspection’, says Søren Karas.

From ESVAGT's vessels, trained drone pilots photograph offshore WTG blades during off season well ahead of summer, where reparations will be possible. After just 24 hours, the customer receives the first assessment of the necessary service, and after a week, Wind Power LAB's specialists will have verified and thoroughly analysed the needed repairs. Substantially faster and more accurately than analyses offered today. The analyses can be performed at 3 different levels, enabling each customer to choose the wanted level of details in the reports.

'Through trial cases, we have already observed that we identify the scope of the blade damages more precisely than previously possible', describes Anders Røpke:

'We offer a much more flexible and accurate inspection with a subsequent analysis; offered at the optimal time – at a much more affordable price', he says.

The concept has already attracted attention among farm owners, turbine manufacturers, insurance companies and investors.

'Accurate inspections are a prerequisite for taking quick action, thereby delivering an optimal service which can extend the farm's lifetime. It is a unique concept that helps wind farm owners and operators in line with an increasing industrialisation', says Søren Karas.

About ESVAGT

ESVAGT is a dedicated provider of safety and support at sea and a market leader within offshore wind solutions.

We support the offshore Oil & Gas industries with a wide range of specialized services: Standby, Emergency Response and Rescue Vessels (ERRV), Oil spill response, Firefighting, Tanker assists, Rig moves, Supply services and Interfield transfer of cargo and personnel.

We service offshore wind farms and have a fleet of dedicated Service Operation Vessels (SOV), which ESVAGT pioneered in 2010. The SOVs provide accommodation for technicians, spare time facilities, offices and conference room, storage for small turbine parts, workshops, etc. The SOV offers

flexible personnel and equipment transfer capabilities by either Walk-to-Work gangway system or Safe Transfer Boats.

ESVAGT was founded in 1981 and has a fleet of more than 40 vessels and approximately 900 employees on- and offshore.

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