Although ScanTech Offshore has a long history of working with the oil and gas industry, it is fast expanding into the renewables market, winning a series of major contracts to support wind farm construction through use of its specialised fleet of air compressors that create ‘bubble curtains’.

**KEEPING THE NOISE DOWN AT SEA**

Having successfully worked through the summer on two major offshore wind farm installations in Taiwan, the team has been awarded a further significant contract to support the installation of Taiwan’s largest offshore wind farm. This project will take the team right through 2021 and into 2022 and sets ScanTech Offshore up as a trusted ‘one stop shop’ for noise mitigation during wind farm installations.

Bubble curtains are used underwater to protect marine life from loud noises during subsea operations. Ordinary construction noises travel much more easily underwater, and sound levels can be five times higher than in open air. This can be enough to harm and even kill sea life. However, air bubbles resonate in response to sound, absorbing sound energy and when formed into a curtain they reflect the sound, effectively keeping it within the curtained area.
Partnered with HydroTechnik Lübeck
For the last two years ScanTech Offshore has partnered with HydroTechnik Lübeck (a leading German company which has been pioneering specialised bubble curtain technology for offshore farm construction) to support wind farm construction projects. Together, its stackable air compressors and SeaSentry filtration system supply the huge volumes of clean (‘class zero’) compressed air required.

Significant advantage
“The fact that our air compressors are stackable gives us a significant advantage, because we can fit the number of compressors required on to a relatively small vessel without risk of heat build-up,’ says project manager Barry Craig. ‘Rates go up as vessels get bigger, so stackability can offer a significant saving on the overall project costs.”
A typical bubble curtain project might require 20 - 26 compressors, grouped so that five compressors feed air through one SeaSentry filtration system which cleans and conditions the compressed air to ensure only oil-free air of medical cleanliness (class zero) goes into the sea.

Dedicated support for the Renewables Industry
“We have had over 300 air compressors dedicated to support the oil and gas industry, but now, during peak offshore wind farm construction times, around 100 have been redirected to the renewables industry,’ Barry says. ‘SeaSentry was designed specially to accommodate that switch so the compressed air could be guaranteed pure for underwater use.”

Another key project
In early 2021, the team will start work on another key project in Taiwan supporting the installation of jackets which form the foundations for the wind turbines. This contract comes on the back of work supporting the noise mitigation solutions provided for the installation of more than 80 monopiles in Taiwan and builds on the success and track record that ScanTech have earned since 2018 in Europe and Taiwan.

“We are delighted to have secured this new contract,’ says Barry. ‘It shows a vote of confidence in the work we have been doing in the region – work which we have successfully completed despite the difficulties and limitations of a global pandemic.”

Protection to marine life
The team will provide a double layer of sound protection to marine life in the area, equipping a large ‘noise mitigation vessel’ with sufficient air compressors to create a double big bubble curtain around the monopile. In addition, electric air compressors will be located onboard the heavy lift / pile driving installation to provide air for a further / smaller near pile bubble curtain to give additional noise attenuation during the installation of the monopile foundations.