

Helping Poland advance renewable energy while protecting marine life

Speeding up offshore wind farm approvals by applying cutting-edge noise and animal modelling to improve the accuracy of EIAs



Reduced uncertainty of project impacts – thanks to high quality baseline studies and EIAs



Selection of the best value for money approach for noise mitigation



Project approval for the first ever – and subsequent – offshore wind farm installation in Polish waters

Challenge

Getting the green light for Poland's offshore wind projects

Poland has ambitious plans to advance the building of offshore wind farms. However, developers must overcome unique environmental challenges before getting the nod of approval from authorities to proceed with their projects. Polish waters are home to the endangered and strictly protected Baltic harbour porpoise. Construction noise can harm them. Seabirds can be displaced from the wind farm area. Birds on migration through the Baltic can collide with the rotating turbines blades. These impacts are extremely difficult to predict, resulting in much uncertainty about the environmental footprint of offshore wind farm. This can lead to slow regulatory approval resulting in severe project delays.

Solution

Since 2012, DHI has used innovative approaches to help many Polish developers increase the accuracy of their environmental investigations. These are the highlights:

- **Numerical underwater noise modelling** using DHI's Underwater Acoustic Simulator (UAS) proved that by applying noise mitigation measures such as bubble curtains, impacts on porpoises could be kept at acceptable levels
- **Dynamic habitat modelling** enabled extrapolations of the baseline investigations concerning the distribution of seabirds and increased the reliability of the impact assessment
- **Collision risk modelling** provided the accurate number of seabirds and migrating birds at risk of collision with the turbines in operation. This information fed into the final design of the individual turbines to minimise collisions.

'MEWO has been successfully cooperating with DHI for over eight years in the implementation of offshore wind farm projects in Poland. DHI's reliable analyses and reports on marine mammals, seabirds, migratory birds and underwater noise modelling has supported us with the best solutions. Their professional team considers the latest methods used around the world, provides guaranteed performance and communicates with us seamlessly every step of the way. We look forward to our continued cooperation.'

Michał Sandar, Project Manager
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