

Marine Industries

Maritime risk & navigational safety

NASH Maritime bring unmatched navigation and shipping expertise to APEM Group: expertise that empowers clients to manage increasingly complex navigation risks and impacts in the offshore energy sector.

Known for providing practical solutions to complex and challenging maritime projects, our specialist advice helps developers make timely, accurate and informed decisions worldwide.

All advice is data-driven, derived from in-house analytical tools and robust modelling techniques, whilst our qualitative insights draw from our technical knowledge, maritime experience and established relationships with key stakeholders.

Early consideration of shipping and navigation constraints is critical to optimising developable areas and reducing consent risk. Talk to us today.

Bringing the brightest minds and scientific data to support you from consent to construction

Feasibility and site selection

- Site screening
- Constraint analysis
- Lease support

EIA and Consent

- Navigation risk assessment
- Vessel traffic surveys/- data collection
- Hazard workshops
- Commercial shipping assessment
- Risk modelling
- Stakeholder consultation

Design development

- Design support
- Port access and impact studies
- Site boundary and layout optimisation
- Cable Burial Risk Assessment (CBRA)

Procurement

- Aids to Navigation
- Navigation safety management plan
- Vessel traffic monitoring
- Emergency Response Cooperation Plan

Construction

- Marine operations modelling
- Marine logistics planning
- Safety zones

O&M

- Post-consent monitoring
- Marine co-existence plans
- Maintenance planning

Decommissioning

- Navigation risk assessment
- Marine operations and logistics support
- HAZID and HAZOP



Case Studies:

Irish sea developments: Morgan & Mona

BP and EnBW (Energie Baden-Wuerttemberg AG) are in the process of developing two offshore wind sites in the Irish Sea; Morgan and Mona. The wind farms are located approximately 20-30 km from the coast, with a combined area of approximately 800 km².

Challenge

Shipping and navigation issues are key considerations for both windfarm design development, optimisation and consent.

The Irish Sea is an area of significant shipping activity with key routes and trade between busy ports in the UK, Ireland and globally.

Solution

To ensure safety and impact were considered throughout the project lifecycle, NASH Maritime initially advised the developer during The Crown Estate's Offshore Wind Round 4 leasing process.

Recognising that considering maritime issues from the start can derisk a project, after achieving preferred bidder status, the lead consultant contracted NASH Maritime.

Working iteratively with the project development team, NASH Maritime supported the early stage engineering design, including site boundary, layout refinement and optimisation.

To support the environmental impact assessment (EIA), we undertook marine vessel traffic surveys, real time bridge navigation simulation, navigation risk assessments and other supporting analysis and modelling. This included HAZID workshops, developing navigation risk models supported by geospatial toolkits for constraints analysis as well as stakeholder engagement.

NASH Maritime continues to work with the project team as the design develops and assessments are undertaken.

Buchan baseline understanding

Located 75km northeast off Fraserburgh with a capacity of around 1GW, it is expected that the Buchan Offshore Wind project, a joint venture between BayWa r.e., BW Ideol and Elicio, will put Scotland at the forefront of floating wind and bring significant benefits for Scotland's supply chain.

Specialist navigation advice

NASH Maritime has been supporting the Buchan Offshore Wind project since the early stages of Scotwind leasing.

The technical team prepared the navigation risk assessment for the EIA and provided specialist input to support the design development of the project.

Vessel traffic surveys key to understanding

To ensure the specialist risk analysts at NASH Maritime had an accurate understanding of how a proposed development area and its environs are currently used, the company undertakes vessel traffic surveys to validate other datasets such as longer term AIS.

The vessel traffic surveys collect radar track data and vessel transponder data (AIS), whilst observers log recreational and fishing vessel activity.

To safeguard data fidelity and quality, the company then uses its own, near real-time, upload and processing system. The risk specialists subsequently analyse the post-processed data to create a quantitative understanding of the development area which is subsequently used as a baseline to inform navigation risk assessment and support stakeholder consultation.

