

A person wearing a yellow hard hat and a high-visibility vest stands on a rocky beach at sunset. They are looking out at a large offshore wind farm with many turbines in the distance. The sun is low on the horizon, creating a golden glow and reflecting on the water. The scene is peaceful and industrial.

Connection
to the Grid.
Powered by
science.



APEM Group

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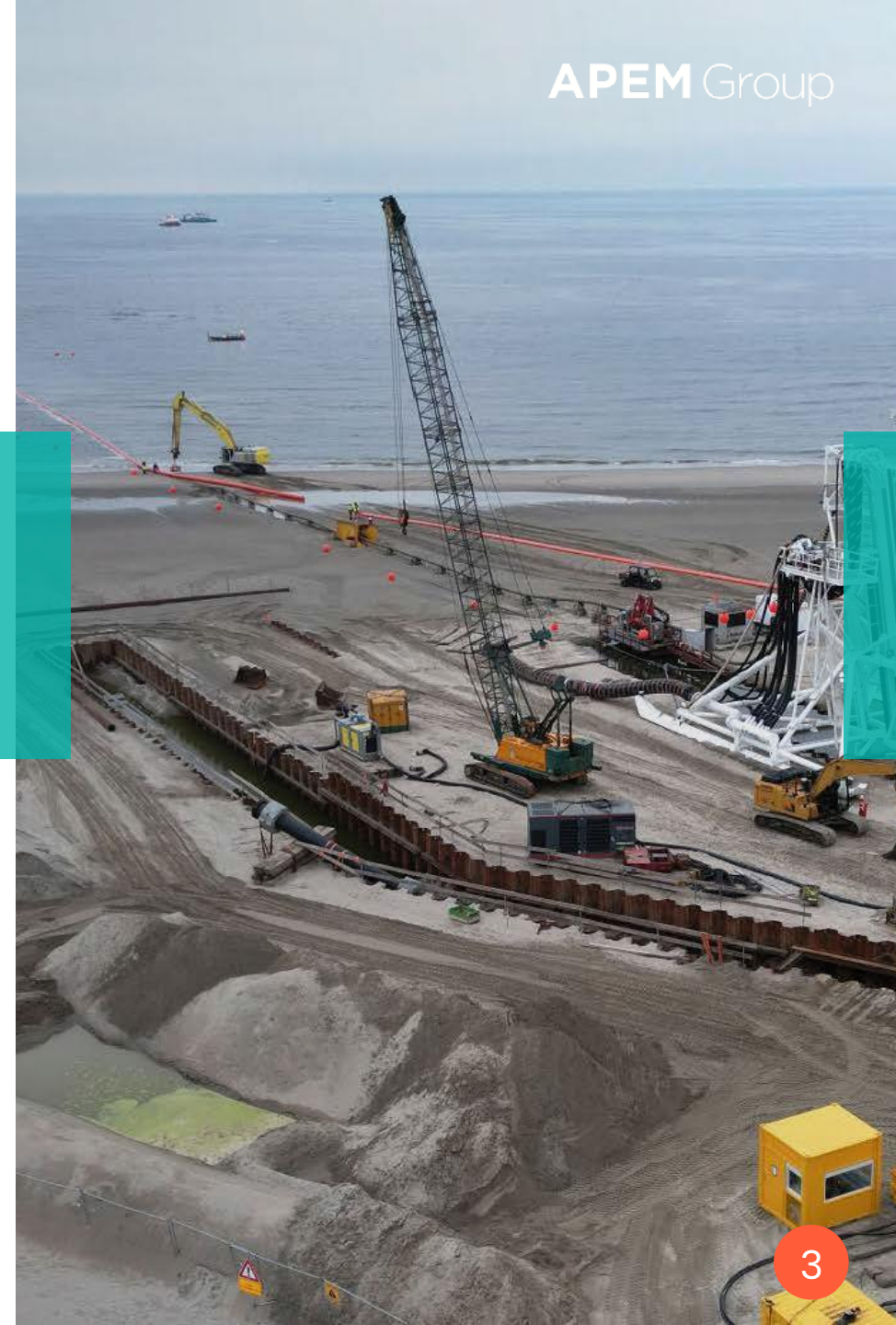
Sustainability
& environmental
impact

About Us

APEM Group is a trusted partner in enabling the transition to net zero through the seamless integration of offshore wind into the electricity grid.

We provide end-to-end environmental consultancy, technical expertise, and lifecycle support for offshore and onshore transmission infrastructure across the UK and Ireland.

From early route selection and stakeholder engagement to Environmental Impact Assessment (EIA) and post-consent support, our multidisciplinary teams deliver commercially viable, buildable, and future-proofed solutions. With a focus on quality, innovation, and collaboration, we help clients navigate complex planning and legislative landscapes to deliver critical energy infrastructure with confidence.

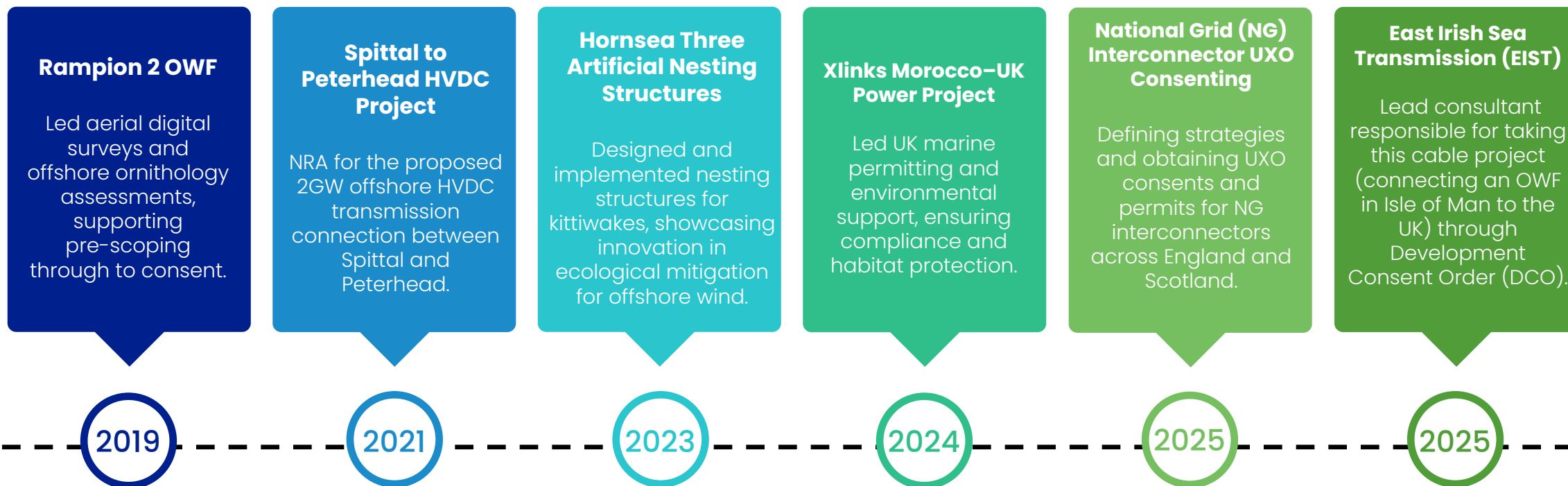


APEM Group



Our role in Grid and Transmission

We have played a pivotal role in enabling offshore wind and transmission infrastructure across the UK and Ireland. Our work spans strategic planning, environmental assessment, stakeholder engagement, and technical delivery for nationally significant infrastructure projects.



65%

of UK Round 4 OWF sites supported with baseline data collection

60GW

of offshore wind approvals supported globally

75+

offshore wind projects supported from strategy to consent

2,600+

hours of flight time across 677 aerial survey missions

Quality Focused ISO, ISEP, NMBAQC

Expertise, Innovation, and Collaboration



Grid & Transmission Expertise

Trusted partner in offshore wind and interconnector projects across the UK and Ireland.



Data-Led Delivery

Cutting-edge aerial, LiDAR, and marine survey data underpin robust environmental assessments.



Risk Management

Strategic planning and consenting expertise to de-risk complex infrastructure delivery.



Collaborative Approach

Working hand-in-hand with developers, regulators, landowners and communities to secure consents.



Solving Challenges

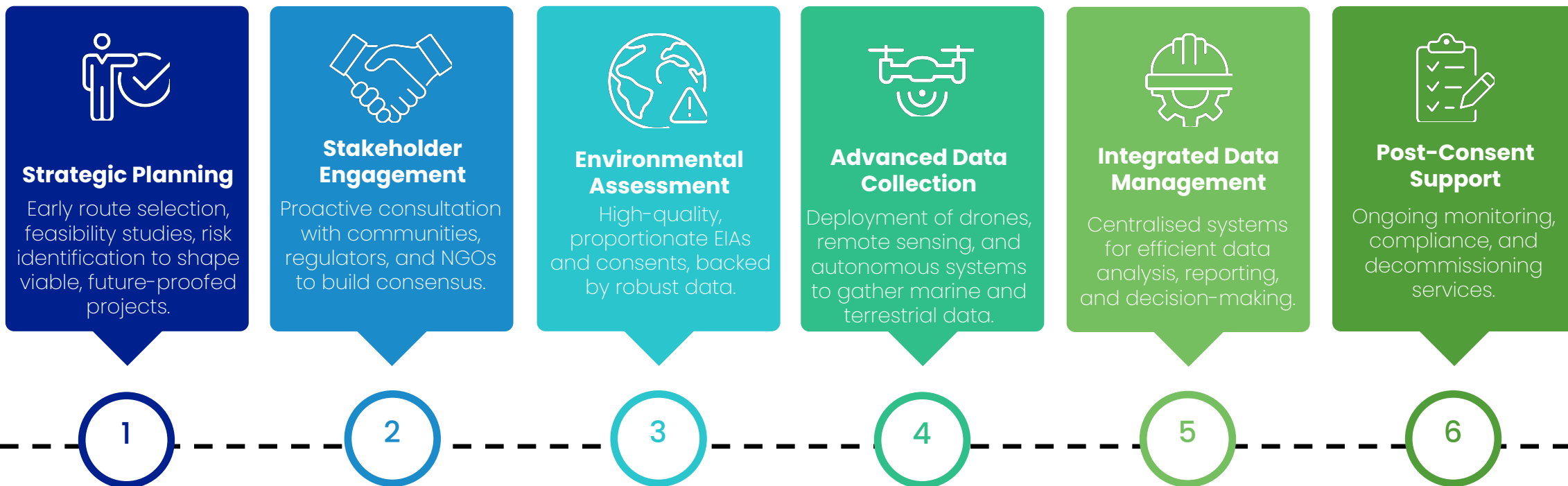
Enabling net zero through sustainable, buildable, and future-proofed grid connections.

03

Project Support



Grid & Transmission Support



01

Strategic Planning

- Strategic route planning for offshore and onshore grid connections
- GIS-based constraint mapping and opportunity analysis
- Early-stage risk identification and mitigation
- Integration of ecological and hydrodynamic data
- Informed site selection to support commercially viable projects
- Cable Burial Risk Assessment (CBRA)



02

Stakeholder Engagement

- Proactive engagement with regulators, communities, and NGOs
- Building consensus to reduce delays and legal risks
- Transparent communication throughout the project lifecycle
- Supporting statutory consultation and public inquiries
- Trusted relationships with stakeholders (including MMO, MD-LOT, NE, Nature Scot, NRW, HE and HS)

03

Environmental Assessment

- High-quality, proportionate EIAs for offshore and onshore infrastructure
- Robust data-led assessments to support consent applications
- Mitigation strategies to reduce environmental impact
- Expertise in terrestrial and marine ecology, ornithology, and biodiversity/marine net gain
- Proven success in securing consents across the UK and Ireland

04

Advanced Data Collection

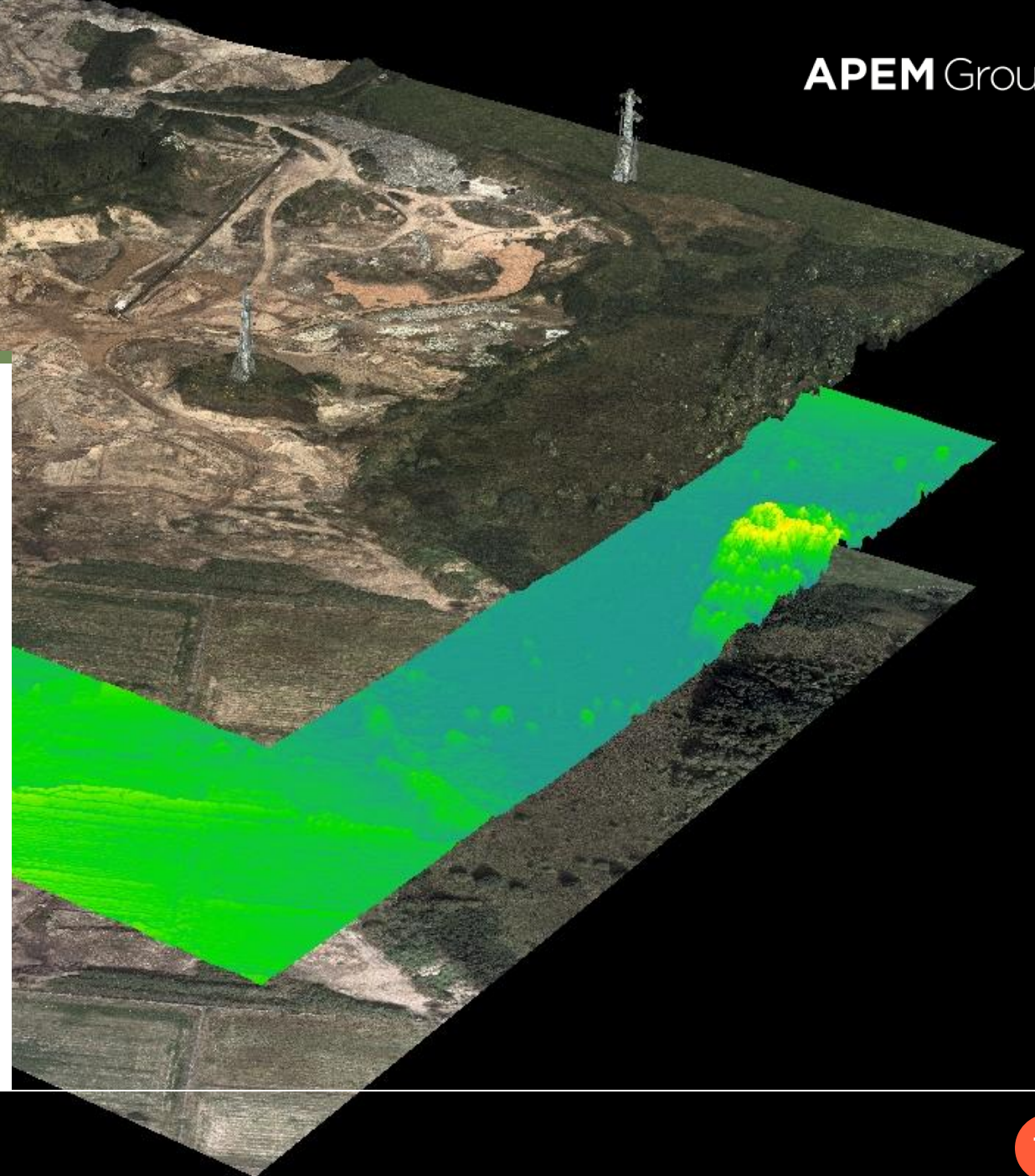
- Digital aerial surveys, LiDAR, and remote sensing
- Autonomous underwater vehicles and uncrewed surface vessels
- High-resolution imagery and real-time data capture



05

Integrated Data Management

- Centralised platforms for data collection, storage, and analysis
- Streamlined workflows for efficient project delivery
- Secure, accessible systems for clients and stakeholders
- OSPREY software with 193 users and 118+ surveys processed
- Supporting evidence-based decision-making



06

Post-Consent Support

- Ongoing environmental monitoring and compliance reporting
- Marine mammal observer (MMO) and digital aerial survey (DAS) programmes
- Adaptive management strategies for evolving project needs
- Decommissioning planning and support



04

Projects & Innovation



Project Spotlight:

Xlinks Morocco–UK Power Project

Client: Xlinks

- Led UK marine permitting and environmental support for a 3,800 km subsea interconnector
- Delivered comprehensive marine and terrestrial ecological surveys
- Conducted Environmental Impact Assessments (EIAs) for offshore and onshore cable routes
- Utilised advanced data collection technologies, including drones and autonomous systems
- Implemented integrated data management for streamlined reporting and compliance
- Engaged proactively with UK regulators and stakeholders to secure timely approvals
- **Outcome:** Supporting one of the world’s most ambitious renewable energy projects, transmitting solar and wind power from Morocco to the UK.

Project Spotlight:

UXO Consenting for Interconnectors

Client: National Grid & Scottish and Southern Electricity Networks

- GoBe is developing the consenting strategy for unexploded ordnance (UXO) investigation and removal for two interconnectors in England and Scotland.
- Work is focused on assessing the potential impacts of UXO detonation on marine mammals and designated sites.
- The team will lead the environmental assessment to support marine license applications.
- A Marine Mammal Mitigation Plan will be prepared, alongside stakeholder engagement with relevant regulators.
- A Report to Inform an Appropriate Assessment (RIAA) will be produced for the Southern North Sea SAC for each interconnector.
- **Outcome:** This work will establish a robust UXO consenting strategy for National Grid, ensuring safe and environmentally responsible cable installation.

Project Spotlight:

Spittal to Peterhead HVDC Transmission Connection

Client: SSEN Transmission

- Appointed to undertake the Navigation Risk Assessment (NRA) for the proposed offshore HVDC transmission connection between Spittal and Peterhead
- Part of the 2GW transmission reinforcement under the Pathway to 2030 Holistic Network Design (HND)
- Delivered through the Ofgem Accelerated Strategic Transmission Investments (ASTI) framework
- Working as part of the marine team led by MarineSpace Ltd, an ERM Group company
- Assessing and proposing controls for shipping and navigation risks associated with initial subsea cable corridors
- **Outcome:** NASH Maritime's expertise supports the safe and strategic development of critical offshore transmission infrastructure, enabling the UK's transition to a net-zero energy system.

Innovation Driving Grid and Transmission Sustainability

APEM Group applies cutting-edge science and technology to enable efficient, future-proofed grid connections for offshore wind.



LiDAR & Aerial Surveys

High-resolution mapping supports early route selection and landfall feasibility.



Environmental Impact Modelling

Robust, data-led assessments ensure proportionality and minimise ecological disruption.



Navigation Risk Modelling

Advanced tools assess vessel traffic and cable installation risks in complex marine environments.



AI-Powered Species Detection

Machine learning enhances biodiversity monitoring and supports consent applications.



Regulatory Intelligence

Expert navigation of UK and Irish planning regimes ensures timely, compliant delivery.



Autonomous Monitoring

Innovative platforms collect real-time data to support post-consent and operational phases.

06

**Sustainability
& Environmental
Impact**



Commitment to Sustainability



Smart Technology

Leveraging LiDAR, drones, and autonomous systems to collect high-quality data with minimal environmental impact.



Ecological Safeguards

Designing proportionate mitigation strategies and habitat compensation plans to protect sensitive terrestrial and marine ecosystems.



Integrated Environmental Services

Providing end-to-end support, from route selection and EIA to post-consent monitoring, for offshore and onshore transmission infrastructure.



Collaborative Engagement

Working closely with regulators, developers, and communities to secure consents and deliver sustainable outcomes.



Global Reach, Local Expertise

Delivering projects across the UK and Ireland with deep regional knowledge and international best practice.



Thank you

Please get in touch if you have any questions.

[apemgroup.com](https://www.apemgroup.com)

APEM Group