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cleaner energy future

Nature Positive Plan

# MarramWind Offshore Wind Farm

December 2025

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# 1. Introduction

## 1.1 Purpose

- 1.1.1.1 The MarramWind Nature Positive Plan (NPP) outlines the strategic framework through which biodiversity enhancement will be identified, developed, implemented, monitored, and reported across both the onshore and offshore components of the MarramWind Offshore Wind Farm.
- 1.1.1.2 The NPP is a live document, designed to evolve in response to ongoing research, feasibility assessments, stakeholder engagement, and regulatory developments. It supports the Environmental Impact Assessment (EIA) process by providing a structured approach to delivering measurable nature positive outcomes throughout the project lifecycle.
- 1.1.1.3 This Plan is aligned with the MarramWind's overarching Nature Positive Strategy which was submitted for consultation with relevant stakeholders in July 2023. It has also been developed in accordance with applicable Local Development Plan (LDP) policies and guidance, and with National Planning Framework 4 (NPF4) Policy 3<sup>1</sup>, which requires developments to conserve, restore, and enhance biodiversity, including nature networks, in a demonstrably better state than without intervention.
- 1.1.1.4 The NPP reflects emerging best practice in biodiversity enhancement planning, including adaptive management and nature-based solutions, and will be refined post-consent in consultation with relevant stakeholders and communities.

## 1.2 Project overview

- 1.2.1.1 MarramWind Offshore Wind Farm (hereafter referred to as 'the Project') is wholly owned by ScottishPower Renewables UK Limited (SPR). SPR is part of the ScottishPower group of companies, operating in the UK under the Iberdrola Group, and is a leading UK renewables developer with over 40 operational windfarms generating 3GW of green energy.
- 1.2.1.2 The Project is a proposed floating wind farm located in the North Sea, with a grid connection capacity of up to 3 gigawatts (GW). The location of the Project is determined by the Option Area Agreement (OAA), which is the spatial boundary of the Northeast 7 (NE7) Plan Option within which the electricity generating infrastructure will be located. The NE7 Plan Option is located north-east of Rattray Head on the Aberdeenshire coast in north-east Scotland, approximately 75 kilometres (km) at its nearest point to shore and 110km at its furthest point. An Option to Lease Agreement for the Project within the NE7 Plan Option was signed in April 2022.
- 1.2.1.3 For more information on the Project, please see **Volume 1, Chapter 4: Project Description**.

## 1.3 Relationship to EIA

- 1.2.1.1 The NPP complements the EIA by considering potential enhancement opportunities. The NPP is informed by the EIA process, ensuring that nature positive outcomes are considered alongside potential environmental impacts. The measures presented herein cover both the onshore and offshore components of the Project and interacts with a range of ecological receptors, including benthic habitats, fish populations, marine mammals, birds, and terrestrial ecology. Through its phased approach, the NPP ensures that biodiversity

<sup>1</sup> National Planning Framework 4 (Scottish Government, 2023)

considerations are integrated into project design and decision-making, in alignment with the Nature Positive Strategy and which promotes the restoration and enhancement of biodiversity as a core objective of national development.

1.2.1.2 The NPP should therefore be read in conjunction with the following Chapters within the Project's EIA Report:

- **Chapter 4: Project Description**
- **Chapter 6: Marine Geology, Oceanography and Physical Processes**
- **Chapter 7: Marine Water and Sediment Quality**
- **Chapter 10: Benthic, Epibenthic and Intertidal Ecology**
- **Chapter 11: Marine Mammals**
- **Chapter 12: Offshore and Intertidal Ornithology**
- **Chapter 13: Fish Ecology**
- **Chapter 23: Terrestrial Ecology**

## 2. Policy Context

### 2.1 Introduction

2.1.1.1 The Project is committed to delivering a nature positive outcome, in line with national and local policy expectations. This section outlines the legislative and policy framework underpinning the requirement for biodiversity enhancement, and clarifies the qualitative, EIA-based approach adopted for assessment and delivery of this NPP.

### 2.2 Alignment with National and Local Biodiversity Policy

2.2.1.1 The NPP is designed to demonstrate clear alignment with both national and local biodiversity policy which are detailed below.

#### 2.2.1 National Planning Framework 4 (NPF4)

2.2.1.2 Adopted in February 2023, NPF4 is part of the statutory Scottish Development Plan and sets out national planning policies applicable to all development proposals. Specific to this NPP is Policy 3 which sets out that biodiversity is central to the nature positive agenda and includes the following key criteria:

- a) Development proposals must contribute to the enhancement of biodiversity, including restoring degraded habitats and strengthening nature networks.
- b) For national or major developments, or those requiring an Environmental Impact Assessment (EIA), proposals must demonstrate that biodiversity will be conserved, restored, and enhanced, leaving the environment in a demonstrably better state than without intervention.

2.2.1.3 Development proposals must therefore:

- Be based on an understanding of the site's ecological context, including irreplaceable habitats.
- Integrate nature-based solutions wherever feasible.
- Assess and mitigate potential negative effects before identifying enhancements.
- Deliver significant biodiversity enhancements, including nature networks, with long-term management and monitoring.
- Consider local community benefits arising from biodiversity improvements.

2.2.1.4 NPF4 is supported by Draft Biodiversity Planning Guidance<sup>2</sup> which sets out the Scottish Ministers' expectations for implementing NPF4 policies to support the cross-cutting NPF4 outcome 'improving biodiversity'. The draft guidance, which at the time of writing is in effect but has not yet been finalised, is framed around a suite of core principles which developments and related proposals for biodiversity enhancement are expected to address:

- Apply the mitigation hierarchy.
- Consider biodiversity from the outset.

<sup>2</sup> Biodiversity: draft planning guidance (Scottish Government, 2023)

- Provide synergies and connectivity for nature.
- Integrate nature to deliver multiple benefits.
- Prioritise on-site enhancement before off-site delivery.
- Take a place-based and inclusive approach.
- Ensure long term enhancement is secured.
- Additionality.

2.2.1.5. The Project's NPP responds directly to these criteria and is structured to support the project's Section 36 consent, marine licence applications, and onshore planning submission.

## 2.2.2 Aberdeenshire Council Planning Advice PA2023-10: Securing Positive Effects for Biodiversity

2.2.2.1. The Project's onshore infrastructure lies within the jurisdiction of Aberdeenshire Council which has produced the above Planning Advice which:

- Reinforces the requirement to comply with NPF4 Policy 3.
- Recommends a 20-year Habitat Management Plan for all enhanced or restored habitats.
- Supports the use of biodiversity metrics (e.g. Biodiversity Metric 4.0) but acknowledges limitations in the Scottish context and permits alternative approaches with sufficient justification.

## 2.2.3 Local Biodiversity Action Plans (LBAPs)

2.2.3.1. The North-East Scotland LBAP identifies priority habitats and species relevant to the Project's onshore area, including:

- Oak-dominated woodlands.
- Species-rich neutral grasslands.
- Wetland and small open water features.

2.2.3.2. These priorities have informed the identification of enhancement opportunities within the NPP, particularly in the substation and cable corridor zones.

## 2.3 Legislative Framework

### 2.3.1 Electricity Act 1989 (Section 36)

2.3.1.1. Consent is required for the offshore generating station and associated infrastructure. Biodiversity enhancement measures may be secured through this consent.

## 2.3.2 Marine (Scotland) Act 2010 & Marine and Coastal Access Act 2009

2.3.2.1 Marine licences are required for seabed disturbance and infrastructure installation. These must be determined in accordance with Scotland's National Marine Plan and biodiversity policies.

## 2.3.3 Town and Country Planning (Scotland) Act 1997

2.3.3.1 Governs planning permission for onshore infrastructure above Mean Low Water Springs (MLWS). The Project's onshore application will be assessed against NPF4 and Aberdeenshire Council's local development policies.

## 2.3.4 National Marine Plan

2.3.4.1 Policy GEN 9 – Natural Heritage (NMP1) requires developments to:

- Comply with legal obligations for protected areas and species.
- Avoid significant impacts on Priority Marine Features (PMFs).
- Protect and, where appropriate, enhance the health of the marine environment.

2.3.4.1 The emerging National Marine Plan 2 (NMP2) is expected to align closely with NPF4 and introduce more detailed biodiversity enhancement requirements.

## 2.4 Nature Positive Strategy and Assessment Framework

2.3.4.2 The Project's Nature Positive Strategy (NPS) provides the overarching framework for the development and implementation of the NPP. Rather than relying on Biodiversity Net Gain (BNG) metrics, which are not currently mandated or fully adapted for use in Scotland, the NPP adopts a qualitative, EIA-led approach. This methodology is considered more appropriate given the absence of a statutory biodiversity metric, the limitations of England-based tools such as DEFRA's Biodiversity Metric 4.0 in reflecting Scottish ecological conditions, and the early design stage of the project, which precludes meaningful quantitative assessment.

## 3. Approach to Nature Enhancement

### 3.1 Outline

3.1.1.1 The Nature Positive Strategy (NPS) sets out a structured framework for delivering biodiversity enhancement across both onshore and offshore elements of the project. It responds directly to the requirements of NPF4, particularly Policy 3 on biodiversity, which mandates that major developments must conserve, restore, and enhance biodiversity to leave it in a demonstrably better state than without intervention. The NPS was shared with key stakeholders in 2023 for review and comments. More information can be found in Section 4 regarding engagement.

3.1.1.2 The NPS outlines a four-stage process for developing the NPP:

- Biodiversity and Habitat Baseline Assessment – Identifying ecological receptors and habitat value through desk-based studies, designated site reviews, and site-specific surveys.
- Market Review – Evaluating available and emerging biodiversity enhancement options, including nature-inclusive design, species-specific measures, and offsetting opportunities.
- Project Review – Assessing feasibility, risks, and opportunities of enhancement options to refine the design envelope.
- Measurement, Delivery and Monitoring – Using CIEEM EclA guidelines<sup>3</sup> to evaluate ecological significance and adopting adaptive management to ensure long-term success.

3.1.1.3 The NPP will be submitted alongside the Project's consenting applications and will be secured through the planning process. Monitoring and reporting will be tailored to the selected enhancement measures and will inform adaptive management responses. Furthermore, this NPP is a live document and so as the project progresses and more data becomes available, enhancement options will be refined. The plan will evolve through stakeholder engagement, monitoring feedback, and ongoing review to ensure it remains responsive, effective, and aligned with best practice.

### 3.2 Guiding principles

3.2.1.1 The Project's biodiversity enhancement approach is rooted in the principle of delivering significant, measurable, and lasting ecological benefits. Enhancements will be designed to complement existing habitats, support species recovery, and contribute to wider nature networks. This aligns with NPF4's emphasis on nature-based solutions and strengthening ecological connectivity, as well as the core principles of the Draft Biodiversity Planning Guidance referenced in Section 2.2.1.

3.2.1.2 Enhancement measures will be guided by the following principles:

- Relevance: Enhancement measures will be selected based on a thorough understanding of the ecological context of the site and surrounding area, including species presence, habitat condition, and proximity to designated areas. This ensures interventions are ecologically meaningful and tailored to local needs. For

<sup>3</sup> Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (CIEEM, 2024)

example, measures may focus on supporting priority species, restoring degraded habitats, or enhancing underrepresented ecosystem types. This approach also ensures biodiversity is considered from the outset and takes a place-based perspective.

- Deliverability: All proposed enhancement actions will be assessed for technical, financial, and logistical feasibility, including engineering constraints, land availability, regulatory requirements, and alignment with the project timeline. Deliverability ensures biodiversity gains are achievable within the scope of the development and supports integration of nature-based solutions that deliver multiple benefits.
- Proportionality: Enhancement efforts will be proportionate to the predicted ecological impacts of the project. More significant impacts will be matched with more substantial or wide-reaching measures. Proportionality ensures efficient resource allocation and that biodiversity gains are commensurate with the project's footprint and potential effects.
- Connectivity: Measures will aim to improve ecological connectivity by linking fragmented habitats, creating corridors for species movement, and contributing to regional nature networks. This supports ecosystem resilience, facilitates species dispersal, and aligns with NPF4's emphasis on strengthening nature networks.
- On-site and Off-site Delivery: Enhancement measures will consider both on-site and off-site opportunities to enable the delivery of a nature-positive outcome. While on-site actions will be prioritised where feasible, off-site measures may be pursued where they provide greater ecological benefits or strengthen wider nature networks, ensuring the overall approach maximises biodiversity gains.
- Place-based and Inclusive Approach: Enhancement planning will consider local ecological character and involve relevant stakeholders where appropriate, ensuring measures reflect community priorities and regional biodiversity objectives.
- Long-term Viability: To secure lasting biodiversity benefits, measures will be designed with sustainability in mind. This includes establishing management regimes, securing funding for maintenance, and implementing monitoring protocols. Adaptive management will allow adjustments based on monitoring results, ensuring measures remain effective over time and respond to changing conditions.
- Additionality: Enhancement actions will deliver biodiversity gains beyond those required for mitigation under the mitigation hierarchy. This ensures that measures provide genuine, additional benefits rather than duplicating existing obligations.

### 3.3 Integration with mitigation hierarchy

3.3.1.1 The NPP complements and builds upon the mitigation hierarchy, which is addressed in detail through the EIA process. The mitigation hierarchy is a well-established framework used to manage and reduce the ecological impacts of development. It consists of four sequential steps: avoid, minimise, restore, and enhance.

- Avoidance is the first and most critical step, where potential ecological harm is prevented through careful site selection, design modifications, and timing of activities. For the Project, this includes strategic decisions made during the early planning stages to steer infrastructure away from sensitive habitats and key ecological receptors.
- Minimisation involves reducing the scale, intensity, or duration of unavoidable impacts through best practice construction methods, operational controls, and

environmental safeguards. This ensures that any residual effects are as limited as possible.

- Restoration refers to efforts to rehabilitate habitats that are temporarily or permanently affected by the development. This may include replanting vegetation, reinstating natural features, or supporting the recovery of disturbed ecosystems.
- Enhancement, the final step, goes beyond mitigation. It involves proactive measures to improve biodiversity and ecosystem function beyond pre-development conditions. Unlike the first three steps, which are focused on managing impacts, enhancement is about creating additional ecological value.

3.3.1.2 Enhancement measures are not intended to offset impacts directly, but rather to contribute to broader ecological goals such as habitat connectivity, species recovery, and ecosystem resilience. These actions are informed by baseline assessments and feasibility reviews, and are selected for their potential to deliver significant, measurable biodiversity gains. By embedding enhancement within the project lifecycle and securing it through adaptive management and monitoring, the Project aims to leave the environment in a demonstrably better state than it would be without intervention.

## 4. Stakeholder Engagement

### 4.1 Pre-Application stakeholder engagement

4.1.1.1 This Section describes the consultation and stakeholder engagement undertaken by the Project during the development of the NPS and, in turn, the NPP.

4.1.1.2 In July 2023, the NPS was shared with Marine Directorate-Licensing Operations (MD-LOT) Team, NatureScot, Royal Society for the Protection of Birds (RSPB), and Aberdeenshire Council to present the Project's methods for delivering nature enhancement. From this consultation, the majority of the stakeholders did not have any additional comments or questions towards the NPS and agreed with the methods presented. NatureScot replied to the NPS with advice on upcoming and existing work which should be considered while creating the NPP.

4.1.1.3 NatureScot Response:

*"... We are aware there are current discussions going on at both the UK and Scottish Government levels to consider equivalent policy/ guidance for the marine and coastal environment. The development of the NPS should wherever possible reflect the development of this policy/ guidance, as well as other drivers including the Scottish Biodiversity Strategy and the Marine Strategy Framework Directive.*

*We highlight our existing work on the topic of Marine Enhancement, which may be helpful as you further develop the NPS:*

- *NatureScot - Professional Advice - Marine Enhancement topic page - <https://www.nature.scot/professional-advice/land-and-sea-management/managing-coasts-and-seas/marine-enhancement>*
- *NatureScot Information Note on Marine Habitat Enhancement, Recovery, Restoration and Creation in Scotland: Terminology and Examples - <https://www.nature.scot/doc/information-note-marine-habitat-enhancement-recovery-restoration-and-creation-scotland-terminology>*

*We also highlight our Commissioned Research Report 795 on Adaptive Management, which is also relevant to this topic- <https://www.nature.scot/sites/default/files/2017-07/Publication%202015%20-%20SNH%20Commissioned%20Report%20795%20-%20A%20review%20of%20approaches%20to%20adaptive%20management.pdf>*

*The Scottish Marine Environmental Enhancement Fund (SMEEF) may also be relevant to the NPS and any forthcoming NPP, as a method of identifying marine enhancement opportunities - <https://smeef.scot/>*

### 4.2 Post application stakeholder engagement

4.2.1.1 Following submission of the Project's application for consent, the Applicant will maintain an open and collaborative approach to stakeholder engagement as the NPP is refined and implemented. Ongoing engagement is essential to ensure that the final suite of biodiversity enhancement measures is robust, deliverable, and aligned with stakeholder expectations and regulatory requirements.

4.2.1.2 The Project recognises the value of cross-sector collaboration in delivering nature positive outcomes and intends to explore future partnerships with conservation organisations. These collaborations may include joint research initiatives, co-development of biodiversity enhancement measures, or financial support for targeted conservation projects. While no

formal agreements are in place at this stage, the Project is committed to engaging with stakeholders to ensure that offshore enhancement efforts are informed by the latest ecological evidence and aligned with broader conservation goals.

## 5. Baseline Conditions

5.1.1.1 The first stage of the NPP is to undertake a biodiversity and habitat baseline assessment. A robust understanding of the existing ecological context is fundamental to identifying meaningful opportunities for biodiversity enhancement. The baseline assessment for the Project (undertaken through the production of the EIA) has involved a combination of desk-based studies, designated site reviews, and site-specific surveys to establish the presence, condition, and value of habitats and species within and around the project area. The findings will inform the selection and prioritisation of nature positive measures, ensuring that they are grounded in evidence and tailored to the local ecological landscape.

### 5.1. Habitats

5.1.1.2 This section summarises where baseline information for habitats can be found within the Project's EIA Report for each of the listed receptors. A summary table is provided (Table 2), indicating the relevant chapters that contain habitat baseline summaries, along with references to appendices where further detail is available, where applicable.

Table 5-1 MarramWind EIA Chapter and Appendices Reference for Baseline Habitat Assessment

Receptor	Cross reference
<b>Terrestrial Ecology</b>	See section 23.6 in Chapter 23: Terrestrial Ecology and Ornithology for a baseline and for more details on survey results see Appendix 23.2, and 23.3.
<b>Marine Geology, Oceanography and Physical Processes</b>	See section 6.6 in Chapter 6: Marine Geology, Oceanography and Physical Processes for a baseline and for more details see Appendix 6.2.
<b>Marine Water and Sediment Quality</b>	See section 7.6 in Chapter 7: Marine Water and Sediment Quality for a baseline and for more details see Appendix 7.1 and 7.2
<b>Benthic, Epibenthic and Intertidal Ecology</b>	See section 10.6 in Chapter 10: Benthic, Epibenthic and Intertidal Ecology for a baseline, and for more details on survey results see Appendix 10.1, 10.2, 10.3, and 10.4.

### 5.2 Species

5.2.1.1 This section summarises where baseline information for species can be found within the Project's EIA report for each of the listed receptors. A summary table is provided (Table 3), indicating the relevant chapters that contain species baseline summaries, along with references to appendices where further detail is available, where applicable.

Table 5-2 MarramWind EIA Chapter and Appendices for Baseline Species Assessment

Receptor	Cross reference
<b>Terrestrial Ecology</b>	See section 23.6 in Chapter 23: Terrestrial Ecology and Ornithology for a baseline and for more details on survey results see Appendix 23.2, and 23.3.
<b>Marine Geology, Oceanography and Physical Processes</b>	See section 6.6 in Chapter 6: Marine Geology, Oceanography and Physical Processes for a baseline and for more details see Appendix 6.2.

<b>Marine Water and Sediment Quality</b>	See section 7.6 in Chapter 7: Marine Water and Sediment Quality for a baseline and for more details see Appendix 7.1 and 7.2
<b>Benthic, Epibenthic and Intertidal Ecology</b>	See section 10.6 in Chapter 10: Benthic, Epibenthic and Intertidal Ecology for a baseline, and for more details on survey results see Appendix 10.1
<b>Fish Ecology</b>	See section 13.6 in Chapter 13: Fish Ecology for a baseline of fish species.
<b>Marine Mammals</b>	See section 11.6 in Chapter 11: Marine Mammals for a baseline, and for more details on survey results see Appendix 11.1
<b>Offshore Ornithology and Intertidal</b>	See section 12.6 in Chapter 12: Offshore and Intertidal Ornithology for a baseline and for more details on survey results see Appendix 12.1.

## 6. Enhancement Opportunities

6.1.1.1 This section presents a shortlist of environmental measures identified as potential biodiversity enhancement options for the Project. These options have emerged following from the baseline assessment outcomes and a detailed market review and internal feasibility assessments, considering technical, legal, and financial constraints. While not yet confirmed, they represent promising opportunities to deliver nature positive outcomes and will be refined further as the project progresses.

### 6.1 Onshore enhancement

6.1.1.2 The onshore biodiversity enhancement strategy for the Project focuses on delivering tangible ecological benefits within and, if necessary, beyond the footprint of the proposed substation and cable corridor. Grounded in the principles of the NPS and informed by baseline ecological assessments, the onshore measures aim to restore, improve, and create habitats that support priority species and contribute to wider nature networks. The enhancement set out in this NPP respond directly to local biodiversity priorities, including those outlined in the North East Scotland LBAP, and are designed to complement the mitigation hierarchy by going beyond impact management to deliver additional ecological value. The following subsections outline a suite of potential onshore enhancement opportunities, each selected for its feasibility, relevance, and potential to contribute to the Project's nature positive objectives.

#### 6.1.1 Wildflower planting

6.1.1.2 One of the initial biodiversity enhancement opportunities identified for the onshore element of the Project is the creation of a native wildflower planting area within the grounds of the proposed substation. This initiative would be implemented in addition to any planting required for landscape and visual mitigation, representing a nature positive measure that goes above and beyond standard planning requirements.

6.1.1.3 While the exact size and layout of the available space will be finalised post consent, the approximate area which is available for planting is up to 11.7ha and the planting scheme will focus on native wildflower species that are ecologically appropriate for the local area and beneficial to the surrounding biodiversity.

6.1.1.4 The primary environmental benefits of this enhancement include supporting pollinator populations such as bees and butterflies, improving soil health through increased organic matter and microbial activity, and contributing to the visual amenity of the site for nearby communities and stakeholders. By integrating this measure into the substation design, the Project aims to deliver tangible ecological gains through practical, site-specific interventions.

#### 6.1.2 Sustainable drainage system enhancement

6.1.2.1 The second biodiversity enhancement opportunity identified at the onshore substation site involves the ecological enhancement of up to three Sustainable Drainage Systems (SuDS) ponds that will be created during the construction stage. While these ponds are primarily designed to manage surface water runoff and support flood resilience, this enhancement measure seeks to go beyond their functional role by transforming them into valuable ecological features. Enhancing SuDS ponds aligns with LBAP priorities for freshwater

habitats, contributing to the ecological function of small waterbodies and supporting species associated with wetland environments.

- 6.1.2.2 The proposed enhancements include the use of native aquatic and marginal plant species to support local biodiversity, the incorporation of deadwood and natural structural elements to provide habitat complexity, and the establishment of wildflower buffer strips around the pond margins to attract pollinators and improve visual amenity. Additional measures may include gentle sloping banks to facilitate access for amphibians and small mammals, and the creation of microhabitats such as basking areas for reptiles and nesting features for birds.
- 6.1.2.3 The final design of the SuDS ponds will be developed post-consent, allowing for further ecological assessment and refinement of enhancement measures. This will include identifying specific target species and tailoring interventions accordingly, such as installing habitat hotels, nesting boxes, or other bespoke features to support amphibians, reptiles, invertebrates, birds, and mammals. These enhancements will be designed to maximise ecological value and contribute meaningfully to the project's nature positive objectives.

### 6.1.3 Hedgerow restoration and enhancement

- 6.1.3.1 Another potential biodiversity enhancement measure for the onshore substation site is the restoration and ecological improvement of an existing hedgerow located within the project boundary.
- 6.1.3.2 Hedgerows are valuable linear habitats that can serve as wildlife corridors, nesting sites, and shelter for a wide range of species including birds, bats, insects, and small mammals. This enhancement would involve the re-establishment of native plant species such as hawthorn, blackthorn, and wild rose, which are well-suited to the local environment and known to support biodiversity. The ecological benefits of a restored hedgerow include improved habitat connectivity, increased foraging opportunities, and enhanced structural diversity, all of which contribute to ecosystem resilience and species movement across the landscape.
- 6.1.3.3 However, the feasibility and scope of this enhancement are subject to further assessment of the current condition of the hedgerow, which was not possible to complete prior to consent submission. A detailed ecological appraisal will be undertaken post-consent to determine the hedgerow's existing value and identify appropriate restoration techniques. This may include infill planting, gapping up, or structural improvements to increase its ecological function.
- 6.1.3.4 The outcome of this assessment will guide the final design and ensure that any restoration efforts are targeted, effective, and aligned with the Project's nature positive objectives.

### 6.1.4 Offsite nature enhancement

- 6.1.4.1 The final onshore biodiversity enhancement opportunity under consideration involves the potential for offsite nature enhancement measures within the wider Peterhead area. While specific locations cannot yet be confirmed due to the absence of formal landowner agreements and the need for further consultation with key stakeholders, two promising options have emerged through a site analysis process. This process evaluated a long list of potential enhancement areas and identified riparian restoration and coastal dune management as the most feasible and ecologically valuable opportunities.
- 6.1.4.2 Riparian restoration would focus on rehabilitating degraded sections of the riparian zone by re-establishing native vegetation and improving bank stability. This would enhance water

quality, support aquatic and semi-aquatic species, and strengthen ecological connectivity along the river corridor.

- 6.1.4.3 Dune management would aim to protect and restore coastal ecosystems by stabilising dune habitats, promoting native plant growth, and increasing resilience to erosion. These interventions would benefit a range of species, including invertebrates, birds, and coastal flora, while also contributing to climate adaptation and landscape-scale biodiversity goals.
- 6.1.4.4 Both options represent meaningful opportunities to deliver nature positive outcomes beyond the immediate project footprint. Their inclusion in the NPP will remain subject to further feasibility testing, stakeholder engagement, and land access agreements.

## 6.2 Offshore enhancement

- 6.2.1.1 The offshore biodiversity enhancement measures proposed for the Project differ in nature from the onshore options due to the emerging status of floating offshore wind technology and the relatively novel ecological interventions available in the marine environment. Many of the technologies currently under consideration are innovative and still in the early stages of development or testing.
- 6.2.1.2 As such, the options presented in this section are high-level concepts that show potential to deliver nature positive outcomes in the marine environment but will require further assessment and refinement as technologies mature and evidence of effectiveness becomes available. These measures will be revisited and evaluated in greater detail closer to the construction stage, ensuring that any enhancements implemented are feasible, ecologically beneficial, and aligned with best practice. It is important to note that not all the offshore concepts presented below will necessarily be implemented. The final selection will be based on detailed design, technical feasibility, and ongoing consultation with stakeholders.
- 6.2.1.3 To support the development of these concepts, a collaborative piece of work with the Scottish Association for Marine Science (SAMS) was commissioned to undertake a benefit analysis of currently available offshore enhancement options. This work incorporates scientific and academic insight into the ecological feasibility of each concept, assessing their potential effectiveness based on the biology of habitats and species present in the project area. The findings from this analysis have been used to inform and refine the enhancement concepts presented below.
- 6.2.1.4 Furthermore, informed by the Collaboration for Environmental Mitigation and Nature Inclusive Design (CEMNID) Final Report<sup>4</sup>, which was a collaborative project between offshore developers and Scottish regulators that conducted a suitability review of nature inclusive design (NID) measures, the Project's offshore enhancement strategy integrates NID measures tailored to the Scottish marine environment. Key interventions, such as modular reef structures and cable protection mattresses, may be selected based on the NID Suitability Review and aligned with Scotland's NPF4 Policy 3 and Biodiversity Strategy to 2045. The Applicant commits to revisiting enhancement options during detailed design and construction stages, ensuring ecological relevance and technical feasibility. The Applicant's collaboration with SAMS continues the evidence-led approach championed by CEMNID.

<sup>4</sup> Collaboration for Environmental Mitigation & Nature Inclusive Design (CEMNID) Final Report (Xodus for Crown Estate Scotland, 2024)

## 6.2.1 Ecofriendly cable protection mattresses

6.2.1.1 One of the initial offshore biodiversity enhancement concepts under consideration for the Project is the use of ecofriendly cable protection reef mats, also known as nature-inclusive marine mattresses, in areas where traditional cable burial is not feasible. These mats serve a dual purpose, they provide essential protection and stabilisation for subsea power cables while also enhancing marine biodiversity. Unlike conventional concrete mattresses, which offer limited ecological value, these innovative structures are designed using bio-enhancing materials and complex surface textures that promote the colonisation of benthic marine species. Their three-dimensional design creates microhabitats that support the settlement, sheltering, and feeding of marine flora and fauna, including algae, crustaceans, molluscs, and fish. By increasing habitat complexity, these mats can also help reduce the dominance of invasive species and strengthen local food webs.

6.2.1.2 As floating offshore wind technology continues to evolve, the feasibility and effectiveness of these mats will be revisited post consent to ensure they align with both technical requirements and nature positive objectives. If this option is selected for the Project, the exact size, number, and location of reef mats will be determined during the detailed design phase, once further engineering and ecological assessments have been completed.

## 6.2.2 Ecofriendly scour protection

6.2.2.1 A second offshore biodiversity enhancement concept being considered for the Project is the use of scour protection reef-type concrete blocks. These eco-engineered concrete blocks are designed to stabilise the seabed around turbine foundations while simultaneously enhancing marine biodiversity. They can be deployed exclusively as scour protection or integrated within existing scour protection systems. Unlike traditional rock armour, reef-type concrete blocks feature rough, textured surfaces and built-in cavities that mimic natural reef structures. These design features promote the settlement and sheltering of marine organisms such as crustaceans, molluscs, fish, and algae, creating microhabitats that support feeding, breeding, and refuge. Their porous surfaces also encourage the growth of marine plants, contributing to habitat complexity and ecological resilience.

6.2.2.2 The Project will include an offshore substation, which presents an opportunity for scour protection deployment around its foundations. The project does not require scour protection for the anchors of the floating wind turbine structures, due to their design and seabed interaction characteristics. As floating offshore wind technology continues to evolve, the suitability and effectiveness of reef-type concrete blocks will be revisited closer to construction to ensure they deliver both infrastructure stability and nature positive outcomes. If selected as an option, the specific size, number, and deployment locations of the reef structures will be determined during the detailed design phase. These decisions will be informed by further ecological assessments and engineering feasibility studies.

## 6.2.3 Habitat enhancing pipes or standalone structures

6.2.3.1 A third offshore biodiversity enhancement concept involves the deployment of standalone reef structures designed to create artificial habitats and promote marine biodiversity. These structures may include reef blocks, fish pipes, and other forms of habitat hotels, which are placed independently of turbine foundations or cable routes. Unlike traditional infrastructure, these features are specifically engineered to provide ecological benefits by mimicking natural reef environments. They are typically constructed from ecofriendly, low-carbon materials and incorporate complex textures, cavities, and varied geometries that support colonisation by benthic species such as crustaceans, molluscs, and algae, as well as demersal fish like Atlantic cod and wrasse.

- 6.2.3.2 These standalone structures offer shelter, breeding grounds, and foraging opportunities, contributing to habitat complexity and enhancing local food webs. Cod pipes, for example, are designed to replicate the crevices and overhangs found in rocky reef habitats, providing refuge for juvenile and adult cod. Habitat hotels may include modular units tailored to specific species groups, supporting biodiversity across multiple trophic levels.
- 6.2.3.3 It is important to note that the adoption of standalone structures will be subject to additional marine licensing requirements, as their deployment on the seabed constitutes a licensable activity under the Marine (Scotland) Act 2010. These requirements will be considered as part of the consenting strategy, and further consultation with regulators and stakeholders will be undertaken to ensure compliance and maximise ecological benefit.

#### 6.2.4 Seaweed farming

- 6.2.4.1 An additional biodiversity enhancement concept being explored for the Project is the potential installation of seaweed farming and/or habitat generation units. These structures would be designed to promote the growth of native seaweed species either as part of a habitat enhancement strategy or for sustainable harvesting. Seaweed plays a vital ecological role in marine ecosystems, offering shelter and foraging grounds for a wide range of marine life including juvenile fish, invertebrates, and seabirds. It also contributes to water quality improvement, carbon sequestration, and shoreline protection. The enhancement could take the form of habitat stations that encourage natural colonisation or structured farming systems that support both biodiversity and low-impact aquaculture.
- 6.2.4.2 As seaweed enhancement in offshore wind contexts is still an emerging practice, the Project will continue to assess its feasibility through ongoing research and stakeholder engagement. The optimal design, scale, and location of seaweed units will be determined during the detailed design phase. These measures will be revisited post-consent to ensure they are ecologically appropriate, technically viable, and aligned with the project's nature positive objectives.

#### 6.2.5 Offsite nature enhancement

- 6.2.5.1 At this stage, in addition to the measure outlined above, the Project is also exploring the potential for offsite enhancement opportunities. Further work is required to assess feasibility and align with evolving regional priorities of these opportunities. However, the project remains open to exploring a wide range of enhancement choices, including those that may emerge in the future as the Project progresses through development. These prospects will be further explored post-consent, with consideration given to potential collaboration with established environmental organisations and relevant marine stakeholders.

# 7. Refinement, Delivery, and Monitoring

## 7.1 Refinement

- 7.1.1.1 The nature enhancement options identified within this plan will be further developed post consent in consultation with stakeholders. As the Project progresses, each proposed biodiversity enhancement measure will undergo further development and refinement to determine the precise scope, scale, and implementation requirements. This process will involve detailed design work, and ongoing consultation with stakeholders to ensure that all the selected enhancement measures are both feasible and ecologically meaningful.
- 7.1.1.2 Once the necessary details and specifications have been established, the full suite of measures will be subject to evaluation using the assessment framework outlined in the NPS. This structured assessment will ensure that all enhancement actions are robustly justified, aligned with project objectives, and capable of delivering measurable nature positive outcomes. The results of this assessment will be presented in an update to the Nature Positive Plan.

## 7.2 Delivery

- 7.2.1.1 Following the selection and refinement of the final suite of enhancement measures, a detailed Nature Enhancement Implementation and Monitoring Plan will be produced. This plan will set out specific actions, responsibilities and timelines for delivery, as well as the monitoring protocols to ensure that the selected measures deliver measurable biodiversity benefits and remain aligned with best practice and regulatory requirements throughout the project lifecycle. For the onshore elements within the NPP, the Project expects the delivery of the implementation and monitoring plan will be a condition of the Planning Permission in Principle (PPiP) from Aberdeenshire Council. Although currently for the offshore there is not expected to be any condition from the consent application, the Project is committed to continue with the efforts in assessing offshore enhancement options.

## 7.3 Monitoring and adaptive management

- 7.3.1.1 Monitoring will be tailored to the specific enhancement measures adopted for the project. It will be designed to address the objectives of the Nature Positive Plan, provide robust feedback on progress and compliance, and inform reporting and adaptive decision-making. The results of monitoring will be used to assess the effectiveness of enhancement measures and to guide any necessary adjustments through adaptive management. This ensures that the project remains responsive to new information and changing ecological conditions, supporting the long-term success of nature positive outcomes.
- 7.3.1.2 The Nature Enhancement Implementation and Monitoring Plan will remain a dynamic document, regularly reviewed and updated to reflect new information, project progress, and stakeholder feedback. Progress and outcomes will be reported to stakeholders throughout the project lifecycle.

## 8. Conclusion and Next Steps

8.1.1.1 The NPP is a dynamic, evolving document. As the project advances, further design work and assessment will be undertaken to select the most appropriate biodiversity enhancement measures. Following the identification of the final measures the NPP will be updated to include the assessment outlined within the NPS. Following this, the Project will develop the Nature Enhancement Implementation and Monitoring Plan.

8.1.1.2 The following onshore enhancement measures will be further developed and refined post consent:

- Wildflower planting.
- SuDS pond enhancement.
- Hedgerow restoration.

8.1.1.3 In addition to this, the Project will continue to explore and develop onshore offsite enhancement opportunities. This may include riparian corridor enhancement or dune management.

8.1.1.4 The Project will review and refine the current shortlist of offshore enhancement options to select those that are technically feasible for the Project with the greatest potential for positive ecological outcomes. The offshore measures under consideration include:

- Ecofriendly cable protection mattresses.
- Ecofriendly scour protection.
- Habitat-enhancing pipes or standalone structures.
- Seaweed farming.

8.1.1.5 It is important to note that not all offshore measures listed will necessarily be implemented. The final selection will be based on detailed design, technical feasibility, and ongoing consultation with stakeholders.

8.1.1.6 The Nature Enhancement Implementation and Monitoring Plan will set out clear actions, responsibilities, and monitoring protocols to ensure effective delivery of enhancement measures. Regular monitoring and transparent reporting will underpin an adaptive management approach, ensuring that measures remain effective and responsive to changing ecological conditions.

8.1.1.7 Next steps will include:

- Undertake detailed design and feasibility assessments for shortlisted enhancement options.
- Continue stakeholder engagement to inform refinement and delivery of the updated NPP.
- Finalise the Nature Enhancement Implementation and Monitoring Plan.
- Secure enhancement measures through appropriate planning and licensing mechanisms.
- Establish monitoring and reporting frameworks to support adaptive management.

