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Offshore Wind Farm

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Volume 8 Additional Information

Caledonia Offshore Wind Farm EIAR and HRA Addendum

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Table of Contents

Executive Summary vii
1 Introduction 1
2 Legislation and Policy 5
3 Consultation 7
3.1 Overview 7
3.2 Request for Additional Information 11
4 Proposed Development (Offshore) Description 17
4.1 Overview 17
4.2 Amendments to Proposed Development (Offshore) Description 22
5 Environmental Effects 23
5.1 Overview 23
5.2 Marine and Coastal Processes 25
5.2.1 EIAR 25
5.2.2 NCMPA 27
5.3 Benthic Subtidal and Intertidal Ecology 29
5.3.1 EIAR 29
5.3.2 NCMPA 29
5.4 Fish and Shellfish Ecology 30
5.4.1 EIAR 30
5.5 Marine Mammals 32
5.5.1 EIAR 32
5.5.2 RIAA 34
5.6 Offshore Ornithology 36
5.6.1 EIAR and RIAA 36
5.6.2 Shadow Derogation Case 39
6 Summary and Conclusions 41
References 42

List of Figures

Figure 4–1: Location of the Proposed Development (Offshore), including the Caledonia OWF and the Caledonia Offshore Export Cable Corridor (OECC). 18

Figure 4–2: Location of Caledonia North, including the Caledonia North Site and the Caledonia North Offshore Export Cable Corridor (OECC). 19

Figure 4–3: Location of Caledonia South, including the Caledonia South Site and the Caledonia South Offshore Export Cable Corridor (OECC).....20

List of Tables

Table 1-1: EIAR and Application Document structure. 3
Table 3-1: Stakeholder engagement activities during determination phase. 8
Table 3-2: Summary of Request for Additional Information from MD-LOT.....12
Table 4-1: Outline description of the Proposed Development (Offshore). 21
Table 4-2: Amended Project Parameters. 22
Table 5-1: Technical appendices and their relevant technical topic. 23

Acronyms and Abbreviations

ARI	Annual Recurrence Interval
CMEMS	Copernicus Marine Service Information
CRM	Collision Risk Modelling
DE	Design Envelope
DEFRA	Department for Environment, Food and Rural Affairs
ECMR	Environmental Compensatory Measures Reforms
EIAR	Environmental Impact Assessment Report
HRA	Habitats Regulations Appraisal
HVAC	High Voltage Alternating Current
INTOG	Innovation and Targeted Oil and Gas
JNCC	Joint Nature Conservation Committee
MD-LOT	Marine Directorate – Licensing Operations Team
MD-SEDD	Marine Directorate – Science Evidence Data and Digital
MPA	Marine Protected Area
NAF	Nocturnal Activity Factor
NCMPA	Nature Conservation Marine Protected Area
NETS	National Electricity Transmission System
OECC	Offshore Export Cable Corridor
OSP	Offshore Substation Platform
OWF	Offshore Wind Farm
PSA	Particle Size Analysis
RIAA	Report to Inform Appropriate Assessment

SAC	Special Area of Conservation
SMP	Sectoral Marine Plan
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
WTG	Wind Turbine Generator

Executive Summary

Overview

This Addendum to the Caledonia Offshore Wind Farm (OWF) Environmental Impact Assessment Report (EIAR) and Habitats Regulations Appraisal (HRA), and supporting technical appendices, supplements and updates elements of the original consent application documents submitted by Caledonia Offshore Wind Farm Ltd (the Applicant) to the Marine Directorate – Licensing Operations Team (MD-LOT) in November 2024.

Updates to the design envelope include a reduction in anchor piles per Tension Leg Platform (floating) foundation, resulting in a reduction of piling days for the Proposed Development (Offshore) to 339, and specifically to 275 for Caledonia South (noting floating foundations are not included within the design envelope for Caledonia North).

This Addendum has been produced in response to MD-LOT's formal Request for Additional Information, received on 17 July 2025. The request was made to support MD-LOT in reaching a reasoned conclusion on the likely significance of environmental effects from the Proposed Development (Offshore). It also addressed several points of clarification raised during stakeholder consultation. The request for additional information relates to the following receptors/topics:

- Marine and coastal processes;
- Benthic subtidal and intertidal ecology;
- Fish and shellfish ecology;
- Marine mammals; and
- Ornithology (including HRA/shadow derogation).

Marine and Coastal Processes

Regarding Marine and Coastal Processes, the Applicant provided evidence confirming that the array area and offshore export cable corridor (OECC) of the Proposed Development (Offshore) experience seasonal water column stratification, with both temperature and salinity differences being observed. However, some data limitations mean the exact strength and extent of this stratification are uncertain. The potential effects of the Proposed Development (Offshore) on water column structure have been assessed and considered Not Significant in Environmental Impact Assessment (EIA) terms.

The Applicant addressed NatureScot's request for further assessment of the cumulative impact of storm wave height on geodiversity features and coastal receptors, including Sites of Special Scientific Interest (SSSI). Numerical modelling demonstrates that the Proposed Development (Offshore) would only cause a minor reduction (1–2%) in significant wave height within the Southern Trench Nature Conservation Marine Protected Area (NCMPA) and Cullen to Stake Ness SSSI, with no significant impact on sediment transport or sensitive features. Overall, the cumulative effects on geodiversity and coastal sites are considered Not Significant in EIA terms.

Benthic Subtidal and Intertidal Ecology

Although no specific request was made by MD-LOT, NatureScot recommended an ecosystem-level assessment. In response, the Applicant has provided an Ecosystem Level Effects report, which concluded that the Proposed Development (Offshore) is unlikely to cause significant negative impacts at the ecosystem level and may even offer local ecological benefits, such as enhanced biodiversity and support for prey species.

In response to the Request for Additional Information from MD-LOT and NatureScot, the Applicant assessed the potential permanent habitat loss of burrowed mud within the Southern Trench NCMPA, both for the Proposed Development (Offshore) alone and cumulatively with other projects. The assessment concluded that there is no significant risk to burrowed mud habitats from the Proposed Development (Offshore), and therefore no additional conditions are required for these activities.

Fish and Shellfish Ecology

Although MD-LOT did not request further information, NatureScot raised concerns about cumulative impacts on herring and sandeel, and disagreed with some conclusions on spawning habitat. The Applicant has provided additional information and corrected mapping errors, but these updates did not change the original assessment, which found effects on herring were Not Significant in EIA terms. The Applicant is committed to environmental monitoring and is open to further discussions on strategic research and monitoring for fish.

Marine Mammals

Following discussions with MD-LOT and NatureScot, the Applicant reassessed the potential impacts of piling on marine mammals, including harbour porpoise, bottlenose dolphin, minke whale, and harbour seal. Updated modelling using more realistic deterrence functions showed that both project-specific and cumulative impacts are lower than previously predicted, with negligible to minor effects and no significant impact on population trajectories. Any potential impacts from overlapping construction activities are expected to be localised and temporary.

MD-LOT did not request for additional information in relation to marine mammals. However, due to progressing discussions with relevant stakeholders regarding the advice provided by NatureScot and potential further assessment, MD-LOT welcomed the Applicant to submit outputs from such discussions in support of the consent applications. The re-assessment of disturbance due to piling, noting the above reduction in piling days within the design envelope, indicates that both Proposed Development (Offshore) alone and cumulative impacts are lower than those predicted in the original EIAR submission. The application of the deterrence function has provided more realistic estimates of disturbance, reducing predicted effects across all cetaceans. For harbour porpoise, bottlenose dolphin, minke whale and harbour seal, the updated analysis predicts negligible to minor impacts, with no significant effects on population trajectories in the long-term. Consequently, the effects for all species are concluded to be Not Significant in EIA terms.

An assessment of cumulative impacts of the respective OECCs was carried out for bottlenose dolphins, with particular focus on the Coastal East Scotland (CES) Management Unit (MU) and the Moray Firth Special Area of Conservation (SAC), as well as minke whales and the Southern

Trench NCMPA. The assessment indicates that overlapping OECCs within the CES MU and the Southern Trench NCMPA may increase the potential for increased vessel presence from cable-lay vessels and associated vessels, but noting these are likely relatively short campaigns. It is considered unlikely that multiple projects will undertake construction within the same location and timeframe, and any associated impacts are therefore expected to be localised and temporary.

It was advised that the Dornoch Firth and Morrich More SAC, designated for harbour seals (*Phoca vitulina*), should have been retained in the assessment as part of the Caledonia North and Caledonia South Report to Inform Appropriate Assessment (RIAA) in accordance with the precautionary 50km screening threshold as set out in their advice on the Proposed Development (Offshore) HRA Stage 1 Screening Report. Therefore, marine mammals elements of the RIAAs have been updated based on consultation and refinements to the design envelope of the Proposed Development (Offshore).

The Dornoch Firth and Morrich More SAC has been screened in for noise impacts on harbour seal, with an environmental baseline and site context is established. The assessment concludes that the Proposed Development (Offshore), Caledonia North and Caledonia South will not result in adverse effect on site integrity both alone or in-combination with other projects and plans. Separately, additional modelling and iPCoD analysis has been carried out for bottlenose dolphin in relation to the Moray Firth SAC. The information necessary to inform the Appropriate Assessment on impacts on the bottlenose dolphin qualifying interest of the Moray Firth SAC has been updated, with the assessment also concluding no adverse effect on site integrity from the Proposed Development (Offshore), Caledonia North and Caledonia South alone and in-combination with other projects and plans.

Ornithology (including HRA/shadow derogation)

The Applicant received request for further information from MD-LOT relating to EIA and HRA aspects of the consent applications. Cumulative assessments have been undertaken for Caledonia North (excluding Caledonia South) and for Caledonia South (excluding Caledonia North) as agreed in consultation with NatureScot and MD-LOT. A qualitative cumulative assessment of potential distributional responses during construction and decommissioning phases of the Proposed Development (Offshore), Caledonia North and Caledonia is presented.

Revised HRA screening and apportionment has been undertaken following advice provided by NatureScot. Updated predicted impacts for distributional responses and collision as a result of the changes made to HRA screening and apportionment for the Proposed Development (Offshore), Caledonia North and Caledonia South alone and in-combination with other plans and projects during the operational and maintenance phase are presented. An updated in-combination assessment is presented for the Proposed Development (Offshore) to account for the changes made to HRA screening and apportionment. Updated PVA has been undertaken for relevant populations due to the revised predicted impacts of the Proposed Development (Offshore), Caledonia North and Caledonia South.

No adverse effects on site integrity was concluded for all sites designated for offshore and intertidal ornithology for the Proposed Development (Offshore), Caledonia North and Caledonia South alone; however, the following sites concluded adverse effects on site integrity in-

combination with other plans and projects (noting there are differences between Caledonia North and Caledonia South):

- East Caithness Cliffs SPA for razorbill *Alca torda,* kittiwake *Rissa tridactyla* and guillemot *Uria aalge*;
- North Caithness Cliffs SPA for puffin *Fratercula arctica* and kittiwake;
- Forth Islands SPA for gannet *Morus bassanus*;
- Buchan Ness to Collieston Coast SPA for kittiwake;
- Troup, Pennan and Lion's Head SPA for kittiwake and guillemot.

The consent applications for Caledonia North and Caledonia South are supported by a derogation case, including the development of compensation measures. For guillemot, razorbill and puffin, this derogation case is without prejudice, based on the fact that the Applicant Approach in the Caledonia North and Caledonia South RIAAs concluded no adverse effects on site integrity for those species. The Applicant received a request for further information from MD-LOT, highlighting the advice provided by NatureScot and RSPB that there is insufficient information to have confidence that the proposed measures are likely to compensate for the predicted impacts of the proposal to seabirds.

Updates to the compensation plan provide key information and updates on the proposed compensation measures. It sets out the proposed compensation quanta, including methodology and calculations, to be applied based on predicted impacts using the Guidance and Applicant Approaches to assessment. Noting the Applicant's preference for delivering compensation is through a contribution to a strategic compensation programme, it also provides further detailed information on the following project-specific compensation measures:

- Reduction of disturbance at colonies;
- Mammalian predator management;
- Bycatch mitigation;
- Restoration or maintenance of breeding sites; and
- Conservation management funding.

Since the consent applications were submitted, the Applicant has partnered with National Trust for Scotland (NTS) and Muir Mhòr OWF to develop a programme of predator control and biosecurity on NTS islands. A letter of intent from NTS has been received by the Applicant, and a Memorandum of Understanding has been signed between the Applicant and Muir Mhòr. Site visits by the Applicant to the East Caithness Cliffs and the Isle of May have identified a number of potential locations for compensatory measures to be progressed.

A Refined Outline Implementation and Monitoring Plan has been produced alongside the compensation plan updates, providing further detail on the implementation and monitoring of the measures as developed since the consent applications were submitted in November 2024. The Refined Outline IMP also provides an indicative roadmap for measure refinement, monitoring and implementation. The final scale of compensation to be delivered will be consulted upon with the steering groups post-consent and captured in the final IMP.

1 Introduction

1.1.1.1 This Addendum to the Caledonia Offshore Wind Farm (OWF) consent applications has been prepared to supplement and, in part, update elements of the Environmental Impact Assessment Report (EIAR) and Habitats Regulations Appraisal (HRA) which were submitted by Caledonia Offshore Wind Farm Limited (the Applicant) to the Marine Directorate – Licensing Operations Team (MD-LOT) in November 2024.

1.1.1.2 The Proposed Development (Offshore) is anticipated to be delivered in up to two phases to reflect the availability of connection to the National Electricity Transmission System (NETS) at the time of construction (see Volume 1, Chapter 5: Proposed Development Phasing of the EIAR). Two consent and associated marine licence applications were submitted to MD-LOT to support with phased delivery as follows:

- Caledonia North:
  - A **Section 36 Consent** under the Electricity Act 1989;
  - A **Generation Marine Licence** to allow the deposition of the wind farm and associated infrastructure on the seabed; and
  - A **Transmission Marine Licence** for the Offshore Transmission Infrastructure associated with Caledonia North.
- Caledonia South:
  - A **Section 36 Consent** under the Electricity Act 1989;
  - A **Generation Marine Licence** to allow the deposition of the wind farm and associated infrastructure on the seabed; and
  - A **Transmission Marine Licence** for the Offshore Transmission Infrastructure associated with Caledonia South.

1.1.1.3 The EIAR structure has been developed to allow each of these offshore application areas to be considered standalone. The assessment considers up to 77 Wind Turbine Generators (WTGs) in Caledonia North and up to 78 WTG in Caledonia South; however, the total WTGs of the Proposed Development (Offshore) will not exceed 140 WTGs hence the reason for structuring the EIAR to allow each development scenario to be considered separately.

1.1.1.4 The HRA has been presented within various Application Documents, submitted alongside and informed by the EIAR, including the Report to Inform Appropriate Assessment (RIAA), derogation case and compensation package. While similarities exist across the HRA documentation for Caledonia North and Caledonia South, discrete versions of each document were submitted to accompany the respective consent applications.

1.1.1.5 It is noted that an application for Planning Permission in Principle for the Onshore Transmission Infrastructure (Proposed Development (Onshore)) was submitted to Aberdeenshire Council in November 2024 and subsequently

approved in June 2025. However, this Addendum is of relevance to the Proposed Development (Offshore) only.

1.1.1.6 This Addendum incorporates new information associated with the Proposed Development (Offshore), including;

- Responses to requests for clarification and further information from consultees on the EIAR and HRA; and
- Refinements to the Design Envelope since the consent applications were submitted in November 2024.

1.1.1.7 The information contained within this Addendum is either supplementary or replaces information contained within the EIAR and HRA. The relationship between the information contained within this Addendum and the EIAR/HRA is clearly stated throughout this document and associated appendices, and this document should be read in conjunction with the EIAR and HRA submitted in November 2024 (see Table 1-1 for structure of documentation supporting the consent applications).

1.1.1.8 This Addendum has been produced in response to MD-LOT's Request for Additional Information received on 17 July 2025, in support of the consent applications made for the Proposed Development (Offshore) in November 2024. The information contained within this report includes:

- Additional information as defined under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 and the Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017, as:
  - Supplementary information about any matter mentioned in Schedule 4 of these regulations which in the opinion of the Scottish Ministers is directly relevant to reaching a reasoned conclusion on the significant effects of the development on the environment; and
  - Any other relevant information which, in the opinion of the Scottish Ministers, is substantive information about a matter to be included in the EIAR (and HRA);
- Further information, as defined under Regulation 14(1A) of the Marine Works (Environmental Impact Assessment) Regulations 2007, which includes information directly relevant to reaching a conclusion about the significant effects of the development; and
- Any other information in response to the specific clarification points raised by consultees that, in the Applicant's opinion, is of relevance to MD-LOT's Additional Information Request.

Table 1-1: EIAR and Application Document structure.

Document	Content
Licence Application Documents	Section 36 letter and Marine Licence application forms
EIAR	▪ EIAR Guide ▪ Non-Technical Summary ▪ Volume 1 – Overview Chapters ▪ Volume 2 – Proposed Development (Offshore) ▪ Volume 3 – Caledonia North ▪ Volume 4 – Caledonia South ▪ Volume 5 – Proposed Development (Onshore) ▪ Volume 6 – Combined and Intertidal Assessment ▪ Volume 7 – Technical Appendices (Standalone Documents) ▪ Volume 7A – Technical Appendices (Overview Chapters) ▪ Volume 7B – Technical Appendices (Proposed Development (Offshore)) ▪ Volume 7C – Technical Appendices (Caledonia North) ▪ Volume 7D – Technical Appendices (Caledonia South) ▪ Volume 7E – Technical Appendices (Proposed Development (Onshore)) ▪ Volume 7F – Technical Appendices (Intertidal and Combined)
Application Documents	▪ Pre-Application Consultation Report ▪ Design and Access Statement ▪ Onshore Planning Statement ▪ Caledonia North Planning Statement ▪ Caledonia South Planning Statement ▪ Drainage Impact Assessment ▪ Outline Peat Management Plan ▪ Outline Habitat Management Plan ▪ Marine Protected Area Assessment ▪ Onshore HRA Screening Report ▪ Onshore Report to Inform Appropriate Assessment ▪ Offshore HRA Screening Report ▪ Caledonia North Report to Inform Appropriate Assessment (Part 1–4) ▪ Caledonia North Apportioning Technical Note (and annex) ▪ Caledonia North Habitats Regulations Appraisal Population Viability Assessment Technical Report ▪ Caledonia North Integrity Matrices ▪ Caledonia North Derogation Case ▪ Caledonia North Statement of Need ▪ Caledonia North Compensation Longlist and Shortlist ▪ Caledonia North Compensation Plan and Site Selection ▪ Caledonia North Implementation and Monitoring Plan ▪ Caledonia South Report to Inform Appropriate Assessment (Part 1–4) ▪ Caledonia South Apportioning Technical Note (and annex)

Document	Content
	▪ Caledonia South Habitats Regulations Appraisal Population Viability Assessment Technical Report ▪ Caledonia South Integrity Matrices ▪ Caledonia South Derogation Case ▪ Caledonia South Statement of Need ▪ Caledonia South Compensation Longlist and Shortlist ▪ Caledonia South Compensation Plan and Site Selection ▪ Caledonia South Implementation and Monitoring Plan

2 Legislation and Policy

2.1.1.1 A full list of legislation and policy relevant to the Proposed Development (Offshore) is presented in Volume 1, Chapter 2: Legislation and Policy of the EIAR.

2.1.1.2 The Applicant frequently reviews any new legislation and policy items and updates to existing legislation and policy. This section provides details on updates to existing legislation and policy since the submission of the EIAR and HRA, as well as any new or emerging legislation and policy.

2.1.1.3 The Sectoral Marine Plan for Offshore Wind Energy (Scottish Government, 2020a[1]) was first published in October 2020, forming a significant contribution to the Scottish Government's target of net zero emissions by 2045. It established the planning baseline for the sustainable development of offshore wind in Scottish waters. The Scottish Government progressed the development of offshore wind installations through the ScotWind and Innovation and Targeted Oil and Gas (INTOG) leasing rounds, which has resulted in a pipeline of offshore wind and INTOG installations to be rolled out over the next decade. In May 2025, the Scottish Government announced it was opening consultation of the draft updated Sectoral Marine Plan for Offshore Wind Energy, which builds on the original plan through the addition of new scientific evidence, policy developments and stakeholder inputs. Consultation for the draft closed on 22 August 2025, with all responses to be analysed and considered in due course.

2.1.1.4 The original Offshore Wind Policy Statement was published in 2020 (Scottish Government, 2020b[2]), outlining an ambition that Scotland's 2 gigawatts (GW) of operational and under construction offshore wind capacity (at the time) could grow to between 8 and 11GW by 2030. The Scottish Government released an update to the 2020 Offshore Wind Policy Statement for consultation in June 2025, which reflects changes in the policy and legislation landscape and the expansion of the ScotWind and INTOG offshore wind pipeline to over 40GW. The updated Statement includes a focus on the industry post-2030, with consultation questions on the topic of the appropriateness of a target of 40GW of offshore wind capacity by 2035-40. Consultation closed on 13 August 2025, with all responses to be analysed and considered in due course.

2.1.1.5 The Scottish Government published the Scottish Marine Recovery Fund: Interim Guidance in July 2025 (Scottish Government, 2025[3]). This interim guidance proposes the shift from like-for-like compensatory measures to a tiered, strategic approach that would provide benefits to the wider Marine Protected Area (MPA) as opposed to a specific impacted feature.

2.1.1.6 The Department for Environment, Food and Rural Affairs (Defra) published a number of proposed Environmental Compensatory Measures Reforms (ECMR) in July 2025 (Defra, 2025[4]). The purpose of these reforms is to provide more clarity on requirements for environmental compensation for OWF developments. The ECMR aims to create more flexibility for securing environmental compensation, in addition to further clarity of the mitigation hierarchy, additionality (measures should no duplicate existing site conservation measures), clarity on the timing of compensation measures, adaptive management where compensation measures may not be ecologically effective and the safeguarding of Marine Irreplaceable Habitats. Consultation on the ECMR closed on 02 September 2025, with all responses to be analysed and considered in due course.

3 Consultation

3.1 Overview

3.1.1.1 A full list of statutory and non-statutory consultees relevant to the Proposed Development (Offshore) who were consulted with during the scoping and pre-application phase is presented in Volume 1, Chapter 8: Stakeholder Engagement and Consultation of the EIAR.

3.1.1.2 The Applicant has continued to consult with stakeholders following submission of the consent applications in November 2024 throughout the determination period, as summarised in Table 3-1.

Table 3-1: Stakeholder engagement activities during determination phase.

Date	Stakeholder	Technical Topic	Summary
05 February 2025	SSEN	General	Meeting to discuss the Proposed Development consent applications and potential interactions between stakeholders existing and planned assets.
01 April 2025	MD-LOT	General	Quarterly catch-up including discussion on consultation results.
08 April 2025	Highland and Islands Airports Limited	Civil Aviation	Meeting at Wick John O'Groats Airport to agree next steps to securing Instrument Flight Procedure (IFP) mitigation.
06 May 2025	The Highland Council	General	Meeting with The Highland Council to discuss its review and queries associated with the Caledonia North consent application.
22 May 2025	Transport Scotland and Serco NorthLink	Shipping and Navigation	Email correspondence from Transport Scotland regarding discussions with Serco NorthLink about the Proposed Development (Offshore). Confirmation that Serco NorthLink is content with the changes made to the Proposed Development (Offshore), via the proposed Structure Exclusion Zone, and it will not impinge on the Northern Isles Ferry Service routes and allows some degree of flexibility to change course, if required.
04 June 2025	NatureScot and MD-LOT	Offshore Ornithology and Marine Mammals	Meeting to provide a project update and to discuss NatureScot's marine mammals and offshore ornithology representations to the Caledonia North and Caledonia South consent applications.
11 June 2025	MD-LOT	General	Quarterly catch-up.
13 June 2025	NatureScot and MD-SEDD	Marine Mammals	Meeting to present the Applicant's approach to reviewing and refining piling parameters and management of expectations. Stakeholders clarified some points and confirmed approach to refinement was appropriate.

Date	Stakeholder	Technical Topic	Summary
03 July 2025	SHEFA	General	Meeting to discuss the Proposed Development status and commence engagement on crossing and proximity agreements to the stakeholders telecoms cable.
08 July 2025	SSEN	General	Meeting with SSEN to discuss Proposed Development status and commence engagement on crossing and proximity agreements.
10 July 2025	MD-LOT	General	Meeting with MD-LOT to discuss status of Additional Information request.
17 July 2025	MD-LOT	General	Request for Additional Information received by email.
05 August 2025	NatureScot and MD-LOT	Marine Mammals	Meeting to discuss the Applicant's proposed approach to the re-assessment of the Moray Firth Special Area of Conservation (SAC), designated for bottlenose dolphin, as well as cumulative effects assessment for marine mammals.
07 August 2025	NatureScot and MD-LOT	Offshore Ornithology	Meeting to discuss the Applicant's re-assessment for ornithology, specifically relating to approaches to HRA screening, apportioning and Population Viability Analysis (PVA).
07 August 2025	NatureScot	Offshore Ornithology	Email correspondence regarding NatureScot's review and confirmation of updated HRA screening, noting small clerical error for kittiwake at Hermaness, Saxa Vord and Valla Field Special Protection Area (SPA). NatureScot confirmed being content with the exclusion of gulls in the breeding season due to lack of sightings.
18 August 2025	NatureScot	Offshore Ornithology	Email correspondence regarding NatureScot review and confirmation of updated impacts apportioned to each SPA and what HRA-level PVA will be re-run.
21 August 2025	NatureScot	Offshore Ornithology	Email correspondence confirming the Applicant should use the latest North East and East Ornithology Group (NEEOG) dataset in cumulative/in-combination ornithology assessments.

Date	Stakeholder	Technical Topic	Summary
21 August 2025	NatureScot	Marine Mammals	Advice received by email regarding approach to assessment, including cumulative assessment and consideration of dose response, deterrence function and Effective Deterrent Ranges (EDRs).
03 September 2025	NatureScot	Marine Mammals	Advice received by email confirming the revised deterrence function approach discussed can be applied in the assessment, both for porpoise and dolphin species.
09 September 2025	NatureScot and MD-LOT	Offshore Ornithology	Meeting to discuss ongoing development of proposed compensatory measures for predicted adverse impacts to ornithological features.

3.2 Request for Additional Information

3.2.1.1 The Applicant received the formal Request for Additional Information from MD-LOT on 17 July 2025, in accordance with the following:

- Regulation 21 of the Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017;
- Regulation 14 of the Marine Works (Environmental Impact Assessment) Regulations 2007; and
- Regulation 19 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

3.2.1.2 The Request for Additional Information is necessary for reaching a reasoned conclusion on the likely significance of effects of the Proposed Development (Offshore) on the environment. MD-LOT also raised several points of clarification arising from the consultation responses received.

3.2.1.3 The details on the Request for Additional Information, in addition to signposting to where this information is contained within this Addendum, is presented in Table 3-2.

3.2.1.4 This document is accompanied by the Gap Analysis spreadsheet, which has been submitted to MD-LOT and contains the Applicant's responses to individual consultee representations.

Table 3-2: Summary of Request for Additional Information from MD-LOT.

Technical Topic	Point Raised	Section or Appendix of Addendum Where Addressed
Offshore Ornithology	MD-LOT requires that the following must be submitted as additional information on the basis of the NatureScot representation dated 27 March 2025: ▪ In relation to the Report to Inform Appropriate Assessment ("RIAA"), updated screening and apportioning, with subsequent consideration of the requirement for further Population Viability Analysis ("PVA") is required in line with NatureScot guidance. ▪ An updated assessment of disturbance and displacement from vessels within the Moray Firth SPA is required. Further information should be included on the methodology and worst-case scenario used for the assessment of vessel disturbance to the qualifying species of the Moray Firth SPA. The assessment must be completed for each of the qualifying species of the SPA and information should be included on the potential impacts of disturbance on the ability of the qualifying species to access prey supporting habitat. ▪ A PVA assessment is required with regards to collision risk for great black backed gull at Copinsay SPA and Hoy SPA, for both project alone and in combination with other projects. ▪ A qualitative assessment for the cumulative assessment of distributional responses during construction and decommissioning for ornithology. This is required in line with the NatureScot representation dated 25 June 2025. ▪ Cumulative and in-combination assessments have not been conducted for Caledonia North or Caledonia South individually within the EIA and RIAA, these are required to be submitted.	See Section 5.6 and the following appendices: ▪ Volume 8, Appendix 4: Ornithology Additional Information Report (Caledonia OWF); ▪ Volume 8, Appendix 5: Ornithology Additional Information Report (Caledonia North); ▪ Volume 8, Appendix 6: Ornithology Additional Information Report (Caledonia South); ▪ Volume 8, Appendix 7: Ornithology HRA Screening (Caledonia OWF); ▪ Volume 8, Appendix 8: Ornithology HRA Screening (Caledonia North); ▪ Volume 8, Appendix 9: Ornithology HRA Screening (Caledonia South); ▪ Volume 8, Appendix 10: Ornithology Apportioning Technical Report (Caledonia OWF); ▪ Volume 8, Appendix 11: Ornithology Apportioning Technical Report (Caledonia North); ▪ Volume 8, Appendix 12: Ornithology Apportioning Technical Report (Caledonia South); ▪ Volume 8, Appendix 13: Ornithology Apportioning Results (Caledonia OWF); ▪ Volume 8, Appendix 14: Ornithology Apportioning Results (Caledonia North); ▪ Volume 8, Appendix 15: Ornithology Apportioning Results (Caledonia South); ▪ Volume 8, Appendix 16: Ornithology PVA Technical Report (Caledonia OWF); ▪ Volume 8, Appendix 17: Ornithology PVA Technical Report (Caledonia North);

Technical Topic	Point Raised	Section or Appendix of Addendum Where Addressed
		▪ Volume 8, Appendix 18: Ornithology PVA Technical Report (Caledonia South); ▪ Volume 8, Appendix 19: Moray Firth SPA Assessment (Disturbance/Displacement) for Vessel Traffic (O&M); ▪ Volume 8, Appendix 20: Moray Firth SPA Assessment (Disturbance/Displacement) for Vessel Traffic (Construction); and ▪ Volume 8, Appendix 21: Offshore Ornithology Distributional Responses Technical Report – Review of Relevant Evidence.
Offshore Ornithology	MD-LOT requires that the following should be clarified on the basis of the NatureScot representation dated 27 March 2025: ▪ With regards to stochastic Collision Risk Modelling (CRM), the Applicant has used 0 for the stochastic Nocturnal Activity Factor (NAF) for great skua without justification. NatureScot advised that the stochastic NAF for great skua should be 0.125 and request clarification of this approach and if necessary, a reassessment. ▪ With regards to the potential impact of 'distributional responses – construction and associated vessel traffic within the offshore Export Cable Corridor', NatureScot request clarification regarding how frequent the vessel movements will be within a given timeframe, whether this would be compressed into a short construction window or take place over the entire construction period of the project and how this might differ to existing vessel traffic volumes.	See Section 5.6.1 and the following appendices: ▪ Volume 8, Appendix 4: Ornithology Additional Information Report (Caledonia OWF); ▪ Volume 8, Appendix 5: Ornithology Additional Information Report (Caledonia North); ▪ Volume 8, Appendix 6: Ornithology Additional Information Report (Caledonia South); ▪ Volume 8, Appendix 19: Moray Firth SPA Assessment (Disturbance/Displacement) for Vessel Traffic (O&M); and ▪ Volume 8, Appendix 20: Moray Firth SPA Assessment (Disturbance/Displacement) for Vessel Traffic (Construction).

Technical Topic	Point Raised	Section or Appendix of Addendum Where Addressed
Southern Trench Nature Conservation Marine Protected Area (NCMPA) Assessment	MD-LOT requires that the following must be submitted as additional information on the basis of the NatureScot representation: ▪ Further assessment regarding predicted cumulative impact of storm wave height on geodiversity features and consideration of coastal receptors including SSSIs designated for coastal geomorphology and/or habitats. ▪ Unless a justification can be provided as to why the burrowed mud feature of the NCMPA has not been included, MD-LOT also require the potential impacts of permanent habitat loss on this feature be assessed, both for project alone and cumulative assessments.	See Section 5.2 and 5.3, and the following appendix. ▪ Volume 8, Appendix 33: Marine Protected Area Assessment Update for Burrowed Mud.
Marine and Coastal Processes	MD-LOT requires that the following must be submitted as additional information on the basis of the MD-SEDD advice dated 27 February 2025: ▪ MD-SEDD has advised that the EIA Report does not adequately describe the baseline water column processes or perform sufficient impact assessment on seasonal stratification which must be rectified. In particular the following must be undertaken: o MD-SEDD are concerned that the EIA Report suggests that the region seasonally stratifies and advise that the applicant provides clarity or more evidence to characterise the baseline water column structure to confirm such statements. If the region is indeed shown to seasonally stratify (as the MORL data appears to report) MD-SEDD advise that an impact assessment should be carried out.	See Section 5.2 and the following appendix: ▪ Volume 8, Appendix 1: Marine and Coastal Processes Stratification Technical Note.

Technical Topic	Point Raised	Section or Appendix of Addendum Where Addressed
Shadow Derogation Case	MD-LOT highlights the advice provided by NatureScot in relation to the shadow derogation case as part of the Habitats Regulation Appraisal ("HRA") process. NatureScot has advised that there is insufficient information to have confidence that the proposed measures are likely to compensate for the predicted impacts of the proposal to seabirds. RSPB has also raised concerns that compensatory measures are not considered appropriate or sufficient as currently proposed. MD-LOT therefore advises that without pre-determining the outcome of any Appropriate Assessment under the HRA process the applicant give consideration to this advice and may want to submit an updated shadow derogation case for consideration at this stage.	See Section 5.6.2 and the following appendices: ▪ Volume 8, Appendix 29: Addendum to the Caledonia North and Caledonia South Compensation Plans; and ▪ Volume 8, Appendix 30: Refined Outline Implementation and Monitoring Plan.
Marine Mammals	MD-LOT highlights the advice provided by NatureScot in relation to marine mammals which was unable to conclude no adverse effect on site integrity for the Moray Firth SAC with respect to behavioural disturbance from pile driving during construction of Caledonia North, Caledonia South alone and collectively (and therefore also in-combination with other plans and projects), despite the RIAA concluding no adverse effect on site integrity. MD-LOT do not currently consider that the comments include a request for additional information and that these can be addressed through the MD-LOT gap analysis template. However, MD-LOT is aware that the applicant is currently in discussions with relevant stakeholders regarding the advice provided by NatureScot in relation to Marine Mammals and potential further assessment. Should the applicant wish to submit outputs from such discussions in support of the application, MD-LOT may consider this as additional information, under the relevant EIA Regulations. In this scenario, publication and consultation requirements must be	See Section 5.5 and the following appendices: ▪ Volume 8, Appendix 22: Marine Mammals Clarifications and Piling Re-Assessment Methodology; ▪ Volume 8, Appendix 23: Marine Mammals iPCoD Results (Caledonia OWF); ▪ Volume 8, Appendix 24: Marine Mammals iPCoD Results (Caledonia North); ▪ Volume 8, Appendix 25: Marine Mammals iPCoD Results (Caledonia South); ▪ Volume 8, Appendix 26: Marine Mammals Results and Discussion; ▪ Volume 8, Appendix 27: Marine Mammals Cumulative Offshore Export Cable Corridor Vessel Disturbance Technical Note; and ▪ Volume 8, Appendix 28: Marine Mammals RIAA Updates.

Technical Topic	Point Raised	Section or Appendix of Addendum Where Addressed
	followed. If additional information is submitted, alongside that which has been formally requested by MD-LOT (in this email), this can be considered together. However, if there is a distinction in timescales of submission, separate publication and consultation requirements will apply.	

4 Proposed Development (Offshore) Description

4.1 Overview

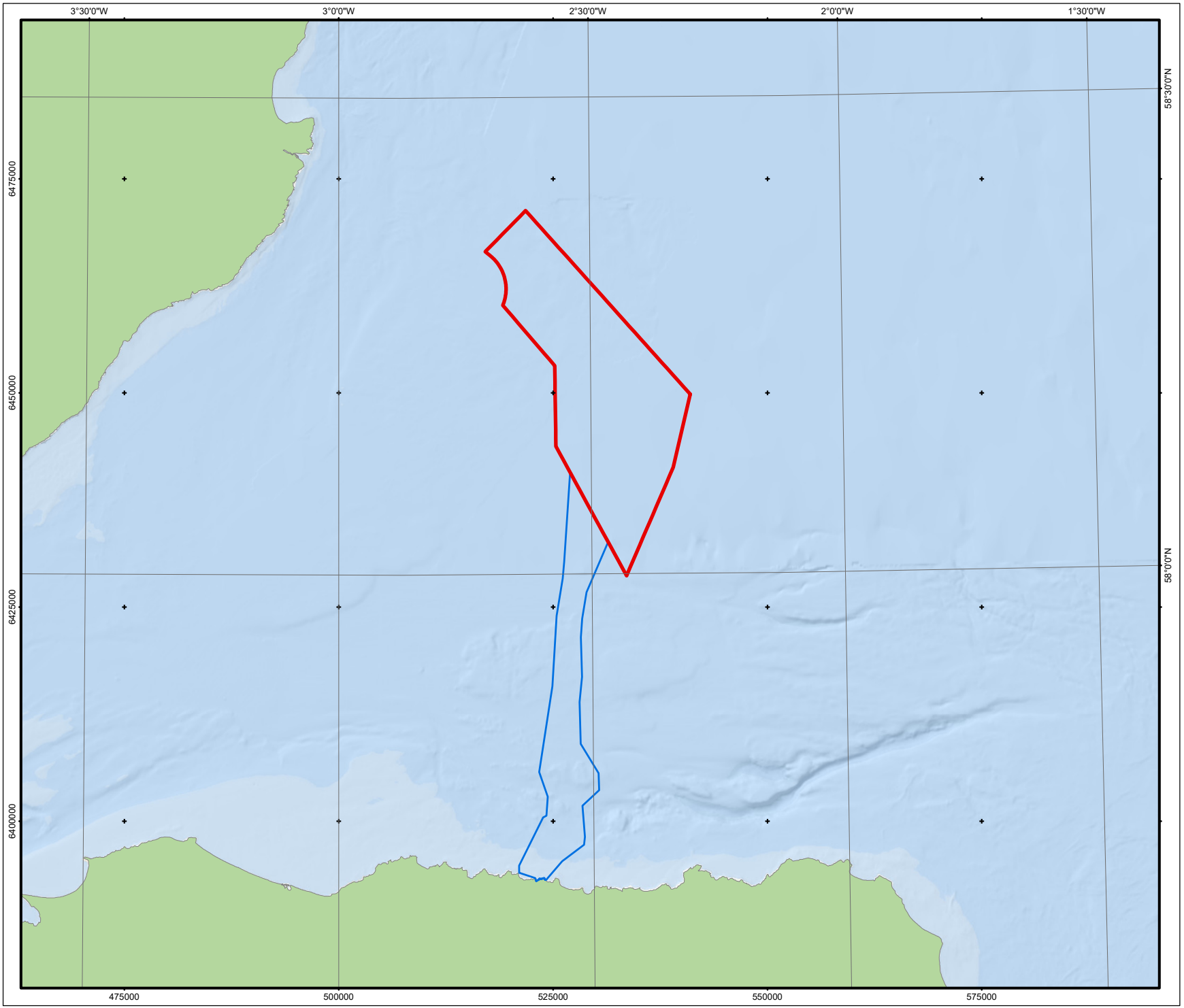
4.1.1.1 The Array Area of the Proposed Development (Offshore), referred to as the Caledonia OWF, is located within the NE4 Option Agreement Area and is approximately 423km^2 in size. The Proposed Development (Offshore) is located in the Moray Firth in the North Sea, with the Array Area approximately 22km off the coast of Wick, Highlands and 38km off the coast of Banff, Aberdeenshire. The Landfall Site is located to the west of Whitehills on the Aberdeenshire coast.

4.1.1.2 The Proposed Development (Offshore) consists of the various offshore infrastructure within the Caledonia OWF (WTGs, foundations, Offshore Substation Platforms (OSPs), inter-array cables and interconnector cables), and the Offshore Export Cable Corridor (OECC) between the Caledonia OWF and Landfall Site (Figure 4–1).

4.1.1.3 Caledonia North consists of the Array Area (referred to as the 'Caledonia North Site') and the OECC (referred to as the 'Caledonia North OECC'). The Caledonia North Site is approximately 218.5km^2 in size, and the Caledonia North OECC is approximately 390.8km^2 in size (Figure 4–2). The Caledonia North Site is situated in relatively shallow waters, and therefore it will contain bottom-fixed WTG foundation technology.

4.1.1.4 Caledonia South consists of the Array Area (referred to as the 'Caledonia South Site') and the OECC (referred to as the 'Caledonia South OECC'). The Caledonia South Site is approximately 204.5km^2 in size, and the Caledonia South OECC is approximately 221.3km^2 in size (Figure 4–3). The Caledonia South Site is generally deeper than the Caledonia North Site, and it will contain either bottom-fixed WTG foundation technology only, or a combination of bottom-fixed and floating WTG foundation technology.

4.1.1.5 Further details on the design envelope can be found in Volume 1, Chapter 3: Proposed Development (Offshore) Description of the EIAR. An outline description of the Proposed Development (Offshore) is presented in Table 4-1.



Caledonia OWF

Offshore Export Cable Corridor

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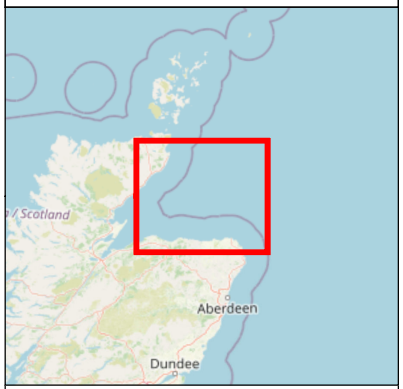


0 5 10 15 20 km

REV	DATE	DOC STATUS	ORIGIN	REVIEW	APP
01	29/09/2025	Approved	EV	BB	DH

CALEDONIA Offshore Wind Farm

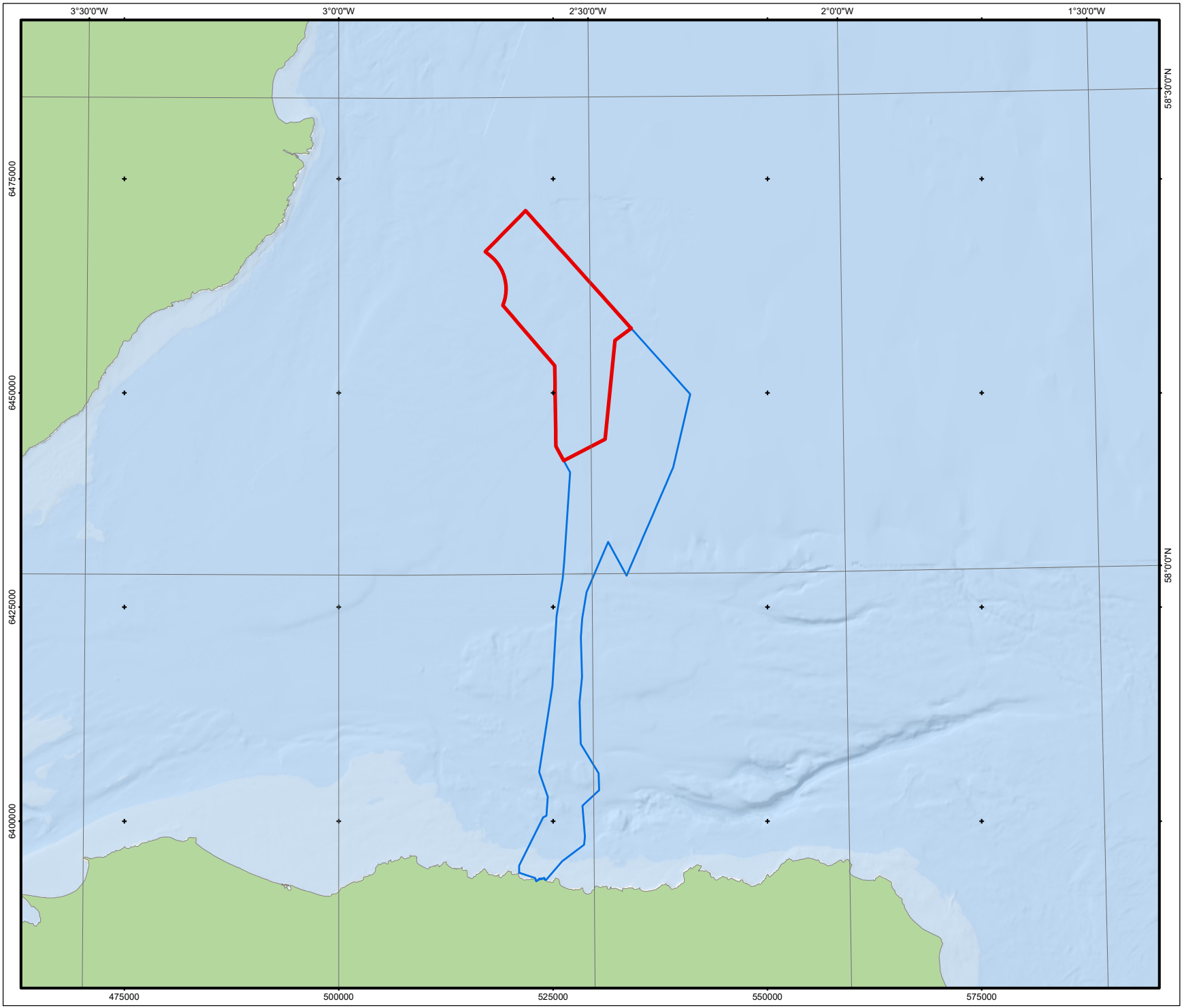
GoBe APEM Group

GEODETIC PARAMETERS
WGS 84 / UTM zone 30N (EPSG: 32630)

DRAWING TITLE

Figure 4-1: Location of the Proposed Development (Offshore), including the Caledonia OWF and the Caledonia Offshore Export Cable Corridor (OECC)

STATUS	SCALE	
Approved	1:600,000	
DRAWING NUMBER	SHEET NO	REV
N/A	01 of 01	N/A



Caledonia North Site

Caledonia North Offshore Export Cable Corridor

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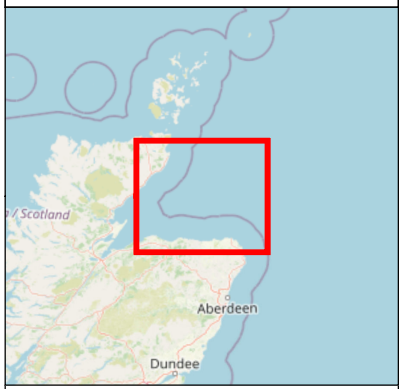


0 5 10 15 20 km

REV	DATE	DOC STATUS	ORIGIN	REVIEW	APP
01	29/09/2025	Approved	EV	BB	DH

CALEDONIA Offshore Wind Farm

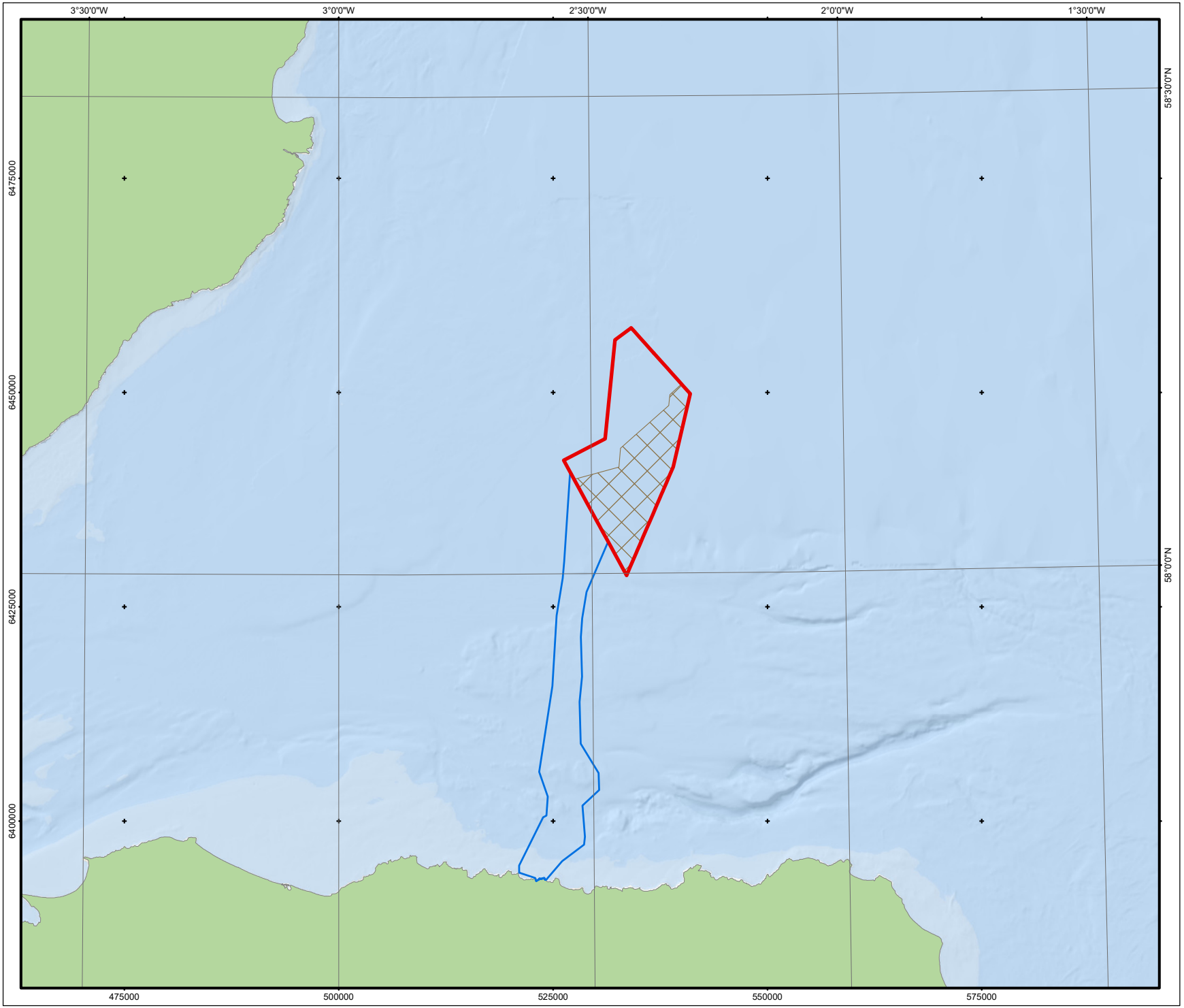
GoBe APEM Group

GEODETIC PARAMETERS
WGS 84 / UTM zone 30N (EPSG: 32630)

DRAWING TITLE

Figure 4-2: Location of Caledonia North, including the Caledonia North Site and the Caledonia North Offshore Export Cable Corridor (OECC)

STATUS	SCALE	
Approved	1:600,000	
DRAWING NUMBER	SHEET NO	REV
N/A	01 of 01	N/A



Caledonia South Site

Caledonia South Offshore Export Cable Corridor

Area Suitable for Floating WTG

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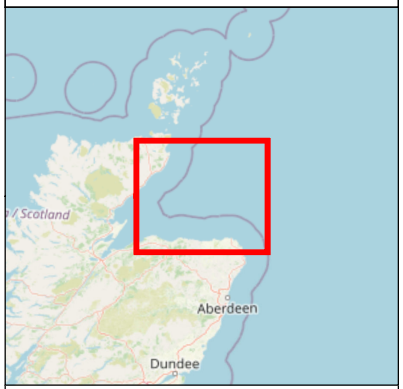

0 5 10 15 20 km

REV	DATE	DOC STATUS	ORIGIN	REVIEW	APP
01	29/09/2025	Approved	EV	BB	DH

CALEDONIA Offshore Wind Farm

GoBe APEM Group

GEODETIC PARAMETERS
WGS 84 / UTM zone 30N (EPSG: 32630)

DRAWING TITLE

Figure 4-3: Location of Caledonia South, including the Caledonia South Site and the Caledonia South Offshore Export Cable Corridor (OECC)

STATUS	SCALE	
Approved	1:600,000	
DRAWING NUMBER	SHEET NO	REV
N/A	01 of 01	N/A

Table 4-1: Outline description of the Proposed Development (Offshore).

Design Parameter	Design Envelope		
	Caledonia North	Caledonia South	Proposed Development (Offshore)
WTG foundation type	Bottom-fixed	Bottom-fixed; or Bottom-fixed and floating	Bottom-fixed; or Bottom-fixed and floating
Maximum number of WTGs	77	78	140
WTG foundation technology composition – Bottom-fixed	Up to 77	Up to 78 (bottom-fixed only; assumes no floating component)	Up to 140 (bottom-fixed only; assumes no floating component)
WTG foundation technology composition – floating	Not applicable (no floating component)	Up to 39 (assumes remaining composition bottom-fixed up to a combined total of 78)	Up to 39 (assumes remaining composition bottom-fixed up to a combined total of 140)
Number of Offshore Substation Platforms (OSPs)	2	2	4
OSP foundation type	Bottom-fixed	Bottom-fixed	Bottom-fixed
Transmission system	High Voltage Alternating Current (HVAC)	HVAC	HVAC
Number of interconnector cables	1	1	2
Maximum length of interconnector cables (km)	30	30	60
Maximum number of inter-array cables	77	78	140
Maximum length of inter-array cables (total) (km)	360	365 for bottom-fixed foundations; up to 182.5 for floating foundations (assumes combined with bottom-fixed foundations up to a total of 365)	655 for bottom-fixed foundations; up to 182.5 for floating foundations (assumes combined with bottom-fixed foundations up to a total of 655)
Number of export cables	2	2	4
Maximum length of export cables (total) (km)	180	150	330

4.2 Amendments to Proposed Development (Offshore) Description

4.2.1.1 The Applicant has revised parameters associated with the Proposed Development (Offshore)'s infrastructure, primarily infrastructure installation parameters associated with potential underwater noise impacts on marine mammals. The refinement to parameters results in a no-worse effect across all the various receptors and, therefore, no further assessment is undertaken apart from marine mammals (see Section 5.5 and associated appendices for further details).

4.2.1.2 These amendments to the Proposed Development (Offshore) Description are presented in Table 4-2, and are discussed in further detail in Section 5.5.

Table 4-2: Amended Project Parameters.

Design Parameter	EIAR	Addendum	Justification
Number of anchor piles per tension-leg platform	18	6	During a workshop with NatureScot and MD-LOT in June 2025 (Table 3-1), NatureScot noted it was concerned with the disturbance to bottlenose dolphin as a result of 515 days of piling that was proposed. Therefore, NatureScot was not in a position to conclusively rule out significant adverse effects on bottlenose dolphin of the Moray Firth SAC. Further technical and commercial refinement of anchor and piling assumptions has secured a total reduction in anchors from 18 to 6 per tension-leg platform foundation within the design envelope. This has also resulted in a reduction of piling days by 34% for the Caledonia OWF to 339 piling days, which includes a reduction of piling days within the Caledonia South Site to 275 piling days. This refinement in piling days has been reflected in the marine mammals section of the Addendum (see Section 5.5 and Appendices 22 to 26).

5 Environmental Effects

5.1 Overview

5.1.1.1 This section of the Addendum presents a summary of the anticipated environmental effects in relation to the refinement of the Design Envelope and outputs from requests for additional information. The Addendum is accompanied by technical appendices (Table 5-1), which are signposted in the relevant sections of this document.

Table 5-1: Technical appendices and their relevant technical topic.

Technical Topic	Appendix Number and Title
Marine and Coastal Processes	Volume 8, Appendix 1: Marine and Coastal Processes Stratification Technical Note
Benthic Subtidal and Intertidal Ecology	Volume 8, Appendix 2: Ecosystem Level Effects
Fish and Shellfish Ecology	Volume 8, Appendix 3: Herring Additional Information Note
Offshore Ornithology	Volume 8, Appendix 4: Ornithology Additional Information Report (Caledonia OWF)
	Volume 8, Appendix 5: Ornithology Additional Information Report (Caledonia North)
	Volume 8, Appendix 6: Ornithology Additional Information Report (Caledonia South)
	Volume 8, Appendix 7: Ornithology HRA Screening (Caledonia OWF)
	Volume 8, Appendix 8: Ornithology HRA Screening (Caledonia North)
	Volume 8, Appendix 9: Ornithology HRA Screening (Caledonia South)
	Volume 8, Appendix 10: Ornithology Apportioning Technical Report (Caledonia OWF)
	Volume 8, Appendix 11: Ornithology Apportioning Technical Report (Caledonia North)
	Volume 8, Appendix 12: Ornithology Apportioning Technical Report (Caledonia South)
	Volume 8, Appendix 13: Ornithology Apportioning Results (Caledonia OWF)

Technical Topic	Appendix Number and Title
	Volume 8, Appendix 14: Ornithology Apportioning Results (Caledonia North)
	Volume 8, Appendix 15: Ornithology Apportioning Results (Caledonia South)
	Volume 8, Appendix 16: Ornithology PVA Technical Report (Caledonia OWF)
	Volume 8, Appendix 17: Ornithology PVA Technical Report (Caledonia North)
	Volume 8, Appendix 18: Ornithology PVA Technical Report (Caledonia South)
	Volume 8, Appendix 19: Moray Firth SPA Assessment (Disturbance/Displacement) for Vessel Traffic (O&M)
	Volume 8, Appendix 20: Moray Firth SPA Assessment (Disturbance/Displacement) for Vessel Traffic (Construction)
	Volume 8, Appendix 21: Review of Relevant Evidence
Marine Mammals	Volume 8, Appendix 22: Marine Mammals Clarifications and Piling Re-Assessment Methodology
	Volume 8, Appendix 23: Marine Mammals iPCoD Results (Caledonia OWF)
	Volume 8, Appendix 24: Marine Mammals iPCoD Results (Caledonia North)
	Volume 8, Appendix 25: Marine Mammals iPCoD Results (Caledonia South)
	Volume 8, Appendix 26: Marine Mammals Results and Discussion
	Volume 8, Appendix 27: Marine Mammals Cumulative Offshore Export Cable Corridor Vessel Disturbance Technical Note; and
	Volume 8, Appendix 28: Marine Mammals RIAA Updates

Technical Topic	Appendix Number and Title
HRA/Shadow Derogation and supporting documents, plus Nature Conservation Marine Protected Area (NCMPA)	Volume 8, Appendix 29: Addendum to the Caledonia North and Caledonia South Compensation Plans
	Volume 8, Appendix 30: Refined Outline Implementation and Monitoring Plan
	Volume 8, Appendix 31: Moray Firth Special Protection Area Long-Term Vessel Traffic Assessment
	Volume 8, Appendix 32: National Trust for Scotland Letter of Intent
	Volume 8, Appendix 33: Marine Protected Area Assessment Update for Burrowed Mud
	Volume 8, Appendix 34: East Caithness Cliffs Site Assessment Report (Confidential)

5.2 Marine and Coastal Processes

5.2.1 EIAR

5.2.1.1 The Applicant received a request for further information from MD-LOT based on the Marine Directorate - Science Evidence Data and Digital (MD-SEDD) response to the consent applications. This highlighted concerns around not adequately describing the baseline water column processes or performing sufficient impact assessment on seasonal stratification, as described in Table 3-2. In particular, MD-SEDD expressed concerns that the EIAR suggests that the region seasonally stratifies and advised that the Applicant should provide more evidence to characterise the baseline water column structure to confirm such statements. If the region is shown to seasonally stratify, MD-SEDD advised that an impact assessment should be carried out.

5.2.1.2 As requested by MD-LOT, the Applicant has provided a detailed description of the water column processes (i.e., stratification and frontal features) within Volume 8, Appendix 1: Marine and Coastal Processes Stratification Technical Note and can be summarised as follows:

- Naturally occurring stratification occurs within the Moray Firth due to seasonal heating of the upper water column, and vertical fronts are also observed along the southern coast of the Moray Firth between regions of slight freshwater influence coming from the inner Moray Firth (Adams and Martin, 1986[5]; Miller *et al.*, 2014[6]);
- Within the Caledonia OWF, data, averaged between 2014 and 2024, from E.U. Copernicus Marine Service Information (CMEMS) show a

difference between surface and bottom temperature between March and September of 3.5°C maximum within the Array Area, whereas salinity remains constant throughout the year with value of 34.45 ± 0.15PSU (CMEMS, 2025[7]);

- Stratification within the Caledonia OECC was shown to be of two types. Thermal stratification in the north and centre is present during spring and summer months with differences between surface and bottom temperature reaching a maximum of 5°C, whereas haline stratification occurs in the south of the Caledonia OECC with salinity varying from 33 PSU during winter to 34 PSU during summer (CMEMS, 2025[7]); and
- The variation of salinity along the Caledonia OECC is also an indicator of frontal feature between low salinity water, closer to the shore, and high salinity water further offshore.

5.2.1.3 Based on the above (paragraph 5.2.1.2), the Applicant is confident to conclude that the Proposed Development (Offshore) is located within an area of seasonally stratified waters, with thermal stratification within the Caledonia OWF and the north of the Caledonia OECC, and haline stratification in the south of the Caledonia OECC. However, the Applicant highlights some limitations from the data used in Volume 8, Appendix 1: Marine and Coastal Processes Stratification Technical Note as follows:

- The water depth used for the mixed layer water depth results does not coincide with the high-resolution bathymetry survey carried out within the Proposed Development (Offshore) at the locations presented (EMODnet, 2024[8]);
- CMEMS data used a coarse grid resolution (7km*7km), which is not accurate for water depth less than 10m, such as Landfall, and consequently it was not presented within this report to avoid any misinterpretation;
- The resolution of CMEMS grid also does not allow the Applicant to conclude on the position of the front and its migration from intra- and inter-annual perspectives; and
- The strength and extend of stratification are not provided by the CMEMS dataset, which implies that the energy to maintain or to erode stratification cannot be determined.

5.2.1.4 Based on the evidence of the seasonally stratified waters set out above and recommendations from MD-SEDD, an impact assessment of the Proposed Development (Offshore) on the modifications to water column structure and processes (mixing and stratification) has been carried out. Modifications to the water column structure and mixing processes, such as the formation and duration of stratification and frontal features, may result in changes to the associated productivity (Sharples *et al.*, 2020[9]). For all receptors (seasonally stratified waters and the Southern Trench NCMPA), the overall effect of the Proposed Development (Offshore) on water column

structure and processes (mixing and stratification) during the operation and maintenance phase is considered to be **Minor** and **Not Significant in Environmental Impact Assessment (EIA) terms**.

5.2.2 NCMPA

5.2.2.1 The Applicant received a request for further information from MD-LOT based on the NatureScot response to the NCMPA assessment, as set out in Application Document 9: Marine Protected Area Assessment. NatureScot's representation highlighted the need for further assessment regarding the predicted cumulative impact of storm wave height on geodiversity features and consideration of coastal receptors including Sites of Special Scientific Interests (SSSIs) designated for coastal geomorphology and/or habitats, as described in Table 3-2.

5.2.2.2 The Applicant highlights that the cumulative modification to the wave and tidal regime and associated potential impacts to sediment transport during the operational phase was assessed within Volume 2, Chapter 2: Marine and Coastal Processes, and detailed results of the numerical model are developed in Volume 7B, Appendix 2-2: Marine and Coastal Processes Numerical Modelling Report. Notably, the cumulative impact associated to storm waves (i.e., waves with a return period of 1:1, 1:10 and 1:50 year Annual Recurrence Interval (ARI)), from numerical modelling, is presented in paragraph 2.8.3.2, Cullen to Stake Ness SSSI is assessed in paragraph 2.8.3.7, and Southern Trench NCMPA is assessed in paragraph 2.8.3.9 of Volume 2, Chapter 2: Marine and Coastal Processes.

5.2.2.3 The geodiversity features within the NCMPA are the Quaternary of Scotland (i.e., subglacial tunnels valley and moraines) and Submarine Mass Movement, for which the assessment should focus on activities which may significantly alter water flow characteristics (NatureScot, 2025[10]). The Applicant highlights that, based on NatureScot (2025[10]), the assessment of water flow characteristics mentions only tidal current, which has been shown to remain 1.5km from the Caledonia OWF and, consequently, will not have impact on the geodiversity features within the Southern Trench NCMPA and coastal receptors, including Cullen to Stake Ness SSSI (Volume 2, Chapter 2: Marine and Coastal Processes and Volume 7B, Appendix 2-2: Marine and Coastal Processes Numerical Modelling Report). Nevertheless, the Applicant assesses the change of storm waves, as requested by MD-LOT, on the geodiversity features within the Southern Trench NCMPA and Cullen to Stake Ness SSSI below.

5.2.2.4 Numerical modelling results on based on cumulative impact of the Proposed Development (Offshore) in-combination with other nearby OWFs (including respective OECCs) within the Southern Trench NCMPA and Cullen to Stake Ness SSSI can be summarised as follow:

- The significant wave height will be reduced by 1 to 2% within the Southern Trench NCMPA and coastal receptors including Cullen to Stake Ness SSSI;
- Impact on wave height will be present within the Southern Trench NCMPA when waves are originating from the north-west, north and north-east; and
- Impact on wave height will be present within Cullen to Stake Ness SSSI when waves are coming from the north and north-east.

5.2.2.5 The wave reduction simulated represent a maximum of 0.17m[i], which is small compared to the size of storm waves (4m 1-in-1 ARI to 8.6m 1-in-50 ARI) and no significant changes of impact on sediment transport will be observed. Furthermore, the storm waves simulated are rare, which means that any potential impact will be infrequent and minimal in duration for receptors located along the coast and within the designated sites.

5.2.2.6 Furthermore, the sensitivity of geodiversity features within the Southern Trench NCMPA are considered as not sensitive for subglacial tunnel valleys and medium sensitivity for both moraines and Submarine Mass Movement (NatureScot, 2025[10]). The Applicant highlights that the sensitivity of the Southern Trench NCMPA has been assessed as high and consequently is more conservative than advised by NatureScot (2025[10]).

5.2.2.7 The designated features related to Marine and Coastal Processes of the Cullen to Stake Ness SSSI are Dalradian Supergroup rocks and Saltmarshes (Scottish Natural Heritage, 2011[11]). Dalradian Supergroup rocks and saltmarshes are mostly impacted by development activities, such as cable installation, which can alter the features due to habitat loss and direct disturbance, which is not the case concerning the cumulative impact of storm wave height (Natural England and Joint Nature Conservation Committee (JNCC), 2019[12]). In the case of storm waves modification by the Proposed Development (Offshore), the impact will potentially reduce the significant wave height and consequently the associated energy leading to a potential diminution of coastal erosion, which in turn will not be detrimental for these two features.

5.2.2.8 Based on the above, the Applicant is confident on the conclusions presented within Volume 2, Chapter 2: Marine and Coastal Processes that the overall effects of cumulative modifications to the wave and tidal regime and associated potential impacts to the sediment transport regime during the operational phase are **Not Significant in EIA terms** when considering the geodiversity features within the Southern Trench NCMPA and coastal receptors including Cullen to Stake Ness SSSI.

[i] Significant wave height reduction of 2% for a wave height of 8.6m for 1-in-50 year ARI event.

5.3 Benthic Subtidal and Intertidal Ecology

5.3.1 EIAR

5.3.1.1 The Applicant did not receive a specific request for additional information from MD-LOT regarding benthic subtidal and intertidal ecology; however, NatureScot raised a number of points around the need for an approach to the assessment to understand impacts at an ecosystem level across trophic levels. NatureScot suggested that ecosystem level effects should be considered further as part of post-consent plans in respect of mitigation.

5.3.1.2 Subsequently, an Ecosystem Level Effects report has been provided as an Appendix to this Addendum (Volume 8, Appendix 2: Ecosystem Level Effects).

5.3.1.3 The appendix draws on current literature to establish a baseline of the physical environment, primary producers, prey species and top predators. The baseline supported an ecosystem level assessment of the potential positive and negative impacts of the Proposed Development (Offshore).

5.3.1.4 The assessment concluded that the Proposed Development (Offshore) is unlikely to result in significant negative ecosystem level effects, although highlighted the potential for localised positive ecological benefits to arise, such as enhancement of local biodiversity, support for prey species populations, and contribution to the overall productivity of marine ecosystems.

5.3.2 NCMPA

5.3.2.1 The Applicant received a request for further information from MD-LOT based on the NatureScot response which highlighted that unless a justification can be provided as to why the burrowed mud feature of the Southern Trench NCMPA has not been included, then MD-LOT also require the potential impacts of permanent habitat loss on this feature to be assessed, both for the Proposed Development (Offshore) alone and cumulative assessments (Table 3-2).

5.3.2.2 The Applicant has completed the assessment for permanent habitat loss of the burrowed mud habitat of the Southern Trench NCMPA, both alone and cumulatively with other plans and projects. The full assessment is provided as an Appendix to this Addendum (Volume 8, Appendix 33: Marine Protected Area Assessment Update for Burrowed Mud).

5.3.2.3 The assessment calculated the total possible area of burrowed mud in the vicinity to the Proposed Development (Offshore), by using the area of habitat suitable for *Nephrops* plus an additional precautionary area, as burrowed mud point data was also present within that area. The assessment assumed that, as there is currently no indication of where

cable protection may ultimately be required, that on a precautionary basis, all of the cable protection was required within the areas that could support burrowed mud.

5.3.2.4 Whilst the assessment considers the impacts of the placement of permanent cable protection, due to the duration of the Proposed Development (Offshore), the habitat is likely to recover, albeit slowly, following decommissioning, should the cable protection be removed. As such, the use of cable protection technology will be investigated as part of the Cable Plan and deployed within the Southern Trench NCMPA if possible.

5.3.2.5 Overall, the assessment concluded that there is **no risk of hinderance in relation to burrowed muds of the Southern Trench NCMPA alone or cumulatively** and, therefore, it is considered that there is no requirement for any conditions to be applied to the activities related to the Proposed Development (Offshore).

5.4 Fish and Shellfish Ecology

5.4.1 EIAR

5.4.1.1 The Applicant did not receive a specific request for additional information from MD-LOT regarding fish and shellfish ecology; however, NatureScot raised concerns in its response to the EIAR regarding the significance of the potential cumulative impacts on herring and sandeel. NatureScot welcomed the commitment of an Offshore Environmental Management Plan (EMP) and a Project Environmental Monitoring Programme (PEMP), and provided a number of aspects that were recommend to be included in the plans. NatureScot noted that they disagreed with the conclusions reached regarding impacts to spawning habitat regarding sandeel and herring. It is noted that, while more applicable to commercial fisheries as opposed to Fish and Shellfish Ecology, the representation made by the Scottish Fishermen's Federation highlights the importance of the Caledonia OWF for North Sea herring.

5.4.1.2 The Applicant has produced an additional report which provides some additional information regarding the potential for impact to herring. The note is provided as an Appendix to this Addendum (Volume 8, Appendix 3: Herring Additional Information Note).

5.4.1.3 The appendix includes two figures that were incorrectly drawn within the EIAR submitted in November 2024. Figures 5-15 and 5-19 in Volumes 2, 3 and 4, Chapter 5: Fish and Shellfish Ecology of EIAR contained an error in the mapped cumulative Sound Exposure Level (SEL_{cum}) contours for mortality and potential mortal injury and recoverable injury for herring, showing the 219 decibel (dB) and 216 dB contours instead of the 207 dB and 203 dB contours, respectively. Revised figures showing the correct

contours have been produced and included in Volume 8, Appendix 3: Herring Additional Information Note (Figure 3-2 and Figure 3-3). Whilst the areas of each of these contours does increase slightly, this does not impact the magnitude as described in the original assessment and detailed within this appendix.

5.4.1.4 Additional figures have also been provided, showing the yearly differences in the distribution of herring larval abundance, as represented by the International Herring Larval Surveys (IHLS).

5.4.1.5 The appendix does not alter the original assessment conclusions, noting there are no significant effects predicted for herring as a result of the Proposed Development (Offshore) both alone or in-combination with other plans and projects.

5.4.1.6 Regarding sandeel, the Applicant has responded to some specific comments regarding sandeel within the Gap Analysis submitted to MD-LOT. In summary, the Applicant does not consider there likely to be significant effects on sandeel as a result of the Proposed Development (Offshore) alone or in-combination with other plans or projects. However, as requested, the Applicant will complete pre-construction surveys which will include some sediment analysis (Particle Size Analysis). Where this identifies preferred habitat for sandeel, this habitat will be avoided, where possible.

5.4.1.7 Notwithstanding the above, the Applicant is committed to the development of, and adherence to, a Piling Strategy, which will detail the method of pile installation and associated noise levels and soft-start and ramp up procedures during piling activities. Moreover, as set out in Volume 7, Appendices 8 and 9 of the EIAR, the Applicant is committed to the development of a PEMP, which will set out commitments to environmental monitoring in pre-, during and post- construction phases of Caledonia North and Caledonia South. The PEMP will be developed post-consent once further detailed design work has been completed for Caledonia North and Caledonia South and post-consent requirements and consent conditions are agreed. The PEMP will be prepared in consultation with key stakeholders for submission to, and approval by MD-LOT prior to the commencement of construction.

5.4.1.8 Whilst the Applicant considers that no additional mitigation is required for Atlantic herring, sandeel or other fishes, the Applicant would welcome discussion post-consent regarding what strategic research and/or monitoring relating to fish would be most beneficial to support.

5.5 Marine Mammals

5.5.1 EIAR

5.5.1.1 MD-LOT noted that it does not currently consider that the marine mammals representations include the need to request additional information, and thus it was confirmed that these can be addressed through Gap Analysis. However, due to progressing discussions with relevant stakeholders regarding the advice provided by NatureScot in relation to marine mammals and potential further assessment, MD-LOT welcomed the Applicant to submit outputs from such discussions in support of the consent applications, and it may consider this as additional information, under the relevant Regulations.

5.5.1.2 The Applicant met with MD-LOT and NatureScot in June 2025 to provide project updates and discuss MD-LOT and NatureScot's representations in more detail (Table 3-2). The Applicant met with MD-LOT and NatureScot again in August and September 2025 to provide further project updates and to inform the stakeholders of how the Applicant was progressing and accounted for any feedback on current progress (Table 3-1).

5.5.1.3 The assessment for the Proposed Development (Offshore) alone (i.e., Caledonia OWF, Caledonia North Site and Caledonia South Site) with respect to disturbance due to piling was carried out for harbour porpoise in the North Sea (NS) Management Unit (MU), bottlenose dolphin in the Coastal East Scotland (CES) MU as well as minke whale in the Celtic and Greater North Seas (CGNS) MU.

5.5.1.4 The Proposed Development (Offshore) alone re-assessment confirmed that effects on harbour porpoise and minke whale due to disturbance during piling remain consistent with those reported in the original EIAR submission in November 2024. When the Graham *et al*. (2019[13]) deterrence function was applied, the number of animals predicted to be disturbed per piling day was substantially reduced compared to the estimates in the EIAR which used the Graham *et al*. (2017[14]) dose-response function. The re-assessment using the deterrence function predicted impacts to less than 5% of the original EIAR estimate using the dose-response function for harbour porpoise and less than 14% of the original EIAR estimate for minke whales. The re-assessment for both species corroborated **Negligible** (harbour porpoise) or **Minor** (minke whale) effects, which are both **Not Significant in EIA terms**.

5.5.1.5 For bottlenose dolphins, the number of animals predicted to be disturbed by pile driving was re-calculated using the dose-response function as per the EIAR alongside the advised 226 population size, the deterrence function and Effective Deterrence Ranges (EDR). Given that NatureScot in its representation flagged the potential for significant effects on the bottlenose dolphin CES MU population as a result of piling at the Proposed

Development (Offhore) alone, iPCoD was carried out for bottlenose dolphins for all disturbance assessment methods. The re-assessment using both the deterrence function as well as EDRs predicted far fewer animals disturbed than the dose-response method, with disturbance levels for the deterrence function reduced to less than 13% of the estimates in the EIAR using the dose-response function. The impacts were found to affect only a small proportion of the CES MU population, and iPCoD modelling showed no change in the population trajectory. The overall effect to the CES MU was classified as **Minor** and **Not Significant in EIA terms**, in line with the original EIAR conclusion.

5.5.1.6 The cumulative re-assessment with respect to disturbance due to piling was carried out for harbour porpoise in the NS MU, bottlenose dolphins in the CES MU, minke whale in the CGNS MU as well as harbour seals in three Seal Monitoring Units (SMUs) – Moray Firth (MF), East Scotland (ES) as well as North Coast and Orkney (NC&O). For cetaceans, a deterrence function was applied to all projects screened into the assessment. For harbour seals, the number of animals reported in project specific EIAs were used. If a project did not have an EIA available in the public domain, the number of harbour seals affected was calculated based on EDRs and the Carter *et al*. (2025[15]) at-sea density surface. The number of harbour seals affected by the Proposed Development (Offshore) alone was also re-calculated using the new Carter *et al*. (2025[15]) at-sea density surface. The cumulative re-assessment demonstrated reduced effects across all species compared with the original EIAR predictions.

5.5.1.7 For harbour porpoise, the deterrence function resulted in substantially lower numbers disturbed and subsequently the proportion of the NS MU affected was significantly smaller than previously estimated. The iPCoD modelling showed minimal deviation between the modelled impacted and unimpacted populations and the cumulative effect was concluded to be **Minor** and **Not Significant in EIA terms**.

5.5.1.8 The minke whale re-assessment similarly showed a large reduction in the number of animals predicted to be disturbed. In the peak year, disturbance estimates were reduced by approximately 70% compared to the original EIA values. iPCoD results demonstrated negligible differences between the modelled impacted and unimpacted populations, leading to the conclusion that the cumulative effect remains **Minor** and **Not Significant in EIA terms**.

5.5.1.9 For bottlenose dolphins, despite the inclusion of more projects in the updated assessment, cumulative disturbance was lower than previously predicted, with the maximum daily disturbance reduced from around 25% of the population in the original EIAR submission to a maximum of approximately 15%. iPCoD outputs indicated no change in the population trajectory in the long-term, supporting an overall effect of **Minor** and **Not Significant in EIA terms**.

5.5.1.10 For harbour seals, in the Moray Firth SMU the population trajectory was predicted to remain stable with negligible impact. In the North Coast and Orkney SMU, where a decline is already evident, no additional impact was predicted. The East Scotland SMU, which was newly included in the re-assessment, showed only small numbers of individuals potentially affected, with no influence on the population trajectory. Overall, effects across all SMUs were assessed as **Negligible or Minor** and **Not Significant in EIA terms**.

5.5.1.11 In summary, the re-assessment of disturbance due to piling indicates that both Proposed Development (Offshore) alone and cumulative impacts are lower than those predicted in the original EIAR submission. The application of the deterrence function provides more realistic estimates of disturbance, reducing predicted effects across all cetaceans. For harbour porpoise, bottlenose dolphin, minke whale, and harbour seal, the updated analysis predicts negligible to minor impacts, with no significant effects on population trajectories in the long-term. Consequently, the effects for all species are concluded to be **Not Significant in EIA terms**.

5.5.1.12 Additionally, an assessment of cumulative impacts of the respective OECCs was carried out for bottlenose dolphins, with particular focus on the CES MU and the Moray Firth SAC, as well as minke whales and the Southern Trench NCMPA. The assessment indicates that overlapping OECCs within the CES MU and the Southern Trench NCMPA may increase the potential for increased vessel presence from cable-lay vessels and associated vessels, noting these are likely relatively short campaigns. Peak construction activity is anticipated between 2029 and 2031. The high temporal overlap could increase the likelihood of short-term behavioural responses in bottlenose dolphins and minke whales, with potential for associated energetic consequences. However, it is considered unlikely that multiple projects will undertake construction within the same location and timeframe. Any associated impacts are therefore expected to be localised and temporary.

5.5.2 RIAA

5.5.2.1 The Applicant received a request for further information from MD-LOT which highlighted the advice provided by NatureScot in relation to marine mammals within the RIAA. NatureScot was unable to conclude no adverse effect on site integrity for the Moray Firth SAC with respect to behavioural disturbance from pile driving during construction of Caledonia North and Caledonia South alone and collectively (and therefore also in-combination with other plans and projects), despite the RIAA concluding no adverse effect on site integrity (Table 3-2).

5.5.2.2 The Applicant met with MD-LOT and NatureScot in June 2025 to provide project updates and discuss MD-LOT and NatureScot's representations in more detail (Table 3-1). The Applicant met with MD-LOT and NatureScot again in August 2025 to provide further project updates and to inform the stakeholders of how the Applicant was progressing and accounted for any feedback on current progress (Table 3-1).

5.5.2.3 NatureScot advised that the Dornoch Firth and Morrich More SAC, designated for harbour seals (*Phoca vitulina*), should have been retained in the assessment in accordance with the precautionary 50km screening threshold as set out in their advice on the Proposed Development (Offshore) HRA Stage 1 Screening Report.

5.5.2.4 Subsequently, an updated Marine Mammals RIAA report has been provided as an Appendix to this Addendum (Volume 8, Appendix 28: Marine Mammals RIAA Updates). This appendix updates the Caledonia North and Caledonia South RIAAs (Volume 7, Application Document 13 and Volume 7, Application Document 14, respectively) based on consultation and refinements to the design envelope of the Proposed Development (Offshore).

5.5.2.5 The appendix screens in the Dornoch Firth and Morrich More SAC for noise impacts on harbour seal. An environmental baseline and site context is established for the Dornoch Firth and Morrich More SAC and Sections 5 and 6 assesses the impacts, concluding that the Proposed Development (Offshore), Caledonia North and Caledonia South will not result in adverse effect on site integrity both alone or in-combination with other projects and plans.

5.5.2.6 Separately, additional modelling and iPCoD analysis has been carried out for bottlenose dolphin in relation to the Moray Firth SAC (see Section 5.5.1). The information necessary to inform the Appropriate Assessment on impacts on the bottlenose dolphin qualifying interest of the Moray Firth SAC has been updated with consideration for the updates to the modelling approach, as presented in Section 7 of Volume 8, Appendix 28: Marine Mammals RIAA Updates. The assessment concludes no adverse effect on site integrity from the Proposed Development (Offshore), Caledonia North and Caledonia South alone and in-combination with other projects and plans.

5.6 Offshore Ornithology

5.6.1 EIAR and RIAA

5.6.1.1 The Applicant received a request for further information from MD-LOT based on the NatureScot response which highlighted the need for further clarification on the approach for the stochastic CRM, in particular the stochastic NAF for great skua (Table 3-2). A value of 0 had been used in the EIAR, however MD-LOT suggest a value of 0.125 which should be accompanied by a reassessment if necessary. Additionally, MD-LOT requested further clarification on the frequency of vessel movements would be with regards to the potential impact of distributional response as a result of construction and the associated vessel traffic within the OECC.

5.6.1.2 The Applicant also received multiple requests for further information relating to the HRA (RIAA) from MD-LOT, as presented in Table 3-2. This included a request for updated screening and apportioning, and consideration of further PVA as a result, in line with NatureScot guidance. MD-LOT also requested an updated assessment of disturbance and displacement from vessels in the Moray Firth SPA. MD-LOT noted that PVA is required for great black-backed gull at the Copinsay SPA and Hoy SPA for both the project alone and in-combination assessments. Additionally, MD-LOT also requested a qualitative assessment for the cumulative assessment of distributional responses during construction and decommissioning for ornithology. MD-LOT also noted that cumulative and in-combination assessments have not been conducted for Caledonia North or Caledonia South individually within the EIAR and RIAA, and that these would be required to be submitted.

5.6.1.3 The Applicant met with MD-LOT and NatureScot in June 2025 to provide project updates and discuss representations in more detail (Table 3-1). The Applicant met with MD-LOT and NatureScot again in August 2025 to provide further project updates and to inform the stakeholders of how the Applicant was progressing the additional information requested, and accounted for any feedback on current progress (Table 3-1). Key updates to ornithological assessment and supplementary information are provided in the following appendices:

- Volume 8, Appendix 4: Ornithology Additional Information Report (Caledonia OWF);
- Volume 8, Appendix 5: Ornithology Additional Information Report (Caledonia North); and
- Volume 8, Appendix 6: Ornithology Additional Information Report (Caledonia South).

5.6.1.4 Within these appendices, cumulative assessments have been undertaken for Caledonia North (excluding Caledonia South) and for Caledonia South

(excluding Caledonia North) as agreed with NatureScot and MD-LOT within a consultation meeting on 04 June 2024. No updates to cumulative assessments were required for the Proposed Development (Offshore). A qualitative cumulative assessment of potential distributional responses during construction and decommissioning phases of the Proposed Development (Offshore), Caledonia North and Caledonia is presented in the respective appendices.

5.6.1.5 As discussed in consultation with NatureScot and MD-LOT during consultation meetings on 04 June 2025 and 07 August 2025, revised HRA screening and apportionment has been undertaken.

5.6.1.6 HRA screening has been undertaken using the nearest edge of the Caledonia OWF, Caledonia North Site and Caledonia South Site to the nearest edge of the SPA/Ramsar (closest distance around land). This has been undertaken separately for the Proposed Development (Offshore) (Volume 8, Appendix 7: Ornithology HRA Screening (Caledonia OWF)), Caledonia North (Volume 8, Appendix 8: Ornithology HRA Screening (Caledonia North)) and Caledonia South (Volume 8, Appendix 9: Ornithology HRA Screening (Caledonia South)).

5.6.1.7 HRA apportionment has been undertaken using the geometric centre of the OWF to the geometric centre of the SPA/Ramsar (closest distance around land). This has been undertaken separately for the Proposed Development (Offshore) (Volume 8, Appendix 10: Ornithology Apportioning Technical Report (Caledonia OWF)), Caledonia North (Volume 8, Appendix 11: Ornithology Apportioning Technical Report (Caledonia North)) and Caledonia South (Volume 8, Appendix 12: Ornithology Apportioning Technical Report (Caledonia South)).

5.6.1.8 Updated predicted impacts for distributional responses and collision as a result of the changes made to HRA screening and apportionment for the Proposed Development (Offshore), Caledonia North and Caledonia South alone and in-combination with other plans and projects during the operational and maintenance phase are presented in Volume 8, Appendix 4: Ornithology Additional Information Report (Caledonia OWF), Volume 8, Appendix 5: Ornithology Additional Information Report (Caledonia North); and Volume 8, Appendix 6: Ornithology Additional Information Report (Caledonia South). As noted above, while no updates to cumulative assessments were required for the Proposed Development (Offshore), an updated in-combination assessment is presented for the Proposed Development (Offshore) to account for the changes made to HRA screening and apportionment. In-combination assessments have been undertaken for Caledonia North (excluding Caledonia South) and for Caledonia South (excluding Caledonia North) as agreed in consultation with NatureScot and MD-LOT within a consultation meeting on 04 June 2024.

5.6.1.9 Updated PVA has been undertaken for relevant populations due to the revised predicted impacts of the Proposed Development (Offshore),

Caledonia North and Caledonia South as outlined in Volume 8, Appendix 10: Ornithology Apportioning Technical Report (Caledonia OWF)), Caledonia North (Volume 8, Appendix 11: Ornithology Apportioning Technical Report (Caledonia North)) and Caledonia South (Volume 8, Appendix 12: Ornithology Apportioning Technical Report (Caledonia South)). Detailed PVA outputs are provided in within Volume 8, Appendix 16: Ornithology Population Viability Assessment (PVA) Technical Report (Caledonia OWF), Volume 8, Appendix 17: Ornithology Population Viability Assessment (PVA) Technical Report (Caledonia North) and Volume 8, Appendix 18: Ornithology Population Viability Assessment (PVA) Technical Report (Caledonia South).

5.6.1.10 No adverse effects on site integrity was concluded for all sites designated for offshore and intertidal ornithology for the Proposed Development (Offshore), Caledonia North and Caledonia South alone; however, the following sites concluded AEoI in-combination with other plans and projects (noting small differences between Caledonia North and Caledonia South):

- **East Caithness Cliffs SPA for razorbill; distributional response effects in-combination with other plans and projects when considering the level of potential effect predicted from the Guidance approach;**
- **East Caithness Cliffs SPA for kittiwake; combined collision risk distributional response effects in-combination with other plans and projects;**
- **East Caithness Cliffs SPA for guillemot; distributional response effects in-combination with other plans and projects when considering the level of potential effect predicted from the Guidance approach;**
- **North Caithness Cliffs SPA for puffin; distributional response effects in-combination with other plans and projects when considering the level of potential effect predicted from the Guidance approach;**
- **North Caithness Cliffs SPA for kittiwake; combined collision risk distributional response effects in-combination with other plans and projects;**
- **Forth Islands SPA for gannet; combined collision risk and distributional response effects in-combination with other plans and projects;**
- **Buchan Ness to Collieston Coast SPA for kittiwake; combined collision risk and distributional response effects in-combination with other plans and projects (adverse effects of site integrity could not be ruled out);**

- **Troup, Pennan and Lion's Head SPA for kittiwake; combined collision risk and distributional response effects in-combination with other plans and projects; and**
- **Troup, Pennan and Lion's Head SPA for guillemot; distributional response effects in-combination with other plans and projects when considering the level of potential effect predicted from the Guidance approach.**

5.6.2 Shadow Derogation Case

5.6.2.1 The Applicant received a request for further information from MD-LOT which highlighted the advice provided by NatureScot, in which it was advised that there is insufficient information to have confidence that the proposed measures are likely to compensate for the predicted impacts of the proposal to seabirds (Table 3-2). RSPB also raised similar concerns that compensatory measures are not considered appropriate or sufficient as currently proposed (Table 3-2). MD-LOT advised that without pre-determining the outcome of any Appropriate Assessment under the HRA process the applicant give consideration to this advice and may want to submit an updated shadow derogation case for consideration at this stage.

5.6.2.2 The Applicant met with MD-LOT and NatureScot in June 2025 to provide project updates and discuss MD-LOT and NatureScot's representations in more detail (Table 3-1). The Applicant met with MD-LOT and NatureScot again in August 2025 to provide further project updates and to inform the stakeholders of how the Applicant was progressing the additional information requested, including the further development of compensation measures and accounted for any feedback on current progress (Table 3-1).

5.6.2.3 The Caledonia North RIAA (Application Document 13) and Caledonia South RIAA (Application Document 14) submitted to MD-LOT in November 2024, and subsequently the additional information submitted as part of this addendum package for Caledonia OWF, Caledonia North and Caledonia South (see Volume 8, Appendices 4, 5 and 6), through apportioning, in-combination assessments and PVA, concluded that the Proposed Development (Offshore) could have an adverse effect on site integrity on a number of SPA seabird populations when impacts from the Proposed Development (Offshore) are considered in-combination with other projects. For this reason, the consent applications for Caledonia North and Caledonia South are supported by a derogation case, including the development of compensation measures for black-legged kittiwake, Northern gannet, common guillemot, razorbill and Atlantic puffin. For guillemot, razorbill and puffin, this derogation case is without prejudice, based on the fact that the Applicant Approach in the Caledonia North and Caledonia South RIAAs concluded no adverse effects on site integrity for those species.

5.6.2.4 Updates to the compensation plan have been prepared in a standalone appendix (Volume 8, Appendix 29: Addendum to the Caledonia North and Caledonia South Compensation Plans) providing key information and updates on the proposed compensation measures. The appendix sets out the proposed compensation quanta, including methodology and calculations, to be applied based on predicted impacts using the Guidance and Applicant Approaches to assessment. Noting the Applicant's preference for delivering compensation is through a contribution to a strategic compensation programme, the appendix also provides further detailed information on the proposed project-specific compensation measures, including:

- Reduction of disturbance at colonies;
- Mammalian predator management;
- Bycatch mitigation;
- Restoration or maintenance of breeding sites; and
- Conservation management funding.

5.6.2.5 It is noted that the Applicant has decided not to progress measures relating to (non-lethal) avian predator control at this time, on the basis that NatureScot and RSPB do not support it as a potential compensation measure.

5.6.2.6 Since the consent applications were submitted, the Applicant has partnered with National Trust for Scotland (NTS) and Muir Mhòr OWF to develop a programme of predator control and biosecurity on NTS islands. A letter of intent from NTS has been received by the Applicant (Volume 8 Appendix 32), and a Memorandum of Understanding has been signed between the Applicant and Muir Mhòr. Site visits by the Applicant to the East Caithness Cliffs (Volume 8, Appendix 34: East Caithness Cliffs Site Assessment Report (Confidential)) and the Isle of May have identified a number of potential locations for compensatory measures to be progressed.

5.6.2.7 A Refined Outline Implementation and Monitoring Plan (Volume 8, Appendix 30) has been produced alongside the compensation plan updates, providing further detail on the implementation and monitoring of the measures as developed since the consent applications were submitted in November 2024. The Refined Outline IMP also provides an indicative roadmap for measure refinement, monitoring and implementation. The final scale of compensation to be delivered is to be consulted upon with the compensation steering groups post-consent and captured in the final IMP.

6 Summary and Conclusions

6.1.1.1 This Addendum to the Caledonia OWF EIAR and HRA, and suite of supporting technical appendices, supplements and updates elements of the original consent application documents submitted by the Applicant to MD-LOT in November 2024.

6.1.1.2 This Addendum has been produced in response to MD-LOT's formal Request for Additional Information, received on 17 July 2025. The request was made to support MD-LOT in reaching a reasoned conclusion on the likely significance of environmental effects from the Proposed Development (Offshore) and sought several points of clarification raised during stakeholder consultation. The request for additional information relates to the following receptors/topics:

- Marine and coastal processes;
- Benthic subtidal and intertidal ecology;
- Fish and shellfish ecology;
- Marine mammals; and
- Ornithology (including HRA/shadow derogation).

6.1.1.3 A range of additional information has been collated to inform the request from MD-LOT. Assessment outcomes consistently indicating reduced impact significance levels compared to the original EIAR, noting the reduced number of piling days within the refined design envelope. Where new assessments or approaches have been completed, anticipated effects are considered non-significant in EIA terms or unlikely to result in adverse effects on site integrity of designated sites.

6.1.1.4 The consent applications for Caledonia North and Caledonia South are supported by a derogation case, including the development of compensation measures for black-legged kittiwake, Northern gannet, common guillemot, razorbill and Atlantic puffin. Updates to the compensation plan provide detailed information on the proposed project-specific compensation measures, with the Applicant partnering with NTS and Muir Mhòr OWF to further develop measures. Site visits by the Applicant to the East Caithness Cliffs and the Isle of May have identified a number of potential locations for compensatory measures to be progressed.

6.1.1.5 A Refined Outline IMP has been produced alongside the compensation plan updates, providing further detail on the proposed implementation and monitoring of the measures, as well as an indicative roadmap for measure refinement, monitoring and implementation.

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