# **Appendix I: Consultation representations and advice**

## Arven Offshore Wind Farm

[Redacted] From: To:

MD Marine Renewables
[Redacted]; [Redacted] Cc:

RE: SCOP-0071 - Shetland Offshore Wind Limited - Stoura Offshore Wind Farm - Consultation on Request Subject:

for Scoping Opinion – Response Required by 07 August 2025

05 August 2025 17:47:58 Date:

image001.png **Attachments:** 

image003.png image004.png

#### Dear Jennifer,

Thank you for the opportunity to review and comment on the Stoura Offshore Windfarm EIA Scoping Report. On behalf of Arven Offshore Windfarm I submit the following comments.

Section	Comment
General	There are a number of references throughout the Stoura EIA Scoping Report to the Arven EIA Scoping Report. In some cases these references give the date of the Arven report as 2023 and in other cases 2024, but refer to the same report with the same title. This appears to be an error. To avoid any confusion on behalf of readers, Arven wish to make it clear that there is currently only one Arven Offshore Wind Farm EIA Scoping Report that has been submitted, which is dated May 2024.
Chapter 9	The statement regarding the results of the Arven benthic
Offshore Biological Environment  • Subtidal Sediments Section 9.1.4.6	habitat baseline survey is broadly correct if referring to the Arven array area, though not correct if referring to the Pobie Bank Reef SAC. However, Arven wish to make it clear that the spatial scope of that survey was limited to the two Arven array areas, the seabed inbetween the two Arven array areas and the parts of the Pobie Bank Reef SAC that lie immediately to the west of the Arven array areas. The spatial scope did not extend any wider, so did not cover the majority of the Stoura Regional Benthic Ecology Study Area.
Chapter 9 Offshore Biological Environment	These sections contain statements regarding the number of "individual[s] recorded during the six month DAS survey for the Arven Offshore Wind Farm Offshore Project". For the avoidance of any confusion on behalf of readers, Arven
<ul> <li>Lesser black-backed gull Section 9.4.4.32</li> <li>Common tern Section 9.4.4.35</li> <li>Arctic tern Section 9.4.4.38</li> </ul>	wish to make it clear that Arven's DAS extended over a 24-month period, not only a 6-month period. The statement may be referring to the fact that when the Arven EIA Scoping Report was written, the DAS was still in progress and therefore data from the full 24-month survey period was not yet available to be referenced in the report.
Chapter 10 Offshore Human	It would be more accurate to describe the proposed Arven Offshore Wind Farm as being split across two separate

#### and Socio-Economic Environment

- Infrastructure and Other Users Section 10.5.4.9
- Major
   Accidents
   and Disasters
   Section
   10.9.3.19

seabed option agreement areas, currently referred to as Arven and Arven South (as described in the Arven EIA Scoping Report). The two option areas were not awarded solely to Ocean Winds as one of the areas was awarded to a joint venture of which Ocean Winds was a part, however the two areas are now being developed as one project.

Thanks, Chris



### 

www.arvenoffshorewind.com

From: radionetworkprotection@bt.com

To: MD Marine Renewables

Cc: [Redacted] ; [Redacted] radionetworkprotection@bt.com

Subject: WID13934 - SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on Request for Scoping

Opinion - Response Required by 07 August 2025

**Date:** 16 July 2025 08:48:18 **Attachments:** image003.png

image005.png

image007.png



#### OUR REF; WID13934

We have studied this proposal using the below figure 3.1 from the scoping report online with respect to EMC and related problems to BT point-to-point microwave radio links.

The conclusion is that this proposal should not cause interference to BT's current and presently planned radio network. If there are any structures at height within the offshore scoping boundary please let us know locations and dimensions so we can reassess for you. If there aren't any there is no need to confirm and this is approved.

BT requires 100m minimum clearance from any structure at height to the radio link path. It should be noted that this decision is for the date of its issue as the use of the spectrum is dynamic and can change on an ongoing basis. Therefore, please reconsult us if there are any further changes during the planning process with heights and locations of any structures, and its finalisation, as we may have new links assigned by Ofcom over its duration.

Please note this refers to BT Radio Links only, you will need to contact other providers separately for information relating to other supplier links / equipment.



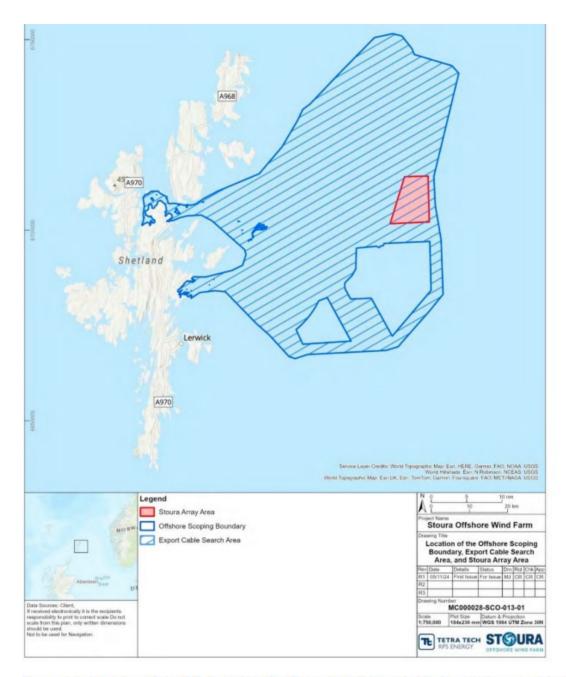


Figure 3.1: Location of the Offshore Scoping Boundary, Export Cable Search Area, and Stoura Array Area

#### **Kind Regards**

#### **Lisa Smith**

National Radio Planner Radio & Satellite Platforms



This email contains information from BT Group that might be privileged or confidential. And it's only meant for the person above. If that's not you, we're sorry - we must have sent it to you by mistake. Please email us to let us know, and don't copy or forward it to anyone else. Thanks.

We monitor our email systems and may record all our emails.

# Fisheries Management Scotland



T: +44 (0)131 221 6567

E: [Redacted]

Marine Directorate - Licencing Operations Team By E-mail

22 August 2025

Dear Sir/Madam,

SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on Request for Scoping Opinion & HRA Screening

Fisheries Management Scotland is the representative body for Scotland's District Salmon Fishery Boards, the River Tweed Commission and charitable Rivers and Fisheries Trusts. Our members work to conserve Scotland's valuable and iconic wild salmon and freshwater fish and fisheries and the aquatic environment on which they depend.

Offshore renewable energy has an important role to play if the Scottish Government are to meet their commitment for Scotland to reach net-zero emissions of all greenhouse gases by 2045. However, there remain a number of outstanding questions and concerns about the potential negative effects on diadromous fish, including Atlantic salmon and sea trout.

District Salmon Fishery Boards have a statutory duty to protect and improve salmon and sea trout fisheries. In assessing marine renewable energy developments (wind, wave or tidal), it is important that DSFBs and Fisheries Trusts, can be assured that all potential negative impacts have been assessed in full, and mitigations put in place. Where uncertainty remains, the developer should be required to contribute to research which will help fill these evidence gaps, as a condition of their operational consent. In addition, and in the light of the nature crisis, we believe that all developers should contribute to projects designed to conserve and restore important habitat at a catchment scale.

Across Scotland, wild salmon populations are in crisis, and face a range of pressures, some of which are under human control. The Scottish Government have published a <u>wild salmon strategy</u> and <u>implementation plan</u>, which sets out the actions to be taken over a five year period to 2028. The implementation plan includes a number of actions under the heading of "understanding and mitigating pressures in the marine and coastal environment".

Where salmon populations are below their conservation limits, any additional pressure, including from marine renewables, cannot be considered sustainable. Scottish salmon rivers are categorised by the Scottish Government under The Conservation of Salmon (Scotland) Regulations 2016, according to the likelihood of them meeting their conservation limits. The most recent river gradings have been <u>published for 2025</u>. There are now 117 rivers across Scotland graded as Category 3, meaning there is a less than 60% probability of meeting their conservation limit.

It is now well-recognised that populations of Atlantic salmon have rapidly deteriorated across their native range. In the latest species reassessment by the <u>IUCN Red List</u> of Threatened Species, released in December 2023, Atlantic salmon have been reclassified from 'Least Concern' to 'Endangered' in Great Britain (as a result of a 30-50% decline in British populations since 2006 and 50-80% projected between 2010-2025), and from 'Least Concern' to 'Near Threatened' in terms of global populations (as a result of global populations declines of 23% since 2006).

We note, and support, the recent position that the Marine Directorate have taken - "MSS do not consider it appropriate for an EIA/HRA to conclude there is no or negligible impact just because no evidence exists of the impact. MSS advise that impacts to diadromous fish must be adequately investigated, rather than relying on a lack of evidence to claim there is no impact".

There is considerable uncertainty around the potential for impacts of offshore wind farms on Atlantic salmon, with limited evidence to support claims of lack of impacts. Given the significant decline in wild Atlantic salmon populations in recent years we are strongly of the view that a precautionary approach in assessments is required. Such an approach should take into account both the interactions of migratory fish with the project site, but also with the proposed cabling routes and landfall. Assessments of impacts on migratory fish species should also consider cumulative impacts, not only at sea, but also any impacts associated with terrestrial infrastructure, energy transmission and with particular emphasis on associated river crossings for cables.

There are 17 Special Areas of Conservation for which Atlantic salmon are either a primary reason for designation or a qualifying feature. For sea lamprey, there are six SAC sites and for river lamprey, there are six SAC sites. For freshwater pearl mussel, there are 19 SAC sites.

We note that the LSE screening report states that "there is evidence that Atlantic salmon are likely to be present within rivers throughout Shetland, and it is reasonable to assume presence in the NE1 Offshore Development Area, where the Offshore Project will be located". It also states that a 'precautionary' 100km ZoI has been used to assess for connectivity of the Offshore Project with European sites designated for Annex II diadromous

fish. We believe that the figure of 100km is entirely arbitrary and is irrelevant to highly mobile species such as Atlantic salmon. It is well understood that Atlantic salmon in coastal waters on the north coast of mainland Scotland are associated with rivers throughout Scotland, including SAC rivers. It cannot be discounted that juvenile or adult salmon in the vicinity of the development are not from any of the SACs across Scotland. On that basis, we object to the screening out of all European sites designated for Annex II diadromous fish and shellfish features for further assessment. Given what is currently known about salmon migration routes, we consider that none of these SACs can be discounted for consideration with regard to the proposed development.

We note that Scotland's SAC's have not had a site assessment since 2011 when numbers of returning adult salmon were significantly higher than they are now. The National Electrofishing Programme Scotland (NEPS) was developed in response to the declining salmon numbers to provide a more detailed understanding of the salmon populations and the pressures acting on them. Although NEPS was not designed to assess the status of the SACs, an assessment was possible of the larger SACs that were surveyed in the 2021 sampling programme. Only half of those SACs were considered to be in favourable condition (Malcolm et al 2023).

Whilst there is often a focus on rivers designated at Special Areas of Conservation (SACs), it is important to recognise that the drivers behind declines in wild salmon and sea trout, and other species of migratory fish, affect **all** rivers to a greater or lesser extent. In recognition that the marine phases of both Atlantic salmon and sea trout are included on the list of Priority Marine Features - the habitats and species of *greatest conservation importance* in inshore waters – we consider that **all** relevant rivers should be fully considered in the consenting and assessment process.

Under Scottish Marine Energy Research (ScotMER), the <u>Diadromous Fish Receptor Group</u> has identified evidence gaps related to the health, distribution, and impacts on Diadromous fish (salmon, sea trout, etc.). Scottish Government has published an 'evidence map' (available for download at the above link) which identifies and scores these evidence gaps according to a specific prioritisation process. It is important that each of these evidence gaps is considered in full by the applicant, and developers should *contribute* to filling these evidence gaps as a **specific condition of consent**.

In order to properly assess Environmental Statements for developments, information on the use of the development area by diadromous fish should be provided. If such information is lacking then a suitable monitoring strategy should be devised, either for the site in question or through contributing to strategic projects undertaken through ScotMER. Any monitoring strategies must include pre-construction monitoring in order that baseline information on movement, abundance, swimming depth, feeding behaviour etc. can be collected.

Offshore renewable developments have the potential to directly and indirectly impact diadromous fish. We would therefore expect developers to assess and, where necessary, mitigate the potential impacts of deployed devices on such fish during the deployment, operation and decommissioning phases. These potential impacts have been highlighted through ScotMER, and include:

- Avoidance (including exclusion from particular rivers and subsequent impacts on local populations);
- Disorientation effects that could potentially affect behaviour, susceptibility to predation or by-catch; and
- Impaired ability to locate normal feeding grounds or river of origin; and delayed migration

As the proposed development is a floating offshore wind farm, we are particularly concerned that the impact of electromagnetic fields (EMFs) arising from inter-array cables (which cannot be buried or shielded) are fully considered in relation to the migratory behaviour of wild salmonids.

Following engagement with members of Fisheries Management Scotland we highlight in particular, the following priorities identified through ScotMER:

- DF.01-2022: Spatial and Temporal Distribution
- DF.04-2022: Effects on diadromous fish behaviour including fish aggregations around devices (ecological traps)
- DF.02-2022: Survival and progression rates in relation to passing through marine renewable areas
- DF.03-2022: Influence on migratory patterns due to cable deployment (EMF)

Fisheries Management Scotland request that, in addition to the evidence gaps identified by ScotMER, the EIA considers the effects of predator aggregation (e.g. large gadoids/ grey seals) around the proposed development on migrating salmonids at both the smolt and adult stages and, additionally, physical barrier effects on salmon during construction and operation (e.g. noise, shadow flicker). In this regard, it should be noted that NatureScot has formally conceded that shadow flicker from moving turbine blades (and also the direct visual effects of moving blades) may adversely affect salmonids in freshwater habitat. Since exactly the same physical principles apply in the marine environment, surface-orientated fish like salmonids are likely to be exposed to equivalent adverse effects.

Scotland's National Marine Plan includes the following policy which relates to diadromous fish:

WILD FISH 1: The impact of development and use of the marine environment on diadromous fish species should be considered in marine planning and decision making processes. Where evidence of impacts on salmon and other diadromous species is

inconclusive, mitigation should be adopted where possible and information on impacts on diadromous species from monitoring of developments should be used to inform subsequent marine decision making.

We would emphasise that to date, and as detailed above, there remains considerable uncertainty around evidence of impacts on salmon and other diadromous species. We therefore expect to see proposals for strategic research **and** mitigation. In the case of mitigation, this should be focussed, in line with international advice via NASCO, on projects which improve freshwater conditions and increase the number of healthy wild salmon and sea trout smolts leaving Scotland's rivers.

#### Conclusion

It should be emphasised that we have no wish to prevent or delay any proposed development unnecessarily and we remain keen to work constructively with the developers and the Marine Directorate to identify appropriate monitoring programmes which will allow us to be able to assess the acknowledged risks of this development, and other proposed developments in a more appropriate manner. There is a clear and urgent need to fund, plan and start strategic research on the movement, abundance, swimming depth, feeding behaviour and impact pathways relevant to diadromous fish. Such research would clearly feed into the potential mitigation measures that might be deemed appropriate, and the conditions under which such mitigation should be enacted. Developers should be required to work together to fund strategic monitoring, in order to allow more certainty for all involved.

The scale of proposed offshore developments and other technical approaches to marine renewables development represents a step-change in the exposure of marine animals of high cultural and economic significance to attendant risks. As highlighted above, understanding of many of these risks is insufficient to support proposals for mitigation even at this late stage when substantial developments are being submitted for licensing. The cumulative impact of this proposal alongside those developments already submitted or likely to follow in the near future is potentially even greater. We believe that more needs to be done to ensure that the best scientific talent is made available to find practicable ways to address the unresolved uncertainties. Fisheries Management Scotland would welcome an opportunity to constructively engage with any such process.

Yours faithfully,

[Redacted]

Alan Wells

CEO, Fisheries Management Scotland

## Historic Environment Scotland



By email to: MD.MarineRenewables@gov.scot

Jennifer Goodheir Casework Officer Licencing Operations Team Marine Directorate (Glasgow) Longmore House Salisbury Place Edinburgh EH9 1SH

Enquiry Line: 0131 668 8716 HMConsultations@hes.scot

Our case ID: 300075003 Your ref: SCOP-0071

20 August 2025

Dear Jennifer Goodheir

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

Shetland Offshore Wind Limited – Stoura Offshore Wind Farm, Shetland Comments on scope of proposed Environmental Impact Assessment

Thank you for consulting us on this Environmental Impact Assessment (EIA) scoping report, which we received on 08 July 2025. We have reviewed the details in terms of our historic environment interests. This covers World Heritage Sites, scheduled monuments and their settings, category A-listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and Historic Marine Protected Areas (HMPAs).

Please note that from 1 January 2025, we no longer provide advice on undesignated underwater cultural heritage, although we retain our advisory and regulatory roles for designated assets such as HMPAs, scheduled monuments and listed buildings within the marine environment. For EIA projects, the relevant competent authority must ensure that they have access to sufficient expertise to examine the EIA Report in accordance with the relevant regulations.

Shetland Islands Council's archaeological and cultural heritage advisors will also be able to offer advice on the scope of the cultural heritage assessment. This may include topics covered by <u>our advice-giving role</u>, and also other topics such as unscheduled archaeology, category B and C listed buildings, and conservation areas.

#### Scope of assessment

We have identified potential for significant effects on our historic environment interests. Our advice on the nature of these impacts, and any potential mitigation measures, is included in an annex to this covering letter. This also includes our requirements for information to be included in the EIA Report.

Historic Environment Scotland – Longmore House, Salisbury Place, Edinburgh, EH9 1SH Scottish Charity No. **SC045925** 

VAT No. GB 221 8680 15



#### Further information

Decisions that affect the historic environment should take the <u>Historic Environment Policy for Scotland</u> (HEPS) into account as a material consideration. HEPS is supported by our Managing Change guidance series. In this case the advice provided in the <u>Setting</u> guidance note appears to be the most relevant.

We also recommend that the applicant refers to the <u>EIA Handbook</u> for best practice advice on assessing cultural heritage impacts.

We hope this is helpful. If you would like to submit more information about this or any other proposed development to us for comment, please send it to our consultations mailbox, <a href="mailto:hmconsultations@hes.scot">hmconsultations@hes.scot</a> If you have questions about this response, please contact Deirdre Cameron at [Redacted]

Yours sincerely

**Historic Environment Scotland** 



#### **ANNEX: Our Detailed Comments**

#### Proposed development

We understand that the proposed development comprises an offshore turbine array of up to 40 turbines standing up to 385m to blade tip height, an offshore substation platform, cabling and associated infrastructure. The array would be located approximately 50km off the eastern shore of Shetland.

#### Background

We attended a pre-scoping meeting with the applicant's representatives and other consultees on 6 March 2025. We were generally content with the proposed scope and methodology proposed.

#### **Scoping Report**

The scoping report provides sufficient information to understand the location and nature of the project. Relevant policy and guidance is referenced in the report and we are content that the methodology for identification of impacts and assessment of significance laid out in section 4.5 follows the process recommended in the EIA Handbook.

We note and welcome the consideration given to cultural heritage impacts in sections 10.4 Marine Archaeology, 10.7 Seascape, Landscape and Visual Impact Assessment (gardens and designed landscapes) and 10.8 Cultural Heritage, and the decision to include these interests in the list of topics to be scoped in for consideration in the EIA Report. However, we would expect to see gardens and designed landscapes considered in the Cultural Heritage section rather than, or in addition to, the SLVIA. Assessment of setting impacts for cultural heritage assets and the consideration of landscape and visual impacts are different disciplines assess different aspects of an assets significance and are not interchangeable.

We also welcome the assurance that the terrestrial aspects of the development (above MHWS) will be considered in a separate assessment process.

#### Our interest

We are generally content that sites selected for assessment of settings impacts arising from the proposed offshore elements are sufficient for our needs.

#### Physical Impacts

The cable search area includes a Historic Marine Protected Area; Out Skerries Historic MPA (HMPA 5) which includes the remains of two 17<sup>th</sup> century vessels, one of which belonged to the Dutch East India Company and the other a Danish warship.

Potential direct and indirect physical impacts on the HMPA should be assessed with reference to the preservation objectives and operational advice for the HMPA, which can be found in the information accessible via the link above. We would expect any mitigation required to follow standard mitigation hierarchies with avoidance as the preferred option.

Historic Environment Scotland – Longmore House, Salisbury Place, Edinburgh, EH9 1SH Scottish Charity No. **SC045925** 

VAT No. GB 221 8680 15



An assessment of the impact of onshore infrastructure at the cable landing zones should also be made. Numerous scheduled monuments are present within the potential cable landing zones. Any physical impacts on these monuments below the Mean High Water Springs (MHWS) boundary should be assessed in the EIA and avoided (as noted above, we understand that any impacts occurring above the MHWS will be assessed in a separate terrestrial EIA). If necessary, appropriate measures should be put in place to ensure that monuments do not experience vibrational impacts caused by the routing of cables from sea to shore.

#### **Setting Impacts**

We welcome the consideration of the impact of the marine aspects of the development on the settings of terrestrial designated historic assets in the report.

Although the list of sites selected for further consideration in the EIA provided in Table 10.30 appears reasonable, it would have been useful to see more detail on the initial sieving process that led to their selection. While we appreciate it would have been a substantial task to document the decision-making process for an additional 127 assets, this work was presumably undertaken as part of the sieving process and its inclusion in the report would have provided a more complete and transparent record of that process.

#### Our position

The proposed development has the potential to result in adverse effects on designated cultural heritage assets. We consider that if any such effects are identified during the assessment process it is probable that they could be mitigated or avoided through careful design and working methods. We would be happy to offer further information and advice as the assessment proceeds.

Historic Environment Scotland 20 August 2025

Highlands and Islands Airports Ltd - Sumburgh Airport

From: Safeguarding
To: MD Marine Renewables

Cc: <u>Safeguarding</u>

Subject: Re: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on Request for Scoping Opinion –

Response Required by 07 August 2025

**Date:** 07 August 2025 11:07:35 **Attachments:** image002.png

image002.png

values2025 49f0881e-b581-44a4-b961-1aecd2620b56.png

#### OFFICIAL

#### Dear Sir/Madam.

HIAL have reviewed the scoping study and as stated within the Stoura development is outwith the IFP Safeguarding Criteria for Sumburgh Airport. As such HIAL have no objection at this time. Any material change on location would require re assessment.

On reviewing the scoping report I noticed an error on page 344 (p355 of PDF) highlighted below.

Civil ATC Radars 10.3.4.6 The nearest civil PSRs to the Stoura Array Area are the NATS Allanshill and Perwinnes radars both of which are located more than 130nm (246km) to the south. There is no possibility that the proposed wind turbines will be in radar line of sight (RLOS) of either radar. NATS also have a Secondary Surveillance Radar (SSR) located at Sumburgh 47nm (87km) to the southwest; the published safeguarding area for SSRs is 8nm (15km). Consequently, no civil ATC radar systems are expected to be affected by the Stoura Array Area

There is currently a closer NATS PSR Radar on Compass Head at Sumburgh. NATS Aberdeen provide an Approach Radar Service ("Sumburgh Radar") for HIAL that uses this NATS Asset.

Grid Reference	X (Eastings)	Y (Northings)	Latitude	Longitude	Description (Click to Edit)	Address	Postcode	
HU 40805 09414	440805	1109414	59.867874	-1.2731338	Compass Head PSR Rade	Radar, A970, Sumburgh, Scatness, Shetland, Scotland, ZE3	ZE3 9JN	

#### Kind Regards

#### Michael



#### Safeguarding

Highlands and Islands Airports Ltd Inverness Airport Dalcross IV2 7JB www.hial.co.uk

# Joint Radio Company

From: Joint Radio Company MD Marine Renewable To: [Redacted] [Redacted] Cc:

Re: Stoura Offshore Wind Farm - SCOP-0071 - Shetland Offshore Wind Limited - Consultation on Request for Scoping Opinion -

Response Required by 07 August 2025

24 July 2025 09:07:07 Date:

Dear Sir/Madam,

Apologies please see below for correct location

Planning Ref: SCOP-0071

Name/Location: Stoura Offshore Wind Farm, Shetland

Site Location: 0.0284520°W 60.4706368°N

Development Radius: 6km (Approx)

Hub Height: 220m (max) Rotor Radius: 165m (max)

This proposal is cleared within the provided array area - with respect to radio link infrastructure operated by the local energy networks.

JRC analyses proposals for wind farms on behalf of the UK Fuel & Power Industry. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.

In the case of this proposed wind energy development, JRC does not foresee any potential problems based on known interference scenarios and the data you have provided. However, if any details of the wind farm change, particularly the disposition or scale of any turbine(s), it will be necessary to re-evaluate the proposal.

In making this judgement, JRC has used its best endeavours with the available data, although we recognise that there may be effects which are as yet unknown or inadequately predicted. JRC cannot therefore be held liable if subsequently problems arise that we have not predicted.

It should be noted that this clearance pertains only to the date of its issue. As the use of the spectrum is dynamic, the use of the band is changing on an ongoing basis and consequently, developers are advised to seek re-coordination prior to considering any design changes.

Regards

Wind Farm Team

Friars House Manor House Drive Coventry CV1 2TE United Kingdom

Office: 02476 932 185

JRC Ltd. is a Joint Venture between the Energy Networks Association (on behalf of the UK Energy

Industries) and National Grid.

Registered in England & Wales: 2990041 About The JRC | Joint Radio Company | JRC

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#### disposition or scale of any turbine(s), this clearance will be void and reevaluation of the proposal will be necessary.

Dear Sir/Madam,

Planning Ref: SCOP-0071

Name/Location: Stoura Offshore Wind Farm, Shetland

Site Location: 218453 3147

Development Radius: 6km (Approx)

Hub Height: 220m (max) Rotor Radius: 165m (max)

This proposal is **cleared within the provided array area** - with respect to radio link

infrastructure operated by the local energy networks.

JRC analyses proposals for wind farms on behalf of the UK Fuel & Power Industry. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.

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In making this judgement, JRC has used its best endeavours with the available data, although we recognise that there may be effects which are as yet unknown or inadequately predicted. JRC cannot therefore be held liable if subsequently problems arise that we have not predicted.

It should be noted that this clearance pertains only to the date of its issue. As the use of the spectrum is dynamic, the use of the band is changing on an ongoing basis and consequently, developers are advised to seek re-coordination prior to considering any design changes.

Regards

Wind Farm Team

Friars House Manor House Drive Coventry CV1 2TE United Kingdom

Office: 02476 932 185

JRC Ltd. is a Joint Venture between the Energy Networks Association (on behalf of the UK Energy Industries) and National Grid.

Registered in England & Wales: 2990041

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On Wed, 16 Jul at 8:52 AM , scottish government <md.marinerenewables@gov.scot> wrote:

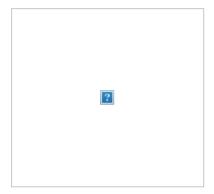
Good afternoon,

Thank you for your response to the above consultation.

The developer came back to MD-LOT with the co-ordinates and radius, as requested. I appreciate that JRC have provided a response prior to this information being forwarded. For the avoidance of doubt, I would be grateful if

## you could advise whether the information below alters the JRC response to this consultation.

- The approximate centre coordinates are: 0.0284520°W 60.4706368°N
- The radius to the furthest corner is approximately 8.32km (see reference image below). The other corners are approx. 6.5km from the centre point.



Kind regards,

Jenny

Jennifer Goodheir (pronouns she/her)
Casework Officer, Marine Directorate - Licencing Operations Team (MD - LOT)

Scottish Government | 5 Atlantic Quay | 150 Broomielaw | Glasgow | G2 8LU E: [Redacted]

Please note - I do not work on a Friday. My working hours are between 8am and 4pm Monday to Thursday.

#### **The Scottish Government**



To see how we use your personal data, please view our Marine licensing and consenting: privacy notice - gov.scot (www.gov.scot)

<u>Marine Directorate</u> | <u>Marine Directorate Blog</u> | <u>@ScotGovMarine</u> | <u>Marine Directorate LinkedIn</u>

From: Joint Radio Company <wftracker@jrc.co.uk>

**Sent:** 11 July 2025 13:42

**To:** MD Marine Renewables < MD.MarineRenewables@gov.scot>

cc: [Redacted] [Redacted]

Subject: Re: Stoura Offshore Wind Farm - SCOP-0071 - Shetland Offshore

If any details of this proposal change, particularly the disposition or scale of any turbine(s), this clearance will be void and re-evaluation of the proposal will be necessary.

Dear Sir/Madam,

Planning Ref: SCOP-0071

Name/Location: Stoura Offshore Wind Farm, Shetland Site Location: Over 52km from shore, east of Shetland

Development Radius: 6km (Approx)

Hub Height: 220m (max) Rotor Radius: 165m (max)

This proposal is **cleared within the provided array area** - with respect to radio link infrastructure operated by the local energy networks.

JRC analyses proposals for wind farms on behalf of the UK Fuel & Power Industry. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.

In the case of this proposed wind energy development, JRC does not foresee any potential problems based on known interference scenarios and the data you have provided. However, if any details of the wind farm change, particularly the disposition or scale of any turbine(s), it will be necessary to re-evaluate the proposal.

In making this judgement, JRC has used its best endeavours with the available data, although we recognise that there may be effects which are as yet unknown or inadequately predicted. JRC cannot therefore be held liable if subsequently problems arise that we have not predicted.

It should be noted that this clearance pertains only to the date of its issue. As the use of the spectrum is dynamic, the use of the band is changing on an ongoing basis and consequently, developers are advised to seek re-coordination prior to considering any design changes.

Regards

Wind Farm Team

Friars House Manor House Drive Coventry CV1 2TE United Kingdom

Office: 02476 932 185

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On Thu. 10 Jul at 9:35 AM. Jennifer, goodheir

[Redacted]

wrote:

Hi Heather,

Thanks for your quick reply.

Normally, individual turbine positions come to us via the Development Specification and Layout Plan (DSLP), post consent. Therefore, we will be unable to provide these for this consultation.

I will ask the developer if they can provide site centre coordinates / radius and come back to you when we have their response.

Kind regards,

Jenny

Jennifer Goodheir (pronouns she/her)
Casework Officer, Marine Directorate - Licencing Operations
Team (MD - LOT)

Scottish Government | 5 Atlantic Quay | 150 Broomielaw | Glasgow | G2 8LU

E: [Redacted]

Please note - I do not work on a Friday. My working hours are between 8am and 4pm Monday to Thursday.

The Scottish Government

\*

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From:

Sent:

O9 July 2025 16:06

To:

Joint Radio Company

[Redacted]; [Redacted]

Subject: RE: Stoura Offshore Wind Farm – SCOP-0071 - Shetland Offshore Wind Limited –

Consultation on Request for Scoping Opinion – Response Required by 07 August

2025

#### Good afternoon,

Thank you for your request for further information to inform the JRC response to the above consultation

We note some of the requested information is contained within the Scoping Report found via the link Request for Environmental Impact Assessment Scoping Opinion - Stoura Offshore Wind Farm – approximately 52 km east of Shetland - SCOP-0071 | marine.gov.scot.

- the name of the development: Stoura Offshore Wind Farm
- **hub height and rotor diameter for each turbine:** The WTG maximum hub height and rotor diameter is provided in Table 3.2, page 20, of the scoping report.

JRC has also requested **turbine locations (NGR values: easting and northing).** However, as with other wind farm developments at this stage, the exact locations of the wind turbines are still being considered, and the design envelope is broad. The developer has identified the location of the wind farm array area in Figure 3.1 page 29 of the scoping report. Will co-ordinates of the array area be sufficient for JRC to proceed with a consultation response?

Kind regards,

Jenny

Jennifer Goodheir (pronouns she/her)

Casework Officer, Marine Directorate - Licencing Operations Team (MD - LOT)

Scottish Government | 5 Atlantic Quay | 150 Broomielaw | Glasgow | G2 8LU

E: [Redacted]

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#### Marine Directorate | Marine Directorate Blog | @ScotGovMarine | Marine Directorate LinkedIn

From: Joint Radio Company <wftracker@jrc.co.uk>

**Sent:** 09 July 2025 14:13

To: MD Marine Renewables <md.marinerenewables@gov.scot>

**Cc:** [Redacted] [Redacted]

Subject: Re: Stoura Offshore Wind Farm - SCOP-0071 - Shetland Offshore Wind Limited - Consultation on

Request for Scoping Opinion – Response Required by 07 August 2025

Dear Sir / Madam,

Planning Ref: SCOP-0071

**Location: Stoura Offshore Wind Farm** 

Proposal: Offshore Wind Farm

Link: Request for Environmental Impact Assessment Scoping Opinion and Habitats Regulations Appraisal Screening Response - Stoura Offshore Wind Farm - approximately 52 km east of Shetland - SCOP-0071 | marine.gov.scot

Site at NGR / IGR: NOT SUPPLIED

**Hub Height: NOT SUPPLIED** 

**Blade Radius: NOT SUPPLIED** 

JRC analyses proposals for wind (and other) developments on behalf of the UK Energy Industry. We assess the potential of such developments to interfere with radio systems operated by UK and Irish Energy Industry companies in support of their regulatory operational requirements.

In order to fully assess this proposal we require the name of the development, turbine locations (NGR values: easting and northing), hub height and rotor diameter for each turbine.

Therefore JRC OBJECTS to the proposed development \*\*\* due to insufficient information \*\*\*.

However, JRC are still willing to work with developers in order to clear as many developments as possible, including those that may initially fall within the coordination zone. For more information about what to do next, please contact us using the link at the bottom of this email.

#### NOTE:

The protection criteria determined for Energy Industry radio systems can be found atWind Farm Coordination | Joint Radio Company | JRC

The JRC objection shall be withdrawn after simple analysis shows no issues; when a satisfactory coordination has been achieved and the zone of protection is implemented; or when an appropriate mitigation agreement is in place.

Please provide the required information in order for us to undertake the necessary analysis.

Regards

Wind Farm Team

Friars House Manor House Drive Coventry CV1 2TE United Kingdom

Office: 02476 932 185

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# Marine Directorate - Marine Analytical Unit (MAU)



#### **Stoura Offshore Wind Farm**

# Marine Analytical Unit ("MAU") Response Marine Directorate

The Stoura Offshore Wind Farm Development scoping report includes descriptions of a range of potential impacts. This response focuses only on the assessment of social and economic impacts.

MAU recommend that a full Socio-Economic Impact Assessment be carried out. MAU provide general advice on how this could be delivered in Annex 1. Please note that Annex 1 provides advice on the kind of points that MAU look for from assessments of socioeconomic impacts. However, this advice is not prescriptive nor exhaustive, but includes examples of best practice.

#### 1. Overview

MAU note that the applicant states they will undertake desk-based analysis to assess socio-economic impacts.

#### 1.1. Study areas

MAU note that Shetland has been identified as the local study area, whilst Scotland and the United Kingdom ("UK") will also be assessed due to the likelihood that a portion of labour will be sourced outside the local study area. It is welcomed that a long-list of ports will be considered as hypothetical epicentres of impact for construction and for operations and maintenance, Lerwick will be considered as an epicentre of impact. Please ensure that the long-list of ports for construction impacts focuses on the most likely ports.

#### 1.2. Consultation, stakeholder engagement, and primary data collection

MAU understands that the applicant has undertaken consultation with impacted local authorities, and that the socio-economics assessment will include information provided within the public consultation process on community impacts and perceptions of the development. MAU understands from Chapter 5 that a range of statutory and non-statutory stakeholder engagement and consultation has been carried out for the proposed development, with further stakeholder engagement planned during and post application. None of the completed consultation so far appears to have been with local communities.

The applicant notes in the socio-economic impact chapter that a "description of socio-cultural conditions in Shetland will be informed via consultation activities." However no other details are provided about the methodology of future engagement with local communities and how this information will be ascertained. MAU welcomes consulting local communities around potential impacts as it is best practice for local stakeholders (including local communities) to be consulted and engaged on the

range of potential socio-economic impacts this development could present to support the EIA. However, further details in regards to how this information will be collected and from whom would be beneficial. In addition collection of this kind of evidence should be conducted by those with the appropriate skills and expertise in social research methods.

Details are provided in Section 2 of Annex 1 regarding how to undertake stakeholder engagement. This guidance also explores how an applicant can conduct stakeholder mapping to identify potential stakeholders affected. It is important for an applicant to consider how to gather the views of the general public as well as informing them about a development. Please note that this approach is important not only for the assessment of socio-cultural impacts, but also other social and economic impacts (e.g. communities' views on potential impacts on employment, housing, local services).

Academic research (e.g. Aitken et al 2016; Devine-Wright 2011; Firestone et al 2012; Howell 2018; Jijelava and Vanclay 2028; Langbroek and Vanclay 2012; Vanclay 2020) shows that it is important to involve local communities in social impact assessments and address any concerns communities might have. This can decrease the delivery risks for projects. MAU believe that considering such best practice engagement with stakeholders and communities is proportionate to large infrastructure projects, such as offshore wind farms.

#### 1.3. Data sources

A range of additional data sources for the developer's use are detailed in Section 4 of Annex 1. Please use the most up-to-date data sources.

#### 2. Scoping of impacts

#### 2.1. Social impacts

MAU note the scoping in of socio-economic and socio-cultural impacts during each phase of the project, using qualitative assessment. Some detail is provided about what this information will include – e.g. local business demographics, key sectors, local community demographics, housing and service provision. While some data sources are discussed, more detail would be welcomed to gain a better understanding of how the application will assess the full range of impacts.

The assessment should be proportionate to the size of the development and should consider the proposed mitigation measures. MAU believe engagement with local stakeholders would be proportionate and best practice in this case to support the socio-economic assessment of the EIA.

#### 2.2. Economic impacts

MAU agree with the proposed approach for assessing economic impacts, in particular that the assessment will include direct, indirect and induced impacts for all phases of the project. MAU recommends that the assessment considers leakage, deadweight, displacement and substitution and that sensitivity or scenario analysis is

performed to account for risk, uncertainty and optimism bias. Please refer to our guidance shown in Annex 1 for further information.

The scoping report outlines that employment impacts will be assessed at each phase of the project. It would be useful if this is in full-time equivalent or in terms of years of employment and number of jobs. If it is possible to supply additional information about the types of jobs that are expected to be created (e.g. part-time, full-time, skilled, unskilled etc) and how these compare to the existing jobs in the study area, this will add further depth to the analysis.

MAU recommends that distributional effects are considered as part of the assessment, see Section 3 of Annex 1 for further information.

MAU expect to see a detailed description of the methodology used to assess economic impacts in the assessment, including specific details about the methodological approach taken and any key assumptions that underpin any estimates. This may be supplied in a technical annex if necessary.

#### 3. Conclusions

MAU broadly agrees with the proposed approach for assessing economic and social impacts. However, MAU recommends that distributional effects are considered as part of the assessment at each phase of the development. MAU would like to see greater detail in regards to how the applicant intends to assess impacts, and fill in identified evidence gaps

#### References

Aitken, M., Haggett, C. and Rudolph, D. (2016) Practices and rationales of community engagement with wind farms: awareness raising, consultation, empowerment. Planning Theory & Practice, 17(4): 557-576. https://doi.org/10.1080/14649357.2016.1218919

Devine-Wright, P. (2011) Enhancing local distinctiveness fosters public acceptance of tidal energy: A UK case study. Energy Policy, 39(1): 83-93. https://doi.org/10.1016/j.enpol.2010.09.012

Firestone, J., Kempton, W., Blaydes Lilley, M. and Samoteskul, K. (2012) Public acceptance of offshore wind power: does perceived fairness of process matter?, Journal of Environmental Planning and Management, 55(10): 1387-1402. https://doi.org/10.1080/09640568.2012.688658

Howell, R. (2018) PhD Thesis "In sight and in mind: Social implications of marine renewable energy". University of Edinburgh. Available at <u>In sight and in mind: social implications of marine renewable energy</u> (ed.ac.uk) (accessed 10/03/2023).

Jijelava, D. and Vanclay, F. (2018) How a large project was halted by the lack of a social Licence to operate: Testing the applicability of the Thomson and Boutilier model, in Environmental Impact Assessment Review 73: 31-40. <a href="https://doi.org/10.1016/j.eiar.2018.07.001">https://doi.org/10.1016/j.eiar.2018.07.001</a>

Langbroek, M. and Vanclay, F. (2012) Learning from the social impacts associated with initiating a windfarm near the former island of Urk, The Netherlands, Impact Assessment and Project Appraisal 30(3): 167-178. https://doi.org/10.1080/14615517.2012.706943

Vanclay, F. (2020) Reflections on Social Impact Assessment in the 21<sup>st</sup> century, Impact Assessment and Project Appraisal 38(2): 126-131. https://doi.org/10.1080/14615517.2019.1685807

# Annex 1: General Advice for Socio-Economic Impact Assessment Marine Analytical Unit (MAU) Marine Directorate March 2025

This document sets out some suggestions for delivering socio-economic impact assessment drawing on the professional expertise of the Marine Analytical Unit (MAU), Marine Directorate.

#### Section 1. Some general best practice tips

- Take a proportionate approach to SEIA in line with the size of the development
- Consider offshore and onshore components of the development in the same assessment.
- Employ experts to design and carry out the assessment. The relevant expertise would include:
  - Social research and economist training, qualifications and experience
  - Familiarity and experience with appropriate methods for each discipline (including economic appraisal, social research methods such as surveys, sampling, interviews, focus groups and participatory methods)
- Consider potential secondary socio-economic impacts of any changes that affect the other relevant receptor groups covered in the wider EIA e.g. commercial fisheries, cultural heritage and archaeology and visual impacts.
- Include consideration of the cumulative impact of multiple offshore developments.
- Outline the rationale for scoping out impacts that are deemed to be minimal, including any evidence or analysis that has been used. If this is not provided it can be difficult for MAU to understand why impacts have been scoped out and we may suggest scoping them back in.

#### Section 2. Key components of a Socio-economic Impact Assessment

We set out below what we consider to be the key steps to an assessment. We recommend a combined approach so that social and economic impacts are covered together in the assessment, whilst acknowledging that different methodologies for social and economic impacts assessment are needed at certain stages, and that the two disciplines are distinct.

We wish to highlight the importance of stakeholder engagement throughout the assessment, and the use of social research methods (see Methods Toolkit referenced at the end of this Annex) to gather primary data and first hand perspectives from particular groups and communities that are affected. These are helpful in order to better understand the nature and degree of impacts that might be caused by changes that are expected occur. A change in itself may or may not bring about tangible impact, impacts may vary for different people or be perceived in different ways, are affected by individual values and attitudes, and conditioned by the context.

Stakeholder engagement and data collection can occur at a number of stages in the SEIA process and may involve similar methodologies but there are important differences to note. The primary aims of stakeholder engagement are to inform, consult or involve key stakeholders, and to communicate information and gather feedback. Data collection, in contrast is a more rigorous analytical process involving:

- Setting out a planned methodology in advance with clear objectives of what the applicant wishes to achieve through data collection
- Sampling strategies that take account of the demographic variations in the population and the need to include difficult to reach groups
- Robust methods to collect information from people in a neutral and unbiased way
- Awareness of how data will be analysed and reported on to obtain and disseminate robust conclusions
- Taking account of research ethics including informed consent, and data protection requirements under GDPR

The stages below are divided into the activities that we suggest are **before** the developer submits a request for a scoping opinion and those that are done **after** the scoping phase. We recommend an iterative approach which means that steps inform each other, information is built up over time, and some steps may be repeated or done in a different order.

The key steps should include:

### **Pre-scoping activities**

- 1) **Getting started:** Employ economist and social research experts and work with them to develop a plan for the SEIA that sets out data requirements, and the proposed social and economic data collection and impact assessment methodologies, timescales, any data protection considerations, risk assessment and ethical issues that might arise from the work.
- 2) Develop a detailed description of the planned development and consider the project phases where socio-economic impacts might be experienced (covering development, construction, operation and maintenance and decommissioning phases). Start to map out potential socio-economic impacts and initial consideration of areas of impact on land that will need to be covered.
- **3) Initial scoping of impacts:** develop a broad list of potential impacts informed by experts (including social researcher, economist, local representatives from key groups, community stakeholders and others).
- 4) Define potential impact areas on land taking into account locations and connections between activities. Different types of impacts may be experienced at different geographic levels, some in the area nearest the landfall or the nearest coastline to the development at sea, and others much further away (at Scotland level, UK level and internationally). The geographical scale at which social impacts are experienced may be different for social impacts compared with economic impacts. There may be multiple epicentres from which impacts radiate

including the site of the development, land-based areas such as landfall and grid connections, construction bases and places from which the development is visible. Activities that take place in the sea are also relevant for defining the impact area on land, for example the location of fishing activity and ports where fish are landed. The definition of the impact area will inform which communities and which sectors are included in the assessment and vice versa, so this exercise needs to be done iteratively with step 3, the initial scoping of impacts.

5) Stakeholder mapping is required to identify all the people, groups and stakeholders who may be affected by the development and is a first step in order to conduct effective stakeholder engagement. This exercise is informed by the definition of the impact area. A broad approach is recommended. Stakeholders are likely to include local communities, businesses, workers, other users of the sea, interest groups, community councils and so on.

Steps 4 and 5 may lead to a change in the list of potential impacts so this will need refined/checked.

- 6) Stakeholder engagement (with those affected by the development, sea users, communities etc) is a key requirement of SEIA that is done at different stages of the process. We recommend doing some initial stakeholder engagement before submitting the scoping report. Stakeholder engagement will fulfil a number of requirements:
  - Provide information about the development so that those who might be affected are able to make an informed judgement about potential impacts
  - Present and refine list of potential impacts based on feedback identify impacts that are most relevant and add any additional ones that are identified
  - Collect initial data/ insights from stakeholders on what potential socioeconomic impacts (to be developed later)
  - Build relationships with the community and key groups affected for later stages of the SEIA process so that they can understand the decisions making process and how they can influence it.

There are many **participatory methodologies** that can be used for effective stakeholder engagement that provide a deliberative space for community discussions.

This stage may also require the setting up of governance structures and a community liaison officer. **Early engagement** with those who might be affected is very important, as is meaningful and inclusive engagement where people feel that they are being listened to and that their feedback will be acted upon. It is important to set out clearly how stakeholder engagement is being done for the SEIA specifically.

7) Gather contextual information to develop a social and economic profile of the area prior to the development that will help with setting the baseline and impact

prediction, identifying potential industries and communities that might be affected and sources of data that can be used in the assessment. This might include primary data collection using social research methods (such as surveys, interviews, focus groups) as well as desk based analysis (of existing data sets such as fishing data, population data).

Primary data collection may occur alongside participatory activities (e.g. engagement events) but must be done in a rigorous and systematic fashion and the findings should be robustly analysed and incorporated into the SEIA. Impacts that are identified for the other receptors in the wider EIA may also have socioeconomic consequences and so it may be important to include these in the SEIA.

8) Produce list of anticipated impacts to be covered in the scoping report setting out the range of potential impacts that could occur, building on what has already been done using data and insights that have been collected from various activities described above. Details of the methods that have been used should be included to enable Marine Directorate to determine if the analysis is based on a robust and appropriate approach. Justification should be provided for any impacts that are scoped in or out. This could be based on suggestions made by stakeholders and the public during stakeholder engagement or an assessment based on the analysis of primary and secondary data.

It is helpful if the scoping report includes details on the approach to be used for the SEIA including methods for data collection, planned stakeholder engagement activities and data-sets to be used.

# Post scoping activities for the SEIA

The scoping opinion will advise on the final list of socio-economic impacts to be assessed in the SEIA. This may require additional data collection/ social research to enable a more rigorous assessment of a narrower set of anticipated impacts. It may also require further stakeholder engagement in order to check the significance of impacts with different groups, and the acceptability of mitigation options.

The data and information that has been collected throughout the scoping phase will be used to conduct steps 9, 10 and 11 below.

9) Conduct baseline analysis to assess the situation in the absence of the development, to provide a point of comparison against which to predict and monitor change. Appropriate social and economic measures should be used for the baseline and cover relevant issues (see section 4 for suggested data sources). Key stakeholders and other interested parties including affected communities and sectors may be aware of baseline data to be included, and this can be explored in the participatory approaches described above. The findings from social research can also be included in the baseline. Note that baseline data can be presented in the scoping report but is also the first stage of the SEIA and so should be included in the SEIA report.

# 10)Predict impacts and assess their significance (otherwise known as impact appraisal or options appraisal)

Through analysis, estimate the social and economic changes and their expected impacts, considering any alternative development options and how significant the impacts might be. This is the core part of the assessment and forms the main part of the assessment report. Different methodologies and both primary and secondary data inform this part of the exercise.

Different phases of the development should be covered (development, construction, operation and maintenance) and also transitions between phases (if relevant).

The knock on socio-economic consequences of impacts in other parts of the EIA assessment should be assessed here, such as the impact on commercial fisheries, and impacts on related industries such as tourism could also be included.

It is important to consider distribution of impacts among different social groups (covering protected quality characteristics, socio-economic groups and geographic area where relevant to do so).

Economic impact appraisal should include consideration of:

Direct, indirect and induced impacts;

Leakage, displacement and substitution effects;

Deadweight loss;

Cumulative impacts:

Sensitivity analysis to account for risk, uncertainty and optimism bias.

There are a range of methodologies for calculating direct, indirect and induced impacts. These include the appropriate use of multipliers, a local content methodology, stakeholder involvement and expert opinion.

Modelling approaches should be realistic, based on robust data, and avoid over promising the economic impacts.

All prices should be presented in real terms (excluding inflation) and should state which year the prices represent.

# 11) Development enhancement, mitigation strategy and complete SEIA report.

There may be an opportunity for adaptation or other approaches to mitigate potentially adverse impacts and to maximise positive opportunities. This may include engagement with the community to develop a strategy for enhancing benefits and mitigating against impacts; or development of a Community Benefit Agreement (CBA). Again these activities should be done collaboratively with stakeholders where relevant and appropriate.

The SEIA report should clearly set out the methods used in the assessment, justification for decision made such as scoping certain impacts in or out of the

assessment, and the approach to analysis. The report should cover the baseline analysis and results of the impact prediction or appraisal, and distributional impacts . Social and economic impacts can be set out separately (where this makes sense) and together where they overlap.

It is good practice for the report to be reviewed by the people (i.e. the wider group of stakeholders and communities) who were involved in providing data for its production.

# Section 3. Examples of different types of socio-economic impacts

In the literature social and economic impacts are defined in many different ways. Sometimes social and economic impacts are covered separately, whilst other sources refer to socio-economic impacts.

The following table sets out some commonly identified socio-economic impacts.

# Examples of Socio-economic Impacts from Glasson 2017<sup>1</sup>

#### 1. Direct economic:

- GVA
- employment, including employment generation and safeguarding of existing employment;
- characteristics of employment (e.g. skill group);
- labour supply and training; and
- other labour market effects, including wage levels and commuting patterns.

# 2. Indirect/induced/wider economic/expenditure:

- employees' retail expenditure (induced);
- linked supply chain to main development (indirect);
- labour market pressures;
- wider multiplier effects;
- effects on existing commercial activities (e.g. tourism; fisheries);
- · effects on development potential of area; and

# 3. Demographic:

- changes in population size; temporary and permanent;
- changes in other population characteristics (e.g. family size, income levels, socio-economic groups); and
- · settlement patterns

### 4. Housing:

various housing tenure types;

<sup>&</sup>lt;sup>1</sup> Glasson J (2017a) "Socio-economic impacts 2: Overview and economic impacts" in Therivel R and Wood G (eds.), Methods of Environmental and Social Impact Assessment, Abingdon: Routledge

- public and private;
- house prices and rent / accommodation costs;
- homelessness and other housing problems; and
- personal and property rights, displacement and resettlement

### 5. Other local services:

- public and private sector;
- educational services;
- health services; social support;
- others (e.g. police, fire, recreation, transport); and
- local authority finances

#### 6. Socio-cultural:

- lifestyles/quality of life;
- gender issues; family structure;
- social problems (e.g. crime, ill-health, deprivation);
- human rights;
- community stress and conflict; integration, cohesion and alienation; and
- community character or image

#### 7. Distributional effects:

Distributional analysis is a term used to describe the assessment of the impact of interventions on different groups in society. Interventions may have different effects on individuals according to their characteristics such as income level or geographical location, effects on specific groups in society (eg: by virtue of gender, age, religion, language, ethnicity and location); environmental justice.

# Section 4: Useful Data Sources for Socio-Economic Impact Assessments

Name	Summary	Link to Source
Statistics.gov.scot	Contains a wide range of data by local authority and other geographic breakdowns. Has a search by subject and area option.	statistics.gov.scot
Marine Economic Statistics	Annual economic statistics publication including GVA and employment data for marine economy sectors.	Marine economic statistics - gov.scot (www.gov.scot)

Scottish Sea Fisheries Statistics  Scottish Shellfish Farm Production Survey	Provides data on the tonnage and value of all landings of sea fish and shellfish by Scottish vessels, all landings into Scotland, the rest of the UK and abroad, and the size and structure of the Scottish fishing fleet and employment on Scottish vessels.  Statistics on employment, production and value of shellfish from Scottish shellfish farms.	Sea fisheries statistics - gov.scot (www.gov.scot)  Scottish shellfish farm production surveys - gov.scot	
Scottish Annual Business Statistics	Scottish Annual Business Statistics (SABS) presents estimates of employment, turnover, purchases, Gross Value Added and labour costs. Data are provided for businesses that operate in Scotland. Data are classified according to the industry sector, location and ownership of the business.	Business and innovation statistics - gov.scot	
Sub-Scotland Economic Statistics Database	The Sub-Scotland Economic Statistics Database provides economic, business, labour market and population data for Scotland, and areas within Scotland.	Sub-Scotland Economic Statistics Database - gov.scot (www.gov.scot)	
Nomis Official Labour Market Statistics	Labour market statistics including data on employment, unemployment, qualifications, earnings etc.	Nomis - Official Labour Market Statistics (nomisweb.co.uk)	
Economics of the UK Fishing Fleet 2020	Economic estimates at UK, home nation and fleet segment level for the UK fishing fleet. The estimates are calculated based on samples of fishing costs and earnings gathered by Seafish as part of the 2020 Annual Fleet Economic Survey.	Economics of the UK Fishing Fleet 2020 — Seafish	
Scotland's Census, National Records of Scotland	Census data that provides information about the characteristics of people and households in the country.	Scotland's Census   National Records of Scotland (nrscotland.gov.uk)	

Scottish Index of Multiple Deprivation	Collection of documents relating to the Scottish Index of Multiple Deprivation - a tool for identifying areas with relatively high levels of deprivation.	Scottish Index of Multiple Deprivation 2020 - gov.scot (www.gov.scot)	
National Records of Scotland mid-year population data	Population estimates on an annual basis for Scotland and its constituent NHS Board and council areas.	Mid-Year Population Estimates   National Records of Scotland (nrscotland.gov.uk)	
The Green Book	HM Treasury guidance on how to appraise and evaluation policies, projects and programmes.	The Green Book: appraisal and evaluation in central government - GOV.UK (www.gov.uk)	
The Magenta Book	HM Treasury guidance on evaluation. Chapter 4 provides specific guidance on data collection, data access and data linking.	The Magenta Book - GOV.UK (www.gov.uk)	
Enabling a Natural Capital Approach (ENCA)	Supplementary guidance to The Green Book. ENCA resources include data, guidance and tools to help understand natural capital and know how to take it into account.	Enabling a Natural Capital Approach (ENCA) - GOV.UK (www.gov.uk)	

# **Section 5: Further sources of guidance:**

HM Treasury guidance on how to appraise and evaluate policies, projects and programmes: The Green Book: appraisal and evaluation in central government

Best practice in Social Impact Assessment according to the International Association for Impact Assessment: <u>Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects</u>

The project A two way Conversation with the People of Scotland on the Social Impacts of Offshore Renewables (CORR/5536) has developed elements of a conceptual framework on social values that can be used to support and inform existing processes for assessing the potential social impacts of offshore renewables plans: Offshore renewables - social impact: two way conversation with the people of Scotland

Best practice guidance for assessing the socio-economic impacts of OWF developments: Guidance on assessing the socio-economic impacts of offshore wind farms (OWFs)

A toolkit of methods available to assist developers, consultants, and researchers carrying out socio-economic impact assessments: Methods Toolkit for Participatory Engagement and Social Research - gov.scot (www.gov.scot)

# Maritime and Coastguard Agency





**Vaughan Jackson** 

Maritime and Coastguard Agency UK Technical Services - Navigation Bay 2/24 Spring Place 105 Commercial Road Southampton SO15 1EG

www.gov.uk/mca

Your Ref: SCOP-0071

Date: 5<sup>th</sup> August 2025

Jennifer Goodheir
Marine Directorate – Licensing Operations Team
Scottish Government
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

Via email: MD.MarineRenewables@gov.scot

Dear Jennifer,

# REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 AND MARINE LICENCE APPLICATIONS FOR SHETLAND OFFSHORE WIND LIMITED, REGARDING STOURA OFFSHORE WIND FARM - UNDER THE EIA REGULATIONS.

The MCA has reviewed the scoping report provided by Shetland Offshore Wind Limited for the Stoura Offshore Wind Farm (OWF) as detailed in your correspondence of 8<sup>th</sup> July 2025 and would like to comment as follows:

The Environmental Impact Report should supply detail on the possible impact on navigational issues for both commercial and recreational craft, specifically:

- Collision Risk.
- Navigational Safety.
- Visual intrusion and noise.
- Risk Management and Emergency response.
- Marking and lighting of site and information to mariners.
- Effect on small craft navigational and communication equipment.
- The risk to drifting recreational craft in adverse weather or tidal conditions.
- The likely squeeze of small craft into the routes of larger commercial vessels.

The development area carries a moderate amount of traffic with several important commercial shipping routes to/from UK ports and the North Sea. Attention needs to be paid to routing, particularly in heavy weather so that vessels can continue to make safe passage without large-scale deviations. The likely cumulative and in combination effects on shipping routes should be considered for this project. It should consider the proximity to other windfarm developments, other infrastructure, and the impact on safe navigable sea room.



A Navigational Risk Assessment (NRA) will need to be submitted in accordance with MGN 654. This NRA should be accompanied by a detailed MGN 654 Checklist which can be found at <a href="https://www.gov.uk/guidance/offshore-renewable-energy-installations-impact-on-shipping">https://www.gov.uk/guidance/offshore-renewable-energy-installations-impact-on-shipping</a>

MCA is content with the presentation of 28 days AIS only data for the winter and summer periods as summarised in 10.4.2.16 to inform this scoping report on this occasion. However, going forward a vessel traffic survey to the standard of MGN 654 will need to be carried out. This will involve coverage of least 28 days which is to include seasonal data (two x 14-day surveys) collected from a vessel-based survey using AIS, radar and visual observations to capture all vessels navigating in the study area. We would also welcome the addition of 12 months up to date AIS data to help further inform vessel activity.

We note in section 4.7, and section 10.2.8 that Cumulative Effects Assessment will be carried out. As highlighted in 10.2.8.1, the proximity to other offshore windfarms in particular Arvan offshore wind farm will need to be fully considered, with an appropriate assessment of the distances between OREI boundaries and shipping routes as per MGN 654.

We acknowledge that wet storage options are yet to be fully developed as detailed in section 3.8. As a reminder to the Applicant any wet storage solutions should be discussed in consultation with relevant maritime stakeholders including the MCA and Northern Lighthouse Board (NLB). We welcome the early engagement with Lerwick Port Authority as captured in 5.3.1.2. We would also expect the Navigation Risk Assessment to be updated to include the proposals for any wet storage once they are known.

The Development Specification and Layout Plan referred to in section 10.2.6.3 and table B.1 as mitigation ID001, will require MCA approval prior to construction to minimise the risks to surface vessels, including rescue boats, and Search and Rescue aircraft operating within the site. Any additional navigation safety and/or Search and Rescue requirements, as per MGN 654 Annex 5, will be agreed at the approval stage.

It is noted that this scoping report incorporates both the offshore array area and export cable corridor route. As such attention should be paid to cabling routes and where appropriate burial depth for which a Burial Protection Index study should be completed and subject to the traffic volumes, an anchor penetration study may be necessary. If cable protection measures are required e.g., rock bags or concrete mattresses, the MCA would be willing to accept a 5% reduction in surrounding depths referenced to Chart Datum. This will be particularly relevant where depths are decreasing towards shore and potential impacts on navigable water increase, such as at the HDD location.

In section 10.2.7.1, compliance with regulatory expectations on moorings for floating wind and marine devices (HSE and MCA, 2017) is identified as relevant guidance for floating infrastructure. This guidance should be followed, and a Third-Party Verification of mooring arrangements will be required.

Particular consideration will need to be given to the implications of the site size and location on SAR resources and Emergency Response Co-operation Plans (ERCoP). The report must recognise the level of radar surveillance, AIS and shore-based VHF radio coverage and give due consideration for appropriate mitigation such as radar, AIS receivers and in-field, Marine Band VHF radio communications aerial(s) (VHF voice with Digital Selective Calling (DSC)). A SAR checklist will also need to be completed in consultation with MCA, as per MGN 654 Annex 5 SAR requirements.



MGN 654 Annex 4 requires that hydrographic surveys should fulfil the requirements of the International Hydrographic Organisation (IHO) Order 1a standard, with the final data supplied as a digital full density data set, and survey report to the MCA Hydrography Manager. Failure to report the survey or conduct it to Order 1a might invalidate the Navigational Risk Assessment if it was deemed not fit for purpose.

It is noted that the use of both HVAC and HVDC transmission infrastructure is discussed in this scoping report. We would like to remind the applicant when considering this that in the case of HVDC installation, consideration must be given to the effect of electromagnetic deviation on ships' compasses. The MCA would be willing to accept a three-degree deviation for 95% of the cable route. For the remaining 5% of the cable route no more than five degrees will be attained. If an HVDC cable is being used, we would expect the applicant to do a desk based compass deviation study based on the specifications of the cable lay proposed and assess the effect of EMF on ship's compasses. MCA may request for a deviation survey post the cable being laid; this will confirm conformity with the consent condition. The developer should then provide this data to UKHO via a hydrographic note (H102), as they may want a precautionary notation on the appropriate Admiralty Charts (actions at a later stage depending upon the desk-based study and post installation deviation survey).

# Section 10.2.12 - Scoping Questions to Consultees:

1- Do you agree that the guidance proposed is suitable and sufficient?

Yes.

2- Do you agree that key data sources have been included to inform the Shipping & Navigation Chapter of the EIA?

Yes. This is on the understanding that the further MGN 654 compliant traffic data is obtained and incorporated into the Navigation Risk Assessment.

3- Do you agree that the study area defined for the NRA is suitable and sufficient (noting that the requirements of MGN 654 have been applied in the proposed approach)?

Yes.

4- Do you agree that the methodology outlined for undertaking the risk assessment is suitable, including on a cumulative level?

Yes.

5- Do you agree that all potential impacts have been identified for shipping and navigation users?

At this stage we are content. The full List of risk controls and associated mitigation measures will be identified during the NRA process of consultation with navigation stakeholders and hazard analysis.



6- Do you agree with the suitability of the proposed mitigation measures?

Yes.

7- Are there any other issues related to Shipping and Navigation that should be identified for this project?

We remain content at this stage that the shipping and navigation issues that should have been identified have been so. Any further issues raised by stakeholders as the project progresses should be addressed accordingly.

On the understanding that the Shipping and Navigation aspects are undertaken in accordance with MGN 654 and its annexes, along with a completed MGN checklist, MCA is likely to be content with the approach.

Yours sincerely,

# [Redacted]

Vaughan Jackson Offshore Renewables Project Lead UK Technical Services Navigation



# Marine Directorate – Science, Evidence, Data and Digital (MD-SEDD)



E: MD-SEDD-RE Advice@gov.scot

JENNIFER GOODHEIR

CASEWORK OFFICER

LICENCING OPERATIONS TEAM

MARINE DIRECTORATE

SCOTTISH GOVERNMENT

07/08/2025

RE: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Scoping Opinion Consultation.

Advisors from the SEDD Marine Renewables & Ecology Team have reviewed the above request and provide the following advice.

# **Commercial fisheries advice**

General:

MD-SEDD advise that the cumulative effects assessment takes into account any nearby Marine Protected Areas and other fisheries management areas with restricted fishing activity as potential projects that could cause cumulative effects for commercial fisheries.

When using MMO VMS datasets to produce spatial maps of fishing activity, MD-SEDD advise that the data are used to present figures showing both fishing effort (kW per hour) and also average VMS value. Areas of high value may not necessarily equate to areas of high effort so it is advised to visualise the fishing activity using both indices. This will provide further information about the commercial fisheries baseline and help in the assessment of possible displacement of fishing effort.

MD-SEDD recommended at this stage producing a list of commercial fisheries receptors based on the commercial fisheries baseline, to identify the key fisheries in the study area and make it clear which receptors be included and assessed in the EIA. This will also aid consultation with the fishing industry on whether all fishing fleets have been identified.







# Mitigation:

MD-SEDD advise that the list of Designed In Mitigation in Section 10.1.6.1 appears to be missing relevant plans which are listed as Designed In Mitigation in other chapters, such as the Cable Plan, Cable Burial Risk Assessment, Lighting and Marking Plan, safety zones and dropped object processes. MD-SEDD therefore advise the list of Designed In Mitigation for commercial fisheries is amended to include the above points, with a description of the use and relevance of the mitigation in relation to commercial fisheries.

MD-SEDD note that cable protection may be required in both the export cable corridor and the offshore array area. The fishing industry have raised concerns over the use of concrete mattresses in open areas of seabed and therefore MD-SEDD advise that other methods such as rock placement are utilised first where possible, before the use of concrete mattresses. MD-SEDD also advise the rock protection follows the industry best practice guidance of using graded rocks and berms designed with 1:3 gradients to minimise gear snagging.

MD-SEDD note that boulder removal may be required during the site preparations. MD-SEDD advise that the location of large boulders that are relocated during construction and may pose a snagging risk for fishing gear must be disclosed to the fishing industry in a timely manner and in an accessible format. MD-SEDD also advise the final installed location of cables and project infrastructure is provided to the Kingfisher Information Service, Offshore Renewable and Cable Awareness project (KISORCA) in a timely manner.

#### Guidance:

MD-SEDD advise that new guidance on monitoring commercial fisheries in relation to offshore wind farms has recently been published by the Scottish Government and may be useful to the applicant during the EIA stage. The guidance can be found here: <a href="Offshore">Offshore</a> windfarms - monitoring impacts on the commercial fishing industry: good practice guidance - gov.scot





**Physical Processes advice** 

The MD-SEDD oceanography advisor has reviewed Chapter 8 of the

Stoura offshore wind farm (OWF) offshore scoping report focusing on potential physical

water column impacts. Responses to the scoping questions posed to consultees in Section

8.1.12 are below and standing advice on impact assessment of stratification in shelf seas is

also provided.

Do you agree with the spatial extent of the Study Area and rationale used to define it?

Yes

Are we missing any key data sources to inform the Physical and Coastal Processes Chapter

of the EIA?

No

Do you agree with the impacts scoped into and out of the EIA?

Yes

Do you agree with the proposed assessment methodology, in particular?

the proposed approach to assessing potential changes to stratification and frontal systems;

Yes. Please see standing advice on potential impact on shelf sea stratification below and

note MD-SEDD recommend comparing advective and mixing timescales within the region

using modelled temperature and salinity profiles (e.g. from SSW-RS or similar).

- the use of spreadsheet-based modelling to assess sediment disturbance activities;

Yes. MD-SEDD advise that the applicant detail the methodology used here as it is important

to have a robust assessment methodology to determine the fate of disturbed sediment and

whether it impacts the protected areas listed in the scoping report.

- the use of quantitative or semi-quantitative techniques to assess the potential for wave

blockage effects.

Yes

Do you agree with the suitability of the proposed mitigation measures?

Marine Laboratory, 375 Victoria Road, Aberdeen AB11 9DB www.gov.scot/marinescotland







Yes

Are there any other issues related to Physical Processes that should be identified for this Project?

No

## Standing advice on potential impact on shelf sea stratification

The proposed windfarm is in a region of shelf sea that is likely to experience seasonal stratification, and the potential changes to water column structure including magnitude, timing and extent of seasonal stratification should be considered in the EIA. MD-SEDD advise that this potential impact is relevant only to the operational phase of the windfarm and that outputs from numerical models should be used, at least for the baseline characterisation. MD-SEDD advise that the hydrodynamic model used needs to resolve the vertical water column, e.g. using a 3D or 1D-vertical model.

Water column structure is controlled by competing processes including atmospheric heating, freshwater input and mixing. An offshore windfarm could affect water column mixing by the structures generating turbulent wakes (e.g. Dorrell et al. 2022) and/or by altering the near sea surface wind speeds (e.g. Christiansen et al. 2022). MD-SEDD consider the structure induced mixing is more likely to have near-field effects, whereas the wind speed deficit is likely to have more subtle far-field effects.

MD-SEDD advise the baseline description should include a description of prevailing baseline water column conditions, including the timing of stratification and frontal positions. At least a 10 year period should be considered in order to take inter annual variability into account. The evolution of water column structure through a typical year should be described (e.g. using weekly to monthly temperature, salinity, density profiles) and when typically the region stratifies, and how key parameters change through the year (e.g. surface mixed layer depth and difference between sea surface and sea bottom temperature and/or potential energy anomaly).

For baseline characterisation MD-SEDD advise the use of existing 3D ocean model output, e.g. data available from the Copernicus Marine Service (e.g. <a href="https://doi.org/10.48670/moi-00059">https://doi.org/10.48670/moi-00059</a>) or the Scottish Shelf Waters Reanalysis Service (SSW-RS, <a href="https://tinyurl.com/SSW-Reanalysis">https://tinyurl.com/SSW-Reanalysis</a>) which has high on-shelf vertical resolution, and observational data, to







characterise the water column structure within the region throughout the year, paying particular attention to the onset/decay of seasonal stratification and fronts. The timing, extent and magnitude of stratification is naturally variable, and this variability should be described to enable the potential changes due to the wind farm to be assessed against this backdrop.

MD-SEDD advise the EIA investigates whether the potential change in mixing could delay the onset of stratification and what pathways to impact this could have on biological receptors, including primary production and the wider ecosystem. The potential impact of the structures (e.g. Dorrell et al. 2022) and the potential wind-wake impact (e.g. Christiansen et al. 2023) should be assessed.

MD-SEDD recognise there is no well recognised pragmatic and proportionate methodology or guidance available on how to assess the impact of wind farm structures on stratification within an EIA. In light of this, MD-SEDD advise a semi-analytical approach considering how turbine structures could change Turbulent Kinetic Energy (TKE) and assessments of the mixing and advective time scales in the region (e.g. Carpenter et al. 2016). The potential impact of these changes in TKE on the timing of stratification should be included, and whether fronts are likely to be affected.

MD-SEDD recognise there is no pragmatic method, or modelling guidance, available for modelling the potential impact of the wind wake, and therefore suggest that a qualitative assessment be performed using published research findings, e.g. Christiansen et al. (2022).

MD-SEDD advise that changes to mixing have the potential to impact productivity, as well as higher trophic levels, and this should be qualitatively assessed in the EIA. MD-SEDD advise the potential impact on ncMPAs, where fronts are a designated feature, should be included.

# References

Carpenter, J. R., Merckelbach, L., Callies, U., Clark, S., Gaslikova, L., and Baschek, B. 2016. Potential Impacts of Offshore Wind Farms on North Sea Stratification. PLOS ONE, 11: 1–28. Public Library of Science. <a href="https://doi.org/10.1371/journal.pone.0160830">https://doi.org/10.1371/journal.pone.0160830</a>







Christiansen, N., Daewel, U., Djath, B., & Schrum, C. (2022). Emergence of Large-Scale Hydrodynamic Structures Due to Atmospheric Offshore Wind Farm Wakes. Frontiers in Marine Science, 9. https://doi.org/10.3389/fmars.2022.818501

Dorrell, R. M., Lloyd, C. J., Lincoln, B. J., Rippeth, T. P., Taylor, J. R., Caulfield, C. P., Sharples, J., Polton, J. A., Scannell, B. D., Greaves, D. M., Hall, R. A., & Simpson, J. H. (2022). Anthropogenic Mixing in Seasonally Stratified Shelf Seas by Offshore Wind Farm Infrastructure. Frontiers in Marine Science, 9. <a href="https://doi.org/10.3389/fmars.2022.830927">https://doi.org/10.3389/fmars.2022.830927</a>

Yours sincerely,

# **Renewables and Ecology Team**

Marine Directorate - Science, Evidence, Data and Digital





# Defence Infrastructure Organisation, Ministry of Defence (MOD)



Application Ref: SCOP-0071

Our Reference: DIO10068246

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WS14 9PY
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E-mail: <u>DIO-Safeguarding-</u>

Wind@mod.gov.uk

19 August 2025

Dear Jennifer

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017 ("the EW 2017 Regulations")

THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017 ("the MW 2017 Regulations")

THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 ("the MW 2007 Regulations")

Collectively, "the EIA Regulations"

CONSULTATION UNDER REGULATION 12(4) OF THE EW 2017 REGULATIONS, REGULATION 14(4) OF THE MW 2017 REGULATIONS, SCHEDULE 4, REGULATION 6 OF THE MW 2007 REGULATIONS.

SCOP-0071 - Shetland Offshore Wind Limited - Stoura Offshore Wind Farm - approximately 52km east of Shetland

Thank you for consulting the Ministry of Defence (MOD) on the above Scoping Opinion request in respect of the Stoura Offshore Wind Farm development. The consultation was received by this office on 8 July 2025. I write to confirm the safeguarding position of the MOD regarding information that should form part of any Environmental Statement submitted in support of an application.

The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the MOD as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, technical sites such as the Military Low Flying System, or maritime defence assets and interests.

The submitted Stoura Offshore Wind Farm Offshore Scoping Report dated June 2025, covers offshore elements of the project that would generate and transmit electricity from the array area to landfall on the east coast of the Shetland Isles.

The Array would be located approximately 52km off the east coast of Shetland (north east of Lerwick) and would be comprised of:-

- Up to a maximum of 40 wind turbine generators (WTGs) along with associated floating foundations, anchors and moorings. Each WTG would have a maximum blade tip height of up to 385 metres to mean sea level (MSL):
- one offshore substation platform (OSP) or Subsea substation;
- array cables linking WTGs to the OSP or Subsea substation; and
- up to two export cables from OSP or Subsea substation to landfall on the east coast of the Shetland Isles.

Through the Stoura Offshore Wind Farm Offshore Scoping Report (the Scoping Report) the applicant identifies various relevant stakeholders, which include the MOD, and identifies some of the principal defence issues relevant to MOD consideration of the proposed development.

### Radar and Aviation

Section 10.3, Aviation and Radar, of the Scoping Report highlights some of the aviation and radar systems that may be affected by the proposed wind farm and specifically identifies the MOD as a potentially affected stakeholder.

At paragraph 10.3.4.8 the Scoping Report identified that the proposed turbines would be in RLOS to Air Defence (AD) radar systems deployed/sited at Remote Radar Head (RRH) Saxa Vord. At paragraph 10.3.7.3 the applicant commits to engaging with MOD on the potential effect on RRH Saxa Vord AD. Table 10.9 identifies that WTGs, by virtue of their size, location and rotation have the potential to impact on the operation and capability of AD radar systems and acknowledges that work on this impact is to be scoped into the forthcoming detailed assessment. The MOD would agree with that assessment and that further work on this issue should be carried out.

The Scoping Report identifies that the proposed turbines have the potential to affect and be detectable to Air Traffic Control (ATC), both military and civilian systems, in the wider region. At paragraph 10.3.4.7, "Military ATC Radars", it is identified that RAF Lossiemouth is the closest MOD aerodrome to the proposed development site which benefits from a deployed PSR. At Table 10.10, "Impacts proposed to be scoped out of the assessment for aviation and radar", the applicant notes that the proposed wind turbines are not within radar coverage of any military Air Traffic Control (ATC) PSR systems so this impact will be scoped out of further consideration within the Offshore EIA. MOD assessment has identified no need to object to this approach.

### **Navigation and Military Low Flying**

The potential for the development and the wind turbines to create physical obstacles to low flying aircraft has been acknowledged by the applicant within Section 10.3, Aviation and Radar and reference is made within Table 10.9 that a Lighting and Marking Plan (LMP) will be developed with all relevant aviation stakeholders and details of the proposed wind turbines will be included in aviation documentation and displayed on aviation charts. The MOD can confirm that the Stoura Offshore Wind Farm development area falls within Low Flying Area 14 (LFA 14) and would support the approach identified within Table 10.9. Provisions should be made in any final design submission for the lighting and marking of any structure with a height exceeding 50m above surface level, and this should be applied to all such structures whether they are in their final location, being constructed, in storage or in transit.

# **Unexploded Ordnance (UXO)**

The MOD acknowledge that the Scoping Report (at paras 3.7.1.5 & 3.7.1.6) recognizes the potential presence of UXO and that disposal sites is a relevant consideration to the installation of cables and other intrusive works that may be undertaken in the maritime environment. Para 3.7.1.6 confirms that any UXO clearance activities will be subject to their own marine licensing; the MOD would support this approach.

I trust this adequately explains our position on this matter.

Yours sincerely

[Redacted]

Wendy Talbot Assistant Safeguarding Manager

# National Air Traffic Services (NATS)

NATS Safeguarding < NATSSafeguarding@nats.co.uk> From:

Sent: 01 September 2025 15:03 MD Marine Renewables To:

Cc: Jennifer Goodheir; Matt Bell; Econsents Admin; Kirsty Black

Subject: RE: SCOP-0071 - Shetland Offshore Wind Limited - Stoura Offshore Wind Farm -

Consultation on Request for Scoping Opinion – Response Required by 07 August

2025 [SG37969]

SG37969 Stoura Offshore Wind Farm - TOPA Issue 1.pdf **Attachments:** 

Our Ref: SG37969

Dear Sir/Madam

We refer to the application above. The proposed development has been examined by our technical safeguarding teams and conflicts with our safeguarding criteria.

Accordingly, NATS (En Route) plc objects to the proposal. The reasons for NATS's objection are outlined in the attached report TOPA SG37969.

We would like to take this opportunity to draw your attention to the legal obligation of local authorities to consult NATS before granting planning permission. The obligation to consult arises in respect of certain applications that would affect a technical site operated by or on behalf of NATS (such sites being identified by safeguarding plans that are issued to local planning authorities).

In the event that any recommendations made by NATS are not accepted, local authorities are obliged to follow the relevant directions within Planning Circular 2 2003 - Scottish Planning Series: Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) (Scotland) Direction 2003 or Annex 1 - The Town And Country Planning (Safeguarded Aerodromes, Technical Sites And Military Explosives Storage Areas) Direction 2002.

These directions require that the planning authority notify both NATS and the Civil Aviation Authority ("CAA") of their intention. As this further notification is intended to allow the CAA to consider whether further scrutiny is required, the notification should be provided prior to any granting of permission.

It should also be noted that the failure to consult NATS, or to take into account NATS's comments when determining a planning application, could cause serious safety risks for air traffic.

Should you have any queries, please contact us using the details below.

Yours faithfully



**NATS Safeguarding** 

E: natssafeguarding@nats.co.uk 4000 Parkway, Whiteley, Fareham, Hants P015 7FL www.nats.co.uk









#### **NATS Internal**

From: MD.MarineRenewables@gov.scot < MD.MarineRenewables@gov.scot >

Sent: 25 August 2025 16:25

To: NATS Safeguarding <NATSSafeguarding@nats.co.uk>; MD.MarineRenewables@gov.scot

Cc: [Redacted] ; [Redacted] ; Econsents\_Admin@gov.scot; [Redacted]

Subject: [EXTERNAL] RE: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation

on Request for Scoping Opinion – Response Required by 07 August 2025 [SG37969]

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good afternoon,

MD-LOT are still awaiting NATS final response to the above consultation.

The initial response below advises 'We will notify you within 4-6 weeks of the results of our operational assessment. Only if this assessment shows the impact to be acceptable will we be able to withdraw our objection.'

For the avoidance of doubt, can you please advise if a further response is to be submitted or the response below (provided without the usual Technical and Operational Assessment attachment) is the response to the consultation for Stoura Offshore Wind Farm SCOP-0071?

MD-LOT would be grateful for clarification as soon as possible.

Thank you,

Jenny

Jennifer Goodheir (pronouns she/her)

Casework Officer, Marine Directorate - Licencing Operations Team (MD - LOT)

Scottish Government | 5 Atlantic Quay | 150 Broomielaw | Glasgow | G2 8LU

E: [Redacted]

Please note - I do not work on a Friday. My working hours are between 8am and 4pm Monday to Thursday.

**The Scottish Government** 

To see how we use your personal data, please view our Marine licensing and consenting: privacy notice - gov.scot (www.gov.scot)















Marine Directorate |
Marine Directorate
Blog |
@ScotGovMarine |
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LinkedIn

From: NATS Safeguarding < NATSSafeguarding@nats.co.uk >

Sent: 14 July 2025 15:40

To: MD Marine Renewables < MD.MarineRenewables@gov.scot>

Cc: [Redacted] [Redacted] Econsents Admin

<Econsents Admin@gov.scot>

Subject: RE: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on

Request for Scoping Opinion – Response Required by 07 August 2025 [SG37969]

Our Ref: SG37969

Dear Sir/ Madam

We refer to the application above. The proposed development has been examined by our technical safeguarding teams. The relevant teams are being consulted and based on our preliminary technical findings, the proposed development does conflict with our safeguarding criteria. Accordingly, NATS (En Route) plc <u>objects to the proposal</u>. We will notify you within 4-6 weeks of the results of our operational assessment. Only if this assessment shows the impact to be acceptable will we be able to withdraw our objection.

We would like to take this opportunity to draw your attention to the legal obligation of local authorities to consult NATS before granting planning permission for a wind farm. The obligation to consult arises in respect of certain applications that would affect a technical site operated by or on behalf of NATS (such sites being identified by safeguarding plans that are issued to local planning authorities).

In the event that any recommendations made by NATS are not accepted, local authorities are further obliged to notify both NATS and the Civil Aviation Authority ("CAA") of that fact (which may lead to the decision made being subject to review whether by the CAA referring the matter for further scrutiny or by appropriate action being taken in the courts).

As this further notification is intended to allow the CAA sufficient time to consider whether further scrutiny is required, we understand that the notification should be provided prior to any granting of permission. You should be aware that a failure to consult NATS, or to take into account NATS's comments when deciding whether to approve a planning application, could cause serious safety risks for air traffic.

If you have any queries regarding this matter you can contact us using the details as below.

Yours faithfully



NATS Safeguarding

E: natssafeguarding@nats.co.uk

4000 Parkway, Whiteley, Fareham, Hants PO15 7FL www.nats.co.uk

**NATS Internal** 



# Technical and Operational Assessment (TOPA)

For Stoura Offshore Wind Farm Development

NATS ref: SG37969

Scottish Government ref: SCOP-0071

Issue 1

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# Publication History

Issue	Month/Year	Change Requests and summary
1	September 2025	Scoping Request

# **Document Use**

External use: Yes

# **Referenced Documents**

# 1. Background

# 1.1. En-route Consultation

NATS en-route plc is responsible for the safe and expeditious movement in the en-route phase of flight for aircraft operating in controlled airspace in the UK. To undertake this responsibility it has a comprehensive infrastructure of RADAR's, communication systems and navigational aids throughout the UK, all of which could be compromised by the establishment of a wind farm.

In this respect NATS is responsible for safeguarding this infrastructure to ensure its integrity to provide the required services to Air Traffic Control (ATC).

In order to discharge this responsibility <u>NATS is a statutory consultee for all wind farm applications</u>, and as such assesses the potential impact of every proposed development in the UK.

The technical assessment sections of this document define the assessments carried out against the development proposed in section 3.

# 2. Scope

This report provides NATS En-Route plc's view on the proposed application in respect of the impact upon its own operations and in respect of the application details contained within this report.

Where an impact is also anticipated on users of a shared asset (e.g. a NATS RADAR used by airports or other customers), additional relevant information may be included for information only. While an endeavour is made to give an insight in respect of any impact on other aviation stakeholders, it should be noted that this is outside of NATS' statutory obligations and that any engagement in respect of planning objections or mitigation should be had with the relevant stakeholder, although NATS as the asset owner may assist where possible.

# 3. Application Details

Scottish Government submitted a request for a NATS technical and operational assessment (TOPA) for the development at Stoura Offshore Wind Farm. It will comprise a number of turbines contained with the boundary as defined Table 1 and shown in the diagrams in Appendix B.

Boundary	Lat	Long	East	North	Hub (m)	Tip (m)
Α	60.4207	-0.1409	502469	1172210	220	385
В	60.5299	-0.0621	506451	1184487	220	385
С	60.5291	0.0506	512637	1184589	220	385
D	60.4207	0.0461	512766	1172515	220	385

Table 1 - Turbine Details

# 4. Assessments Required

The proposed development falls within the assessment area of the following systems:

Surv	Lat	Long	nm	km	Az (deg)	Туре
Sumburgh	59.86770	-1.27320	47.5	88.1	45.1	PSR
Nav	Lat	Long	nm	km	Az (deg)	Туре
None						
AGA	Lat	Long	nm	km	Az (deg)	Туре
None						

Table 2 - Impacted Infrastructure

## 4.1. En-route RADAR Technical Assessment

# 4.1.1. Predicted Impact on Sumburgh RADAR

Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated.

# 4.1.2. En-route operational assessment of RADAR impact

Where an assessment reveals a technical impact on a specific NATS' RADAR, the users of that RADAR are consulted to ascertain whether the anticipated impact is acceptable to their operations or not.

Unit or role	Comment
Aberdeen ATC	Unacceptable

Note: The technical impact, as detailed above, has also been passed to non-NATS users of the affected RADAR, this may have included other planning consultees such as the MOD or other airports. Should these users consider the impact to be unacceptable it is expected that they will contact the planning authority directly to raise their concerns.

# 4.2. En-route Navigational Aid Assessment

# 4.2.1. Predicted Impact on Navigation Aids

No impact is anticipated on NATS' navigation aids.

# 4.3. En-route Radio Communication Assessment

### 4.3.1. Predicted Impact on the Radio Communications Infrastructure

No impact is anticipated on NATS' radio communications infrastructure.

# 5. Conclusions

# 5.1. En-route Consultation

The proposed development has been examined by technical and operational safeguarding teams. A technical impact is anticipated, this has been deemed to be <u>unacceptable</u>.

# Appendix A – Background RADAR Theory

# Primary RADAR False Plots

When RADAR transmits a pulse of energy with a power of  $P_t$  the power density, P, at a range of r is given by the equation:

$$P = \frac{G_{t}P_{t}}{4\pi r^{2}}$$

Where  $G_t$  is the gain of the RADAR's antenna in the direction in question.

If an object at this point in space has a RADAR cross section of  $\sigma$ , this can be treated as if the object re-radiates the pulse with a gain of  $\sigma$  and therefore the power density of the reflected signal at the RADAR is given by the equation:

$$P_{a} = \frac{\sigma P}{4\pi r^{2}} = \frac{\sigma G_{t} P_{t}}{(4\pi)^{2} r^{4}}$$

The RADAR's ability to collect this power and feed it to its receiver is a function of its antenna's effective area,  $A_e$ , and is given by the equation:

$$P_{r} = P_{a}A_{e} = \frac{P_{a}G_{r}\lambda^{2}}{4\pi} = \frac{\sigma G_{t}G_{r}\lambda^{2}P_{t}}{(4\pi)^{3}r^{4}}$$

Where  $G_t$  is the RADAR antenna's receive gain in the direction of the object and  $\lambda$  is the RADAR's wavelength.

In a real world environment this equation must be augmented to include losses due to a variety of factors both internal to the RADAR system as well as external losses due to terrain and atmospheric absorption.

For simplicity these losses are generally combined in a single variable L.

$$P_{r} = \frac{\sigma G_{r} G_{r} \lambda^{2} P_{t}}{(4\pi)^{3} r^{4} L}$$

# Secondary RADAR Reflections

When modelling the impact on SSR the probability that an indirect signal reflected from a wind turbine has the signal strength to be confused for a real interrogation or reply can determined from a similar equation:

$$P_r = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r_t^2 r_r^2 L}$$

Where  $\mathbf{r_t}$  and  $\mathbf{r_r}$  are the range from RADAR-to-turbine and turbine-to-aircraft respectively. This equation can be rearranged to give the radius from the turbine within which an aircraft must be for reflections to become a problem.

$$r_{r} = \sqrt{\frac{\lambda^{2}}{(4\pi)^{3}}} \sqrt{\frac{\sigma G_{r} G_{r} P_{r}}{r_{r}^{2} P_{r} L}}$$

# Shadowing

When turbines lie directly between a RADAR and an aircraft not only do they have the potential to absorb or deflect, enough power such that the signal is of insufficient level to be detected on arrival.

It is also possible that azimuth determination, whether this done via sliding window or monopulse, can be distorted giving rise to inaccurate position reporting.

# Terrain and Propagation Modelling

All terrain and propagation modelling is carried out by a software tool called ICS Telecom (version 11.1.7). All calculations of propagation losses are carried out with ICS Telecom configured to use the ITU-R 526 propagation model.

## Appendix B – Diagrams

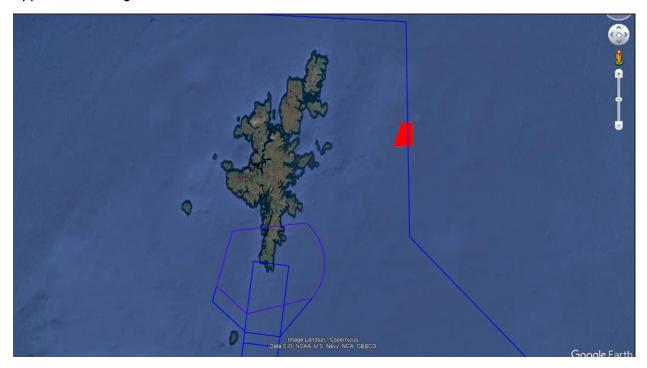


Figure 1: Proposed development location shown on an airways chart

# Natural England

Date: 15 July 2025 Our ref: 503462 Your ref: SCOP-0065



Scottish Government, 5 Atlantic Quay, 150 Broomielaw, Glasgow, G2 8LU

Lancaster House Hampshire Court Newcastle-upon-Tyne NE4 7YH

#### BY EMAIL ONLY

Dear Jennifer

HABITATS REGULATIONS APPRAISAL SCREENING REPORT under The Conservation (Natural Habitats, &c.) Regulations 1994, The Conservation of Offshore Marine Habitats and Species Regulations 2017 AND the CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017

SCOP-0071 - Request for Habitats Regulations Appraisal Screening Response - Stoura Offshore Wind Farm

Location: 52km East of Shetland

Thank you for seeking our advice on the EIA Scoping Opinion and HRA Screening Report provided in your consultation which we received on 08 July 2025.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

The advice contained within this letter is provided by Natural England, which is the statutory nature conservation body within English territorial waters (0-12 nautical miles). As the application is located in Scottish waters, advice from NatureScot, the statutory nature conservation body in Scotland should be sought.

Having considered the location and scale of Stoura OWF, we conclude that the project is unlikely to significantly impact any species from English designated sites. We do not expect a requirement to provide further comments or advice on this project unless the project changes substantially.

For any queries relating to the specific advice in this letter <u>only</u> please contact me using the details below. For any new consultations, or to provide further information on this consultation please send your correspondence to <u>consultations@naturalengland.org.uk</u>.

Yours sincerely

Pete Welby Marine Higher Officer

E-mail: [Redacted]

## NatureScot & JNCC



Jennifer Goodheir
Marine Licensing Casework Officer
Marine Directorate – Licensing Operations Team
Scottish Government – 5 Atlantic Quay
150 Broomielaw, Glasgow
G2 8LU

06 August 2025

Our ref: CNS / REN / OSWF / Stoura

By email only:

md.marinerenewables@gov.scot

Dear Jennifer,

#### STOURA OFFSHORE WIND FARM

NatureScot advice on the Environmental Impact Assessment (EIA) Scoping Report and Habitats Regulation Appraisal (HRA) Screening Report

Thank you for consulting NatureScot on the EIA Scoping Report and HRA Screening Report for the Stoura Offshore Wind Farm Array and Export Cable Search Area (ECSA)

Our advice on the natural heritage interests to be addressed within the Environmental Impact Assessment Report (EIA Report) and the Report to Inform Appropriate Assessment (RIAA) is outlined below. We consulted JNCC on aspects relating to Pobie Bank Reef SAC and have incorporated their advice into our response.

#### **Policy context**

We are currently facing two crises, that of climate change and biodiversity loss and as the Scottish Government's adviser on nature, our work seeks to inspire, enthuse and influence others to manage our natural resources sustainably.

Our corporate plan – A nature-rich future for all 2022-2026 – indicates the steps required to tackle the climate emergency and the nature crisis in Scotland. In addition, world events in 2022 continue to shine a spotlight on energy security requirements across Europe and beyond. However, we are in a climate-nature crisis because of our historic and continuing use of fossil fuels and our management actions on land and in water.

We recognise that this proposed development is a lease awarded through the ScotWind Leasing Round in an area identified through the Sectoral Marine Plan process for Offshore Wind Energy.

We seek to provide advice that is enabling and secures the right development in the right place with most benefit for climate change reduction and that which avoids damage, and where possible, achieves enhancement and restoration of biodiversity.

#### **Proposed development**

The Stoura Offshore Wind Farm is sited approximately 52km offshore to the east of mainland, Shetland, covering a seabed area of approximately 100km<sup>2</sup>. In the absence of a confirmed grid connection offer, an Export Cable Search Area (ECSA) has been defined to allow for refinement at a later stage. As such, multiple potential landfall locations are included within the Scoping Report, along the northwest, north and east coast of mainland, Shetland.

The proposed development uses a project design envelope approach<sup>1</sup> and comprises of:

- Up to 40 wind turbine generators (WTGs).
- WTGs will use floating foundations, namely spar, semi-submersible, tension-leg platform, or barge.
- A broad range of possible anchoring and mooring systems.
- A maximum blade tip height of 385m and a maximum rotor blade diameter of 330m.
- One Offshore Substation Platform (OSP) with fixed or floating foundations.
- Up to two export cables, each 140km in length.
- Cable protection and scour protection may be required.
- Up to two mid-point compensation platforms (one per cable).

## **Content of the EIA Scoping Report and HRA Screening Report**

We are generally content with the format of the EIA Scoping Report, which is well laid out and relatively easy to navigate.

However, the PDE is broad, with limited detail, and a wide range of possible options across: turbine design, foundations, anchoring and layout; OSP and protection methods. Therefore, our advice is proportionate to the level of detail provided within the Scoping Report, and the uncertainty around the final project design. If this lack of detail is continued into the application, it means that there is a greater risk of a worst-case scenario being assessed and a greater level of precaution in the advice provided.

#### **Assessment approach**

The EIA Report should consider the impact of all aspects and all phases of the proposed development on the receiving environment, including effects from pre-construction activities as well as the construction, operation and maintenance and decommissioning phases. We recommend that the following aspects are considered further and included in the EIA Report.

<sup>&</sup>lt;sup>1</sup> https://www.gov.scot/publications/guidance-applicants-using-design-envelope-applications-under-section-36-electricity-act-1989/

## Application timescales

We understand that the S36 application for Stoura Offshore Wind Farm is not likely to be submitted until 2028/2029. Given this prolonged period between the scoping stage and application, it is likely that the most relevant data sources and appropriate methodologies will evolve and data collected might require updating. As such, we would welcome further discussions on these aspects prior to preparing the application.

#### Significance matrix

The significance matrix presented in Table 4.1 is welcomed as it presents a balanced approach to assigning of significance. Significance scoring has been a recurring issue in several recent applications, and we have felt that the significance of effect has generally been reduced, rather than presented accurately, and impacts have consequently been 'under-played'. As a result, it is encouraging to see the proposed matrix more accurately reflects our expectations for determining effect significance. For magnitude and sensitivity criteria for individual receptors, we would welcome further engagement prior to preparing the application to ensure suitability and consistency with other applications.

#### **Proportionality**

We note that in Paragraph 4.5.2.8, to "ensure proportionality" it states that "impacts with a 'negligible' magnitude will not be assessed further, even if they might aggregate with other impacts; this is because, cumulatively, they still yield a non-significant result". However, we disagree with this approach. We advise that project alone impacts could be deemed negligible, but when combined with others, the overall magnitude could be greater and therefore result in a cumulative effect. As such, further consideration should be given to negligible project alone impacts in the cumulative effects assessment.

#### Ecosystem assessment

Increasingly, there is a need to understand potential impacts holistically at a wider ecosystem scale in addition to the standard set of discrete individual receptor assessments. This assessment should focus on potential impacts across predator prey interactions. This will enable a better understanding of the consequences (positive or negative) of any potential changes in prey distribution and abundance from the development of the wind farm on bird and mammal (as well as other top predator) interests and what influence this may have on population level impacts.

#### Climate change and carbon costs

The impact of climate change effects should be considered, both in futureproofing the proposal design as well as how certain climate stressors may work in combination with potential effects from the proposed wind farm. The EIA Report should also consider the carbon cost of the wind farm (including supply chain) and to what extent this is offset through the production of green energy. We note the intention to provide a climate change assessment as part of the EIA Report, with further details provided within Section 8.4 of the Scoping Report, which is welcomed.

#### Blue carbon

In addition to the climate change assessments outlined in Section 8.4 of the EIA Scoping Report, we recommend that consideration is given to impacts on blue carbon and whether or not an assessment can be undertaken. This should expand on the information and assessment conducted

for benthic ecology to focus on the potential impacts of the proposed development on marine sediments and coastal habitats. We recognise that some aspects of this are addressed in Section 8.4.

#### Wet storage

Paragraph 10.2.5.4 indicates that there may be a need for wet storage. However, specific requirements and potential wet storage locations are not provided.

Wet storage could represent a significant impact, therefore consideration of the potential impacts on all receptors needs to be addressed, including cumulative impacts. However, it is unclear whether this should form part of the EIA Report for this application or should be considered as an aspect related to the relevant port and harbour expansion considerations. We are aware that Marine Directorate are currently considering consenting routes and processes around the activities associated with both the construction and maintenance phases and requirements to assemble, maintain and store components away from the array area. We would welcome further discussion on this when further details are available, to help inform our advice going forward.

#### Mitigation

We advise every applicant to consider the mitigation hierarchy as a first step i.e. avoid, reduce and mitigate impacts.

We welcome the identification of "designed in measures and mitigation" as outlined in each of the relevant receptor chapters of the EIA Scoping Report and summarised in Appendix B (Designed-in Mitigation Commitments Register).

However, we note that much of the embedded mitigation measures includes the development and adherence to post-consent plans and programmes. Plans and programmes themselves do not strictly constitute mitigation – it is the measures contained within the plan that will mitigate impacts, for which no detail has yet been provided.

Mitigation measures can often be most successful when they are considered from the outset of the proposal rather than as a late-stage solution. Therefore, in some cases, mitigation can be incorporated as designed in measures that are truly embedded to avoid / reduce impacts.

We advise that the EIA Report must clearly articulate those mitigation measures that are informed by the EIA (or HRA) and are necessary to avoid or reduce predicted significant adverse environmental effects of the proposal. We recommend that the full range of mitigation and monitoring measures as well as published guidance are considered and discussed in the EIA Report.

#### Cumulative effects assessment

We are concerned with the likelihood of multiple offshore export cables routing through designated sites and making landfall around Mainland Shetland and the potential for cumulative impacts arising from construction and associated geophysical, geotechnical and environmental survey programmes. Therefore, we recommend that this is considered further. In particular, we would welcome any collaboration with the proposed Arven Offshore Wind Farm to the south of the Stoura Offshore Wind Farm. We have previously raised the need for strategic consideration by both Scottish Government (Offshore Wind and Marine Directorates) and the National Electricity System Operator (NESO) as well as the relevant Transmission Operator (TO) for the consideration of cable management in Scottish waters to avoid marine and coastal spatial squeeze as well as

onshore impacts. We would welcome our involvement in route planning and selection both on and offshore.

#### **Environmental Impact Assessment Report (EIA Report)**

The EIA Report provides the assessment to support the application and should be suitability structured, with appropriate formatting, sufficient information with limited repetition to ensure it can be reviewed efficiently and effectively. Consideration should therefore be given to the following aspects:

- It should clearly follow the direction provided in the Scoping Opinion, or where specific
  agreement was later reached during the pre-application process. Any divergence from this
  needs to be laid out separately and must be fully justified, as well as being raised in preapplication discussions.
- Consideration should be given to the volume and flow of information within and across each receptor chapter and associated technical appendices. The flow of information relating to impact pathway, assessment and conclusions should be concise, but not omit key information on steps taken. Repeated duplication of text should be avoided through appropriate structuring.
- In electronic versions of the EIA Report, navigational aids including use of hyperlinks etc. are required, particularly where there are supporting technical appendices to any chapters.
- Each stage of the assessment process should be sufficiently transparent to allow the assessments to be repeated. Where specific tools have been used, details of which version and when the assessment was carried out is required.

## **Habitats Regulations Appraisal (HRA)**

We welcome submission of the HRA Screening Report alongside the EIA Scoping Report as this enables us to consider and provide advice under each assessment process at the same time. We provide advice to help inform HRA requirements for marine ornithology, marine mammals, benthic ecology and diadromous fish in each of the relevant appendices.

### Positive Effects for Biodiversity / Biodiversity Net Gain

We recommend early consideration of potential inclusion of positive effects for biodiversity as well as nature inclusive design. Whilst it is not currently a policy requirement, as part of the need to address both the climate and biodiversity crises, we encourage Developers to consider this as part of their submission.

#### Natural Heritage interests to be considered

We provide advice as detailed below within receptor-specific technical appendices for key natural heritage interests to be considered in the EIA Report:

- Advice on Physical Processes is provided in <u>Appendix A</u>.
- Advice on Underwater Noise is provided in Appendix B.
- Advice on Blue Carbon is provided in <u>Appendix C</u>.
- Advice on Benthic Ecology is provided in **Appendix D**.
- Advice on Fish and Shellfish Ecology is provided in <u>Appendix E</u>.
- Advice on Marine Mammals is provided in **Appendix F**.
- Advice on Ornithology is provided in Appendix G.
- JNCC advice on Pobie Bank Reef SAC is provided in <u>Appendix H</u>.

For the following receptors, we advise:

- Seascape, Landscape Character and Visual Impact assessment (SLVIA) having reviewed
  the supporting information for the proposed development, we do not consider that the
  offshore array would raise issues of National Interest in relation to its landscape, visual or
  cumulative effects. This is not to say that the development would not result in significant
  landscape or visual effects, rather that NatureScot does not judge these effects to meet
  our threshold in respect of our national remit for landscapes.
- Bats we advise that Nathusius' pipistrelle bats should be considered under EIA for the Offshore Project. We note that there is currently very little knowledge of bat migration in Scotland, however, recent evidence has shown Nathusius' pipistrelle bats flying through on migration. Further to this, there have also been additional sightings at O&G platforms in Scottish waters. It is likely that these sightings are an underestimate as they are incidental, rather than from active monitoring. We are aware of research proposals reviewing Nathusius' pipistrelle migration, which do migrate across the North Sea from the Baltic region. We would welcome further discussion with Stoura and other developers to discuss potential funding and collaboration with ScotMER on this topic.

## **Shetland's Environmental Monitoring of Marine Renewables Advisory Group**

We support the commitment from Stoura to develop and participate in the Shetland's Environmental Monitoring of Marine Renewables Advisory Group (SEMMRAG).

#### Further information and advice

We hope this advice is of assistance to help inform the Scoping Opinion, noting that there may be aspects where some further engagement is required to assist in preparing the EIA Report.

Please contact me in the first instance for any further advice, using the contact details below, copying to our marine energy mailbox – <u>marineenergy@nature.scot</u>.

Yours sincerely,

#### **Caitlin Cunningham**

Marine Sustainability Adviser – Sustainable Coasts and Seas

[Redacted]

#### APPENDIX A - PHYSICAL PROCESSES

Physical processes are considered in Section 8.1 of the EIA Scoping Report and Sections 4.2 and 5.2 of the HRA Screening Report. We note that there are specific questions under Section 8.1.12, which we answer within our advice below.

#### Study area

The study area considers: the distance which suspended sediment plumes may be advected, defined by a spring tidal excursion buffer; the distance from landfall that littoral processes could potentially be impacted, defined through consideration of coastal sub-cell information; and the distance that wave blockage impacts could be detected, based on expert judgement. We are content with what is proposed.

#### **Baseline characterisation**

Existing data sources are provided in Table 8.1 and it is proposed that these will be used alongside planned site-specific survey data, to inform the EIA Report. We are content that the combination of existing data sources and site-specific surveys should provide adequate information to characterise the baseline environment.

#### Designated sites

Table 8.2 lists the designated sites within proximity to the proposal, including Fetlar to Haroldswick MPA. Seabed habitats that are biological features of the MPA have been correctly identified; however, the marine geomorphology of the Scottish shelf seabed feature is lacking. This geodiversity feature consists of the local part of the Shetland Carbonate Production Area.

#### Impact pathways

Potential impacts proposed to be scoped in are summarised in Table 8.3. We are broadly content with the impacts to be scoped in, noting our comments below.

For 'potential for elevated SSC...', the proposed use of spreadsheet-based models should be accompanied, if possible, by considering the results of modelling of suspended sediment plumes undertaken for other OWF proposals, where and if sufficiently analogous.

Regarding 'potential impacts to landfall morphology', there should be explicit consideration of the potential for trenched cable(s) to become re-exposed, especially given the anticipated increases in rates and extent of erosional retreat at the coast due to accelerating sea-level rise. A re-exposed cable could lead to demand for hard engineering, which could in turn disrupt coastal processes. This could be assessed within 'potential impacts to landfall morphology', but ideally it should be assessed as a stand-alone impact.

For 'potential changes to the wave regime' and 'potential changes to the tidal regime', it is welcome that there is explicit reference to consideration of previous modelling studies for OWF proposals. Provided that those studies cited are sufficiently analogous, then a decision to not undertake new modelling would likely be adequate.

We note that for 'scour around offshore infrastructure', the proposal is to assess scour development in the absence of scour protection measures. There should also be explicit assessment of the potential for secondary scour, i.e. scour around installed scour protection.

In Table 8.4, only 'pathway' potential impacts are identified for 'potential changes to the wave regime, ...tidal regime, ...sediment transport', and 'scour'. There are also potential 'receptor' impacts that should be assessed in the Physical Processes chapter, i.e. the marine geomorphology of the Scottish shelf seabed feature of the Fetlar to Haroldswick MPA

#### Approach to assessment

We are broadly content with the proposed assessment methodology, noting our comments above, which may be relevant.

Definitions of Magnitude and Sensitivity for the physical processes impact assessment should be provided at this scoping stage rather than waiting till in the EIA Report. This is important to avoid potential disagreement over assessment undertaken. As such, we would welcome further engagement prior to the application submission around the definitions.

#### **Cumulative assessment**

Section 8.1.8 discusses potential cumulative effects. The proposed approach appears appropriate. Additionally, we advise that the Applicant seek agreement with MD-LOT regarding the list of projects and/or plans to be included in the CEA.

## Mitigation and monitoring

We welcome the identification of embedded mitigation described in Section 8.1.6.

However, as noted in the cover letter, much of the embedded mitigation includes adherence to post-consent plans and/or programmes. Plans do not strictly constitute mitigation as it is the measures contained within the plans/programmes that will mitigate impacts for which no detail has yet been provided.

#### **Transboundary impacts**

Potential transboundary impacts are discussed in Section 8.1.10. We agree that transboundary impacts can be scoped out from further consideration.

## **Habitats Regulations Appraisal (HRA) Screening Report**

We are content with the conclusion in the HRA Screening Report that two European sites with Annex 1 habitat features / supporting habitats have been screened into the Report to Inform Appropriate Assessment (RIAA). Additionally, we are content with the impact pathways, including 'changes in physical processes'.

#### APPENDIX B – UNDERWATER NOISE

Underwater noise is discussed as a standalone chapter in Section 8.2, with relevance to both Fish & Shellfish Ecology and Marine Mammals. We note that there are specific questions under Section 8.2.11, which we answer within our advice below.

#### **Data sources**

At present, we are willing to adopt the NMFS (2024) weightings and thresholds; however, their formal use within Scottish waters has not yet been confirmed by Marine Directorate. Until this confirmation is provided, we recommend continuing to use Southall et al. (2019) as the primary reference. We hope this confirmation will occur soon, however if not, we advise that an alternative option would be to present both sets of thresholds in parallel for transparency and to support future alignment.

#### Impact pathways

We are broadly content with the noise sources and activities covered by the assessment and impacts identified. However, we would usually advise that potential particle motion impacts on fish are considered and discussed, particularly if surveys indicate the proposed array is in or in close proximity to spawning or nursery grounds. While we recognise that there is a significant information gap that limits the ability to fully assess these impacts, particle motion is an emerging area of concern in relation to underwater noise, and its potential relevance should be acknowledged within the assessment.

#### Approach to impact assessment

We are content with the proposed methodology to determine source levels for piling, noting that the best available models for each purpose have been outlined. We are also content with the noise modelling methodology, noting that the exact scope, specification and methodology of the noise propagation modelling will be agreed separately.

Regarding swim speeds, no specific information has been provided in the EIA Scoping Report. It is stated that these will be agreed with NatureScot, but no reference figures have been proposed for review. We would therefore request that indicative swim speeds, along with supporting rationale or literature sources, are provided to enable informed discussion and agreement.

#### Mitigation and monitoring

We are content with the proposed mitigation measures and welcome the discussion around Noise Abatement Systems in particular. Additionally, we welcome the commitment in the Marine Mammals Section 9.2.6, to use low order deflagration for unexploded ordnance (UXO) clearance where possible.

#### APPENDIX C - BLUE CARBON

Blue carbon is briefly addressed in Section 8.4 (Climate Effects) and we note that a Blue Carbon Assessment will be undertaken to inform the EIA Report. To aid you with this, we provide the following general advice.

#### Study area

The study area defined for blue carbon should mirror the advice for benthic ecology and/or physical processes.

#### Baseline characterisation

The blue carbon assessment should expand on the information and assessment conducted for benthic ecology, as well as making links to the physical processes chapter where appropriate.

Typically, seabed sediment samples will be collected for particle size analyses and organic carbon measurements through site-specific surveys. Site-specific values could be compared to relevant data sources (e.g. Smeaton et al., 2020). Where this is the case, this information should be clearly signposted or presented within the blue carbon assessment. Multibeam Echosounder (MBES) surveys are often also carried out to assess the seabed surface and sediment type during site-specific surveys. These measurements can be used to a inform or support a blue carbon assessment, including, to provide a spatially explicit estimate of surficial carbon stocks, i.e. top 10cm of sediment (Hunt et al., 2020).

We recommend the following relevant data sources:

- Burrows, M. T., Smeaton, C., Tillin, H., Grundy, S., Sugden, H., Moore, P., Fitzsimmons, C., Austin, W., O'Dell, A. 2024. <u>The United Kingdom's Blue Carbon Inventory: Assessment of</u> <u>Marine Carbon Storage and Sequestration Potential in Scotland (Including Within Marine</u> <u>Protected Areas)</u>. A Report to The Wildlife Trusts, WWF and the RSPB. Scottish Association for Marine Science, Oban.
- <u>Cunningham, C. and Hunt, C. 2023. Scottish Blue Carbon a literature review of the current evidence for Scotland's blue carbon habitats</u>. NatureScot Research Report 1326.
- Daewel, U., Akhtar, N., Christiansen, N., & Schrum, C. (2022). Offshore wind farms are projected to impact primary production and bottom water deoxygenation in the North Sea. Communications Earth and Environment, 3(1), 1–8. https://doi.org/10.1038/s43247-022-00625-0
- Diesing, M., Thorsnes, T., & Rún Bjarnadóttir, L. (2021). Organic carbon densities and accumulation rates in surface sediments of the North Sea and Skagerrak. Biogeosciences, 18(6), 2139–2160. <a href="https://doi.org/10.5194/bg-18-2139-2021">https://doi.org/10.5194/bg-18-2139-2021</a>
- Hunt C, Demšar U, Dove D, Smeaton C, Cooper R and Austin WEN (2020) Quantifying Marine Sedimentary Carbon: A New Spatial Analysis Approach Using Seafloor Acoustics, Imagery, and Ground-Truthing Data in Scotland. *Front. Mar. Sci.* 7:588. <a href="https://doi.org/10.3389/fmars.2020.00588">https://doi.org/10.3389/fmars.2020.00588</a>
- Smeaton, C., Austin, W., & Turrell, B. (2020). Re-evaluating Scotland's sedimentary carbon stocks. (2 ed.) (Scottish Marine and Freshwater Science; Vol. 11, No. 2). Marine Scotland. <a href="https://doi.org/10.7489/12267-1">https://doi.org/10.7489/12267-1</a>

- Smeaton, C., Hunt, C.A., Turrell, W.R. and Austin, W.E.N. 2021a. Marine Sedimentary Carbon Stocks of the United Kingdom's Exclusive Economic Zone. Frontiers in Earth Science, 9 <a href="https://doi.org/10.3389/feart.2021.593324">https://doi.org/10.3389/feart.2021.593324</a>
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- UKBCEP Guidance for the standardisation of sedimentary organic carbon sampling and analysis is due to be published in 2025. Ask Corallie Hunt for an update.

#### **Potential impacts**

Impact pathways for blue carbon should be similar to those for benthic ecology, with an emphasis on direct disturbance to sediment in particular. As the fate of disturbed sedimentary organic carbon is currently unknown, as a precautionary approach, it should be assumed that 100% of the disturbed volume will result in  $CO_2$  emissions to the atmosphere. For intertidal habitats that may be disturbed by activities (for instance cabling connections to land), indirect impacts such as smothering may be an issue.

Assessments should also consider the impact of the cable corridor on sedimentary carbon and its potential for spatial overlap with kelp beds, subtidal and intertidal seagrass beds, and saltmarsh where it comes ashore.

Typically, we advise that changes in physical processes resulting from the presence of the subsea infrastructure associated with the proposal are scoped in, e.g. scour effects, changes in wave/tidal current regimes and resulting effects on sediment transport. Blue carbon assessments should also include this as an impact pathway where relevant, as sediment and associated carbon accumulation may result from the proposal (Daewel, et al., 2022; Watson et al., 2024). This could be further impacted at decommissioning stage, although the impact is likely to be negligible given relatively low sediment accumulation rates in the North Sea, noting that this does vary spatially (Diesing, Thorsnes, & Bjarnadóttir, 2021).

### Approach to assessment

We would accept a quantitative or qualitative approach given the current data gaps in sedimentary carbon densities and reactivity and the uncertainty in the fate of disturbed carbon, though our preference is for the former. Previous assessments have mapped and quantified the carbon stocks in the underlying sediment using existing data sources, over the proposed seabed area likely to be disturbed/lost through the installation of infrastructure.

The assessment presented should be transparent, utilising tables where appropriate to clearly display the quantitative breakdown for calculating total carbon stocks over areas/extents of different sediment types. Carbon densities vary with sediment type so where data are available to suggest variable sediment type, the associated carbon density will change. Most sedimentary

carbon stocks are calculated for the surficial 10 cm because this is where the majority of the evidence has been collected. However, assessments should acknowledge that there will be additional disturbance to carbon that is buried deeper from foundations, anchors, etc.

While there is a suggestion within the literature that there may be an increase in accumulation of sedimentary organic carbon as a result of the infrastructure associated with offshore wind farms modifying current speeds, it is unlikely that this will compensate for sediment disturbance and loss over the lifetime of an offshore wind farm proposal.

The vulnerability and recoverability of blue carbon should be considered when assessing the sensitivity, magnitude and overall significance of any impact. In general, we have assessed that 'The receptor is deemed to be of high vulnerability, low recoverability, and high value. The sensitivity of the receptor is therefore, considered to be high.' This is because sediment accumulation on the seabed can be very low and recovery therefore is slow.

Previous assessments have included comparisons to overall Scottish carbon emissions or extent of habitat within Scotland to assess the significance of impact. This often results in a very small proportion which leads to an assessment of insignificance.

To convert carbon stocks to  $CO_2$  emissions, a factor of 3.67 should be used. It is not appropriate for inorganic carbon stocks to be converted to  $CO_2$  emissions.

### Cumulative impacts

Assessments should consider the cumulative impacts of disturbance from other developments, including on longer-term carbon stored buried deeper.

#### Mitigation and monitoring

Typically, specific mitigation and monitoring for blue carbon is unlikely to be required. However, any mitigation required for benthic or coastal habitats is likely to be beneficial for blue carbon.

#### Transboundary impacts

Transboundary impacts are unlikely to be identified for blue carbon, but this should mirror advice provided for benthic ecology or physical processes.

#### APPENDIX D – BENTHIC ECOLOGY

Benthic ecology interests are considered in Section 9.1 of the EIA Scoping Report and Sections 4.2 and 5.2 of the HRA Screening Report. We note that there are specific questions under Section 9.1.12, which we answer within our advice below.

## Study area

The local study area is defined as one spring tidal ellipse around the Offshore Scoping Boundary, within which increased suspended sediment concentrations (SSC) and deposition may be likely to occur. The regional study area is defined as a wider area of the Northern North Sea continental shelf waters to provide wider context to the local study area. We are content with what is proposed.

#### **Baseline characterisation**

We are content with the proposed data sources and guidance documents, as per Section 9.1.3.

Site-specific surveys

We note that site-specific surveys have not yet been conducted. Thus, our advice is based on the level of information presented at this stage. Should any other habitats or features of conservation interest be found in the subsequent surveys, then these should also be carried through to the EIA Report.

## **Potential impacts**

We are content with the impacts scoped in and out, as per Table 9.3 and 9.4, respectively. We advise that no additional impact pathways can be scoped out at this stage, as there are potential risks and/or high uncertainty with doing so.

## Approach to assessment

We are broadly content with the proposed methodology, including defining the sensitivity of benthic receptors from the MarESA and FeAST tools. In addition, the conservation value (e.g. protected status, PMF) should also be considered as part of the of sensitivity criteria.

#### **Cumulative impacts**

With the proposed number of offshore wind developments in Scottish waters, we are noting the tendency for developers to indicate no LSE from EMF impacts from a cumulative basis. However, we are concerned that the spatial and temporal scale is not being considered cumulatively across the network of cables, including those outwith the proposed development. Thus, we advise that EMF impacts are considered in the cumulative assessment.

#### Mitigation and monitoring

We welcome the identification of designed in measures and mitigation as per Section 9.1.6. However, as noted in the cover letter, much of the embedded mitigation includes adherence to post-consent plans and/or programmes. Plans do not strictly constitute mitigation as it is the measures contained within the plans/programmes that will mitigate impacts for which no detail has yet been provided.

## **Transboundary impacts**

Potential transboundary impacts are discussed in Section 9.1.10 and we are content that transboundary impacts have been scoped out from further consideration.

## Habitats Regulations Appraisal (HRA) Screening Report

We agree with the 5km screening range (based on physical processes modelling) used for the initial screening of European sites at this stage. If further modelling and/or results of site-specific surveys indicate a need for a larger range, then this should be revisited.

We are content with the conclusion in the HRA Screening Report that two European sites with Annex 1 habitat features / supporting habitats have been screened into the Report to Inform Appropriate Assessment (RIAA). Moreover, we are content with the impact pathways screened in.

#### APPENDIX E - FISH AND SHELLFISH ECOLOGY

Fish and shellfish interests are considered in Section 9.2 of the EIA Scoping Report and Section 4.3 of the HRA Screening Report. We note that there are specific questions under Section 9.2.11, which we answer within our advice below.

## Study area

The study area encompasses the Offshore Scoping Boundary plus a 100 km buffer, which we are content with.

#### **Baseline characterisation**

We support the approach to use future site-specific data from the planned benthic ecology survey to inform the baseline for fish and shellfish ecology. This should include Particle Size Analysis to identify herring spawning and sandeel habitat suitability. Moreover, we advise consideration of Drop Down Video (DDV) surveys to characterise the fish and shellfish ecology baseline.

Furthermore, we would also recommend that eDNA surveys are considered in addition to traditional survey methods. Although this is still an emerging technique, it can add value to surveys and improve detection of cryptic species, for example, and those which are difficult to detect using traditional methods. It can also be used to detect non-native species.

Key data sources are provided in Table 9.5 and we are content with those listed.

#### Designated sites

Two designated sites with fish and shellfish species have been identified within the study area, including Mousa to Boddam ncMPA (72 km from the array and 29 km from the ECSA via a marine route rather than a straight-line distance) and North-west Orkney ncMPA (148 km from the array and 105 km from the ECSA via a marine route rather than a straight-line distance). Regarding North-west Orkney ncMPA, we have considered the distance and screen this out from further assessment.

For Mousa to Boddam ncMPA, we note that in the MPA Screening Report (Appendix G to the EIA Scoping Report) proposes to screen out the ncMPA as 'potential behavioural effects from underwater noise arising from impulsive piling, is unlikely to reach the Mousa to Boddam MPA'. However, underwater noise modelling is yet to be conducted and thus, we consider it inappropriate to screen out the ncMPA at this stage.

## Impact pathways

The potential impacts proposed to be scoped in and out are summarised in Tables 9.9 and 9.10 respectively, and we are broadly content with what is proposed, noting our comments below.

We agree with scoping in 'underwater noise from construction activities impacting fish and shellfish receptors' but also raise more broadly that underwater noise may be generated during O&M and decommissioning phase activities also.

#### Approach to assessment

The proposed approach to assessment is high level and lacking detail, however, we provide the following comments to steer the overall direction.

Definitions of Magnitude and Sensitivity for the fish and shellfish impact assessment should be provided at this scoping stage rather than being presented for the first time in the EIA Report. This is important to avoid potential disagreement over assessment undertaken. As such, we would welcome further engagement prior to the application submission around the definitions.

#### Sensitivity

For determining sensitivity of species, please note that all Priority Marine Features (PMFs) and some prey fish species are now available on the Feature Activity Sensitivity Tool (FeAST)<sup>2</sup>, noting that Paragraph 9.2.7.3 does indicate that FeAST will be used.

#### Priority Marine Features (PMFs)

We recommend that the assessment should quantify, where possible, the likely impacts to key fish and shellfish PMFs. It should assess whether these could lead to a significant impact on the national status of the PMFs being considered<sup>3</sup>.

#### Changes in prey availability

The EIA Report should clearly set out impacts to key prey species (such as sandeel, herring, mackerel and sprat) and their habitats arising from the proposed development alone and cumulatively with other wind farms. Increasingly we need to understand impacts at the ecosystem scale. Therefore, consideration across key trophic levels will enable better understanding of the consequences (positive or negative) of any potential changes in prey distribution and abundance on marine mammal (and other top predator) interests and how this may influence population level impacts. Consideration of how this loss and or disturbance may affect the recruitment of key prey (fish) species through impacts to important spawning or nursery ground habitats should also be assessed.

The PrePARED (Predators and Prey Around Renewable Energy Developments) project<sup>4</sup> may be helpful in the understanding of predator-prey relationships in and around offshore wind farms.

## **Cumulative assessment**

Section 9.2.8 discusses potential cumulative effects.

We consider that proposal alone impacts could be deemed negligible, but when combined with others, the overall magnitude could be greater and therefore result in a cumulative effect. In particular, one aspect that should be considered cumulatively is Electromagnetic Fields (EMF) both within the array and with the export cable and other cables. There has been a tendency for wind farm proposals to dismiss impacts from EMF from a cumulative perspective. However, we are concerned that the spatial and temporal scale is not being sufficiently considered cumulatively across the network of cables, including those outwith the proposed development.

<sup>&</sup>lt;sup>2</sup> https://feature-activity-sensitivity-tool.scot/

<sup>&</sup>lt;sup>3</sup> https://www.nature.scot/doc/priority-marine-features-guidance

<sup>&</sup>lt;sup>4</sup> https://owecprepared.org/

#### Mitigation and monitoring

We welcome the identification of designed in measures and mitigation as per Section 9.2.6. However, as noted in the cover letter, much of the embedded mitigation includes adherence to post-consent plans and/or programmes. Plans do not strictly constitute mitigation as it is the measures contained within the plans/programmes that will mitigate impacts for which no detail has yet been provided. In addition, should the EIA assessment show that further mitigation is needed for fish and shellfish, this should be addressed.

### **Transboundary impacts**

Potential transboundary impacts are discussed in Section 9.2.9. We agree that transboundary impacts can be scoped out from further consideration.

#### Habitats Regulations Appraisal (HRA) Screening Report

An HRA Screening Report has been submitted with the EIA Scoping Report, which is welcomed.

Section 4.3 discusses the Screening process in relation to sites designated for diadromous fish and no European sites designated for Annex II diadromous fish and shellfish species are proposed to be taken forward.

We advise that for diadromous fish species there is limited knowledge of distribution and behaviour of these species in the marine environment and thus it is not possible to carry out an assessment of impacts to diadromous fish to the level required under HRA. Therefore, at this time we advise that diadromous fish species should be assessed through EIA only and not through HRA.

#### APPENDIX F – MARINE MAMMALS

Marine mammals and other megafauna are considered in Section 9.3 of the EIA Scoping Report and Sections 4.4 and 5.3 of the HRA Screening Report. We note that there are specific questions under Section 9.3.12, which we answer within our advice below.

#### Study area

We are content with the proposed study areas, which are considered at two scales: local and regional scale.

#### **Baseline characterisation**

#### Data sources

We appreciate that the data sources have been split into those used to inform the scoping phase and the additional sources to be used in the EIA Report. Other data sources which have recently been published include the SCANS IV modelling report<sup>5</sup> and SCOS (2024)<sup>6</sup> For seals data, note that Carter et al. (2022) has been updated to Carter et al. (2025)<sup>7</sup>.

#### Site-specific surveys

We note that the full 24 months of Digital Aerial Survey (DAS) data are not yet available. Any further species recorded in the DAS should be included within the EIA Report. Otherwise, we are content with the species currently identified.

#### Receptors

Noting our comment regarding DAS above, we are content with the species currently identified. Moreover, we are content with basking sharks being covered in the Fish & Shellfish chapter.

#### Species densities

For the impact assessment, we agree that the most precautionary density estimates should be used and that the UK portion of the species-specific Management Units (MU) should be taken for the population estimates.

We agree that the IAMMWG (2022) population estimates are underpinned by SCANS III data, however the subsequent application for Stoura Offshore Wind Farm is expected in 2028/2029, whereby we would expect that the MU population estimates will have been updated with the most up to date scientific literature. We would welcome further engagement on data to be used within the quantitative assessment prior to preparing the application.

hannover.de/fileadmin/57 79 terr aqua Wildtierforschung/79 Buesum/downloads/Berichte/SCANS-IV Modelling Report final 20250514.pdf

<sup>&</sup>lt;sup>5</sup> https://www.tiho-

<sup>&</sup>lt;sup>6</sup> https://www.smru.st-andrews.ac.uk/files/2025/05/SCOS-2024.pdf

<sup>&</sup>lt;sup>7</sup> https://www.gov.scot/publications/updated-habitat-based-sea-distribution-maps-harbour-grey-seals-scotland/pages/6/

#### **Potential impacts**

We are broadly content with the impacts scoped in (Table 9.16 and Table 9.17) and out (Table 9.18), noting one comment below.

It was discussed and agreed during the Scoping Workshop that 'Injury or disturbance to otter from underwater noise' would be scoped in for all stages of development for otters. We note that 'Noise and visual disturbance in air' is scoped in for otters, but highlight that this should also consider impacts from underwater noise specifically. This is relevant to otters within their range adjacent to the coastline only i.e. to be considered as part of the ESCA.

#### Approach to assessment

The proposed approach to assessment is high level and lacking detail, however, we provide the following comments to steer the overall direction. Our advice in relation to underwater noise is included within Appendix B.

#### Magnitude and sensitivity

We would appreciate the opportunity to advise on the magnitude and sensitivity criteria used for the marine mammal assessments before the impact assessment portion of the EIA Report commences. This is due to recent experience of EIA Report submissions in which we have some issues with the criteria used.

#### **Cumulative impacts**

Potential cumulative impacts are discussed in Section 9.3.8. We advise that all impacts are considered cumulatively regardless of the significance of potential impact on marine mammals from the proposal alone assessment. This is because an impact could be of higher significance cumulatively when scaled up with other Projects within the species management unit.

We recommend including all projects up to a year on either side of the proposal, looking at both temporal and spatial overlap, and advise that if the Cumulative Effects Framework (CEF) is published within project timeframes, then it should be used as part of the cumulative assessment. If it is not published, we recommend the use of the interim Population Consequences of Disturbance (iPCoD) model.

Where underwater noise outputs are not available for other projects, we can accept the use of Effective Deterrent Ranges [EDRs] as a suitable proxy but do not support the use of EDRs generally in project specific assessment.

#### **Transboundary impacts**

Potential transboundary impacts are discussed in Section 9.3.10 and we are content with the potential impacts identified, noting that these will be considered in more detail within the EIA Report.

#### Mitigation and monitoring

We welcome the identification of designed in measures and mitigation as per Section 9.3.6. However, as noted in the cover letter, much of the embedded mitigation includes adherence to post-consent plans and/or programmes. Plans do not strictly constitute mitigation as it is the

measures contained within the plans/programmes that will mitigate impacts for which no detail has yet been provided. However, we appreciate these measures being considered at this stage, especially in terms of routine inspection of mooring lines and cables to monitor for discarded fishing gear.

No information has been provided on potential monitoring, however, we encourage the consideration for collaboration with other nearby developments (i.e. Arven Offshore Wind Farm) to gather baseline data that might inform the assessment and for regional strategic monitoring. As outlined in our Scoping Workshop advice and worth highlighting here "Arven Offshore Wind Farm are using passive acoustic monitoring for data collection and putting resources into other marine mammal [work] in the area. We would recommend that Stoura consider the possibility of collaborating or sharing/enhancing some of these studies. "

## **European Protected Species (EPS)**

For marine mammals, we expect the assessment to focus on impacts to cetaceans under EIA legislation. However, there is also a need to consider impacts to cetaceans within an EPS context, as far as reasonably practicable.

We do not expect a full EPS Risk Assessment at this stage but an understanding of the implications for cetaceans from the proposal under inshore and offshore regulations, together with mitigation options. This will provide confidence, should the proposal be consented, that any impact is able to be addressed through a subsequent derogation under EPS licensing. In our experience, leaving this entirely to the post-consent stage has led to difficulties and delays.

#### Habitats Regulations Appraisal (HRA) Screening Report

An HRA Screening Report has been submitted with the EIA Scoping Report, which is welcomed.

We agree with the screening ranges applied for cetaceans and otters. Our advice for all offshore wind farms is screening in seal SACs for assessment if the project boundary or the impact radius, whichever is larger, is within the screening ranges used for pinniped species (20 km for grey seals; 50 km for harbour seals). However, this is unlikely to change any of the SACs screened in for harbour and grey seals, and thus we are content with the sites included within the initial LSE Screening. Once the underwater noise modelling has been undertaken and the zone of influence is established, we are content that the list of SACs can be revisited in the RIAA if required.

Moreover, we are content with the impact pathways and the associated project phases screened in for further assessment in the RIAA.

We agree with the conclusion that Yell Sound Coast SAC, Hascosay SAC and Mousa SAC are taken forward for further assessment in the RIAA.

#### APPENDIX G - MARINE ORNITHOLOGY

Ornithology interests are considered in Section 9.4 of the EIA Scoping Report and Sections 4.5 and 5.4 of the HRA Screening Report. We note that there are specific questions under Section 9.4.12, which we answer within our advice below.

#### Study area

The proposed study areas are appropriate, which include the array plus a 6 km buffer, and the Export Cable Search Area (ECSA) plus a 10 km buffer.

#### **Baseline characterisation**

Digital Aerial Surveys (DAS)

The site-specific Digital Aerial Surveys (DAS) were commissioned for a period of 24 months and flown by APEM Ltd., from November 2022 to October 2024, covering an area of 460 km<sup>2</sup> approximately 52 km east of the coast of Shetland.

Please note that in our advice dated 17<sup>th</sup> February 2025, concerns were expressed about the validity of the DAS data given the slippage in the Stoura application timelines to 2028/29, which would mean that at least some of the existing survey data would not be within our 5-year period of acceptable data. Our understanding is that it is proposed to undertake additional survey work to address this issue. Further discussion around the DAS data (existing and new) to be used in the assessment will be required prior to submission.

#### Receptors

Paragraph 9.4.4.11 indicates that no species are proposed to be scoped out at this stage, but the list of species to be assessed will be reviewed once the full twenty-four months of DAS data have been processed. We are content with this, noting our comments above.

#### Kittiwake

The evidence for displacement of kittiwake is variable and therefore we currently advise that kittiwake is assessed for displacement as well as collision.

## Puffin

We highlight that puffin should be considered to be at risk of displacement only.

#### Guillemot

We note that one of the scoping questions in Section 9.4.12 refers to guillemot populations and was also asked as part of the Scoping Workshop. As such, we reiterate our advice, dated 27<sup>th</sup> March 2025, which addresses this question, also copied below.

Common guillemots in the UK are considered to be dispersive rather than migratory and they tend to stay in the vicinity of their breeding sites throughout the year.

The BDMPS report concludes that small numbers of common guillemots from Scandinavian and Faroese colonies reach northern Britain in autumn and winter and some enter the North Sea. Very few birds found in Shetland in winter appear to be from a subspecies which breeds in Arctic

Norway, Bear Island, Svalbard and northern Russia (Pennington et al. 2004), but these have only been found on a very few occasions, so numbers coming from far northern populations appear to be negligible.

In view of the above we do not consider that a significant part of the non-breeding season population comes from outwith the UK.

NatureScot advise that the non-breeding season BDMPS for guillemot comprises the breeding population found within the mean max foraging range plus one standard deviation (MMFR + 1SD), of the development.

#### Gannet

Paragraph 9.4.4.73 states that Northern gannet are categorized as having a high collision risk, with the collision risk modelling (CRM) likely needing the densities adjusted to account for macroavoidance. However, currently, we only accept the application of macro-avoidance in the non-breeding season.

#### Migratory species

The use of the Woodward et al. (2023a) report is welcome and the list of migratory species to be considered seems appropriate.

## **Potential impacts**

We are broadly content with the impacts scoped in and out as per Table 9.25 and 9.26, respectively, with a minor comment below.

#### Attraction to light

We recommend that disorientation is an important part of the 'attraction to light' impact pathway.

#### Approach to assessment

#### MRSea

NatureScot no longer requires the use of MRSea, except in particular circumstances where it may help clarify results from design-based approaches. Results from MRSea modelling have been found to be very similar to those from design-based estimates and as MRSea requires more computational time and effort, it seems unnecessary to use it.

Therefore, in general, design-based estimates of abundancies and densities of birds are acceptable.

#### Availability bias

New evidence on availability bias has recently been published which indicates that diving behaviour varies with season and location. As such, we now accept the monthly availability bias factors from Dunn et al. (2024)<sup>8</sup> for the months covered in the paper. For other months, the

<sup>&</sup>lt;sup>8</sup> Dunn et al 2024 Temporal and spatial variability in availability bias has consequences for 2 marine bird abundance estimates during the non-breeding season,

factors derived from the previous papers (i.e. Thaxter et al. (2010) for guillemot and razorbill, and Spencer (2012) for puffin) should be used.

## Collision Risk Modelling (CRM)

Please note that our CRM guidance has been updated<sup>9</sup> and this should be followed in all CRM assessments, along with the recent joint SNCB guidance<sup>10</sup>. Approaches and species parameters have changed so it is important to ensure that the most up to date guidance is used.

Paragraph 9.4.7.19 highlights that an initial review of all the species recorded within the array area study area in Section 9.4.4 has identified key species at risk of collisions from the first 18 month of data. The most abundant species, which are recognised as being susceptible to collisions are: kittiwake, northern gannet, European storm petrel, great black-backed gull and herring gull.

European storm petrels are not usually included in collision risk assessments as they generally fly too low to be at collision risk height, though there could be an increased risk of collision if attracted to lighting on WTGs. They can only be assessed qualitatively as there are no modelling parameters available for this species.

It is possible that great skua may need to be added to the list of susceptible species, depending on the outcome of the full DAS review.

#### Displacement

The displacement rates in Table 9.29 are different from those in Table 9.30. While we understand that different rates are used for different phases of the development in England, this is not the case in Scotland. NatureScot guidance note 8<sup>11</sup> should be followed, using the rates shown in Table 9.30 for all development phases.

### **Apportioning**

For apportioning, we highlight that the distance from the project to an SPA should be measured from geometric centre to geometric centre.

Additionally, the Butler tool currently uses population data from Seabird 2000 which is out of date, rather than Seabirds Count data. The tool will be updated as part of the Cumulative Effects Framework (CEF), but until this is available the tool cannot be used.

#### Puffin

We note that one of the scoping questions in Section 9.4.12 refers to apportioning for puffin and was also asked as part of the Scoping Workshop. As such, we reiterate our advice, dated 27<sup>th</sup> March 2025, which addresses this question, also copied below.

Currently, we advise the use of BDMPS for puffin in the non-breeding season.

<sup>&</sup>lt;sup>9</sup> https://www.nature.scot/doc/guidance-note-7-guidance-support-offshore-wind-applications-marine-ornithology-advice-assessing

<sup>&</sup>lt;sup>10</sup> Joint advice note from the Statutory Nature Conservation Bodies (SNCBs) regarding bird collision risk modelling for offshore wind developments, JNCC <a href="https://hub.jncc.gov.uk/assets/f7892820-0f84-4e96-9eff-168f93bd343d">https://hub.jncc.gov.uk/assets/f7892820-0f84-4e96-9eff-168f93bd343d</a>

<sup>&</sup>lt;sup>11</sup> https://www.nature.scot/doc/guidance-note-8-guidance-support-offshore-wind-applications-marine-ornithology-advice-assessing

It has been quite challenging on the east coast of Scotland to identify where the puffin have come from during the post breeding dispersal period and until recently, the DAS survey results shared with NatureScot have not recorded many puffin in the non-breeding season. As a result, some east coast projects have not assessed puffin in the non-breeding season. However, we are aware of ongoing work through NEEOG looking at how to consider puffin in the non-breeding season but this has not yet reported. This may be relevant to Stoura in the future.

We note that a few puffin were recorded in the Stoura DAS in the non-breeding season and so it may be necessary to consider puffin in this season. This should be revisited once data from the two full years of DAS are available.

### **Population Viability Analysis**

Paragraph 9.4.7.34 states that where the project alone mortality for a species is less than 0.2 birds per annum, a PVA for the in-combination effect is not required.

NatureScot no longer advises applying a threshold for the requirement of an in-combination PVA based on the project-alone mortality contribution (number of birds per annum). Due to Adverse Effect on Site Integrity already being predicted, or almost reached, at key SPAs, any project-alone mortality contribution which results in an in-combination impact equal to or exceeding a 0.02 percentage point change in annual adult survival rate will require a PVA. This applies to both EIA and RIAA assessments.

Regarding Paragraph 9.4.7.36, please note that NatureScot no longer requires PVA to be run over a 25 year time period. PVAs for the operational lifetime period (i.e. 35-years) will be our priority, as this is the duration we primarily use in our assessments. However, also presenting the 50-year period is useful as it allows us the opportunity to see if there is any recovery in the seabird populations between 35 and 50 years once the windfarm is no longer operating.

## **Cumulative impacts**

Projects should be scoped into the in-combination assessments based on the recommended species-specific foraging ranges given in NatureScot guidance<sup>12</sup>. For the non-breeding season, any projects taking place within the relevant Biologically Defined Minimum Population Scales (BDMPS) regions<sup>13</sup> should be taken into consideration (with the exception of guillemot, which remain relative to the breeding colonies throughout the year.)

Cumulative Effects Framework (CEF)

The CEF, due to be published in the Autumn, will be able to undertake the various ornithology assessments required both at individual project and in-combination levels. We recommend that this is used in the assessment for Stoura, once available.

<sup>&</sup>lt;sup>12</sup> <u>Guidance Note 3: Guidance to support Offshore Wind applications: Marine Birds - Identifying theoretical connectivity with breeding site Special Protection Areas using breeding season foraging ranges | NatureScot</u>

<sup>&</sup>lt;sup>13</sup> Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS) - NECR164

## **Transboundary impacts**

We are content with the approach to transboundary impacts, as per Section 9.4.10. We recommend that if transboundary effects are identified, the relevant SNCBs should be consulted as soon as possible, as there are significant differences between guidance across the SNCBs.

## Mitigation and monitoring

We welcome the identification of embedded mitigation described in Section 9.4.6.

However, as noted previously, much of the embedded mitigation includes adherence to post-consent plans / programmes. Plans do not strictly constitute mitigation as it is the measures contained within the plans / programmes that will mitigate impacts for which no detail has been provided yet.

It is noted that the significance of the effects on seabird receptors will determine the need to consider any additional mitigation measures, which is appropriate.

Regarding species attracted to and / or disorientated by artificial light sources – we recommend considering the findings of Deakin *et al.* (2022). Additionally, we advise that protocols are built into the construction and operational phases for monitoring and handling of any birds attracted to infrastructure or vessels by lighting, as well as recording of any such incidents.

## **Habitats Regulations Appraisal (HRA) Screening Report**

An HRA Screening Report has been submitted with the EIA Scoping Report, which is welcomed.

Digital Aerial Surveys (DAS)

Only results from the initial 18 months (November 2022 to April 2024) of monthly DAS were available to inform the HRA Screening Report. Please note that no sites/species can be screened out based on incomplete data.

As above, we have concerns about the validity of the DAS data given the slippage in the Stoura application timelines to 2028/29, which would mean that at least some of the existing survey data would not be within our 5-year period of acceptable data. In light of this, the screening process may need to be revisited to take account of new DAS surveys. Our advice here is therefore only provisional as it is based on incomplete data.

#### Criterion 1

Paragraph 4.5.2.5 states that there are no European sites with relevant marine ornithological qualifying species that overlap with the Offshore Scoping Boundary. However, from Figure 4.3, it appears that the Offshore Scoping Boundary overlaps with the East Mainland Coast, Shetland SPA.

#### Connectivity

We are content with the foraging ranges used in Table 4.4, which are in line with our guidance.

#### Seabird assemblage

In paragraph 4.5.2.15, it is noted that the current practice in Scotland is to acknowledge the existence of a seabird assemblage as a qualifying feature on the citation, but without it having relevant conservation objectives.

This is correct, however, seabird assemblages should be included in the screening process and in the RIAA. If, for example, the seabird assemblage for a site includes a qualifying species for which there is connectivity then the assemblage feature will also have connectivity. If, for a qualifying species of an SPA, there is Adverse Effect on Site Integrity then this will automatically apply to the assemblage feature as well.

#### Breeding colonies in the breeding season

There are a number of errors in Table 4.5 and some sites have been omitted completely. We provide further comments below, noting that this list may not be exhaustive and the table should be fully checked.

- Hoy SPA should include arctic skua (no connectivity) and kittiwake and puffin should have connectivity.
- Sule Skerry and Sule Stack SPA should have connectivity for storm petrel.
- Buchan Ness to Collieston Coast SPA does not have gannet as a qualifying species but should have guillemot.
- North Rona and Sula Sgeir SPA should have Leach's petrel as a qualifying species, European storm petrel is included twice.
- Cromarty Firth SPA should include greylag goose.
- Mousa SPA should have European storm petrel, not Leach's petrel.
- The following SPAs should have been included:
  - Papay Westray (North Hill and Holm)
  - Marwick Head
  - Pentland Firth Islands
  - o Rum
  - Mingualay and Berneray
  - Canna and Sanday
  - Ailsa Craig
  - Priest Island
  - Treshnish Islands
  - Seas off St Kilda
  - Seas off Foula
  - North Colonsay and Western Cliffs
  - Copelands Island
  - Moray Firth

## Breeding colonies in the non-breeding season

Our advice above regarding the DAS data also applies to the non-breeding season.

Paragraph 4.5.2.23 states that only SPAs that comprise more than 5% of the relevant BDMPS population will be considered to have connectivity with the offshore project during the non-breeding season. However, we do not accept the use of a threshold in this way during screening.

#### Migratory seabirds

Paragraph 4.5.2.25 states that for screening, migratory seabird SPAs and Ramsar sites are limited to the north-east coast of Scotland, as this is where the largest number of migrants will make landfall. This approach does not seem to be appropriate. Our guidance states:

'An updated review of migratory routes and vulnerabilities across the UK has been published by Marine Directorate and The Crown Estate. This work also includes development of a stochastic migration CRM tool (known as mCRM) to enable quantitative assessment of risks to migratory SPA species including swans, geese, divers, seaduck and raptors.

The Scottish Government's strategic study of collision risk for birds on migration <u>Work Package 1:</u> Strategic review of birds on migration in Scottish waters should be used alongside the associated Stochastic Collision Risk Model for migratory species'

The review provides information on migratory routes for each relevant species and these routes are likely to encompass far more sites than simply those on the north-east coast of Scotland. For each species all sites with potential connectivity should be included on the long list. The mCRM tool should be applied to all relevant species.

In addition, a number of SPAs/species on or near the north-east coast have been omitted from the list provided. These include:

- Cromarty Firth greylag goose is missing
- Moray Firth
- Dornoch Firth
- Outer Firth of Forth and St Andrews Bay Complex no migratory birds are included
- Loch Leven
- Firth of Tay and Eden Estuary
- Firth of Forth
- Montrose Basin
- Loch of Skene

#### Marine SPAs

The HRA Screening Report states that there are no marine SPAs with connectivity with the offshore project. However, currently, the ECSA includes sections of the East Mainland Coast, Shetland SPA which is a marine SPA, and therefore there is potential for connectivity with this site. We note that this SPA has been included in Table 4.5, but we highlight for consistency.

#### Table 4.8: European designated sites

Please note that the comments provided above in relation to Table 4.5 may apply to this table too.

## Table 5.9: SPAs and Ramsar Sites

Please note that the comments provided above in relation to Table 4.5 will apply to this table too. In particular:

- Ronas Hill North Roe and Tingon should have red-throated diver
- Fair Isle should have razorbill
- Hoy should have kittiwake and puffin
- Sule Skerry and Sule Stack should have European storm petrel
- North Rona and Sula Sgeir should have Leach's petrel
- Mousa should have European storm petrel not Leach's petrel

## Impact pathways

Table 5.10 includes all the relevant impact pathways. We recommend that disorientation is an important part of the 'attraction to light' impact pathway.

#### Table 5.11: LSE matrix for SPAs and Ramsar sites

Please note that the comments provided above in relation to Table 4.5 may apply to this table too.

Within the table where a likely significant effect (LSE) cannot be ruled out for a given impact a ' $\checkmark$ ' symbol is included and the box is shaded blue. Where an LSE has been ruled out, an 'X' symbol is included, and the box is shaded green. In some cases, the shading does not match the symbol, which may cause confusion.

Furthermore, we have the following comments:

- Great skua is at risk from collision but has not been included in this impact pathway for most sites.
- Fulmar is not considered to be at risk from collision.
- Gannet has not been included as at risk from UXO clearance or entanglement, which is unexpected as gannets dive to 20m and could therefore be at risk from these pathways. – noting depending on method of clearance of UXO this impact pathway may or may not be required.

## **Procellariiformes**

European storm petrel, Leach's petrel and Manx shearwater generally fly too low to be at collision risk height, but there could be a possible increased risk of collision if they are attracted to and/or disoriented by lighting. These species should be assessed using a qualitative approach in the application, as modelling parameters are not available.

#### Approach to the in-combination assessment

Projects should be scoped into the in-combination ornithology assessments based on the recommended species-specific foraging ranges given in NatureScot guidance<sup>14</sup>. For the non-breeding season, any projects taking place within the relevant Biologically Defined Minimum Population Scales (BDMPS) regions<sup>15</sup> should be taken into consideration (with the exception of guillemot, which remain relative to the breeding colonies throughout the year).

Paragraph 6.1.1.4 states that at the assessment stage, details about projects, plans, or activities screened into the in-combination assessment will be gathered. Where likely effects for the offshore project alone are negligible, or where impacts are highly localised, they will not be considered within the offshore project in-combination assessment, as in-combination effects with other developments are unlikely.

Please note that we no longer advise applying a threshold for the requirement of an incombination PVA based on the project-alone mortality contribution (number of birds per annum). Due to Adverse Effect on Site Integrity being predicted or almost reached at key SPAs, *any* project-

<sup>&</sup>lt;sup>14</sup> <u>Guidance Note 3: Guidance to support Offshore Wind applications: Marine Birds - Identifying theoretical connectivity with breeding site Special Protection Areas using breeding season foraging ranges | NatureScot</u>

<sup>&</sup>lt;sup>15</sup> Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS) - NECR164

alone mortality contribution which results in an in-combination impact equal to or exceeding a 0.02 percentage point change in annual adult survival rate will require a PVA. This applies to both EIA and RIAA assessments.

## Summary of LSE

Please note that the comments provided above in relation to Table 4.5 may apply to Table 7.2 too.

#### APPENDIX H – JNCC ADVICE ON POBIE BANK REEF SAC

JNCC's role in relation to project level advice for offshore renewables has been delegated to NatureScot. NatureScot is now authorised to exercise JNCC's functions as a statutory consultee in respect of certain applications for offshore renewable energy installations in inshore and offshore waters (0-200 nm) adjacent to Scotland.

JNCC however, maintains responsibility for offshore Marine Protected Areas (MPAs). As such, JNCC have provided the following advice in relation to the Stoura Offshore Wind Farm Environmental Impact Assessment (EIA) scoping and Habitat Regulation Appraisal (HRA) Likely Significant Effect (LSE) screening requests to provide a view on nature conservation matters related to the Pobie Bank Reef Special Area of Conservation (SAC). JNCC have not reviewed other parts of this application and will not be providing comment on parts other than those relevant to Pobie Bank Reef SAC.

The following documents were reviewed in providing this response:

- Stoura Offshore Wind Farm, Offshore Scoping Report, dated June 2025
- Stoura Offshore Wind Farm, Offshore LSE Screening Report, dated June 2025

Sections of the following chapters were reviewed in providing this response:

#### Offshore Scoping Report:

- Chapter 1: Introduction
- Chapter 2: Policy and Legislation
- Chapter 3: Project Description
- Chapter 4: EIA Methodology
- Chapter 6: Site Selection and Consideration of Reasonable Alternatives
- Chapter 7: Topics to be Scoped Out
- Chapter 8: Offshore Physical Environment
- Chapter 9: Offshore Biological Environment

#### Offshore LSE Screening Report:

- Chapter 1: Introduction
- Chapter 2: Habitats Regulations Process
- Chapter 3: Project Description
- Chapter 4: Identification of European Sites and Features
- Chapter 5: Determination of Likely Significant Effect
- Chapter 6: Approach to the In-combination Assessment
- Chapter 7: Summary of LSE

The following advice relates to MPAs within the offshore environment, extending out from the 12nm limit. For all other advice, we defer to NatureScot.

#### **Overall comments**

The project is located adjacent to Pobie Bank Reef SAC with the Export Cable Corridor Search Area overlapping the entire protected site. The Stoura Offshore Wind Farm includes one Option Agreement (OA) area within the ScotWind NE1 area. Two export cables with a maximum indicative total length of 140km per cable are proposed. However, the defined cable routes, have not yet been finalised.

## Pobie Bank Reef SAC

Pobie Bank Reef SAC is designated for Annex I Habitat "Reefs". The current conservation objective for Pobie Bank Reef SAC is to maintain/restore the Annex I Reef at/to 'Favourable Condition'. We take this opportunity to emphasise the importance of assessing all potential operational impact-pathways in combination with the Site Information Centre documents on the JNCC website: <a href="https://jncc.gov.uk/our-work/pobie-bank-reef-mpa">https://jncc.gov.uk/our-work/pobie-bank-reef-mpa</a>.

JNCC understand that the export cables are covered by the Holistic Network Design (HND) plan undertaken by the National Energy System Operator (NESO) rather than the Scottish Sectoral Marine Plan. The HND and draft report to inform an appropriate assessment clearly show export cable routes that run to the south of the Pobie Bank Reef SAC. If an alternative route is being considered by the developer this must be assessed against the route in the HND in terms of impacts to the Pobie Bank Reef SAC.

In terms of the HRA, JNCC strongly advise the Applicant to follow the mitigation hierarchy and avoid routing export cables through Pobie Bank Reef SAC. If further mitigation measures are to be considered, then only mitigation measures that are sufficiently certain and likely to be effective in practice should be taken forward in any appropriate assessment. Given the current conservation objective of the site is to maintain/restore the Annex I Reef at/to 'Favourable Condition', routing a cable through the SAC will move the SAC further away from its conservation objectives. This is consistent with advice provided by JNCC to other offshore industry sectors.

If the Applicant opts to route export cables through the Pobie Bank Reef SAC, JNCC would expect high resolution geophysical data to be collected along the proposed route to allow for accurate assessment of impact to this protected site and the Annex I Reef feature prior to the application being submitted. We are of the opinion that, in order to robustly undertake the EIA and HRA, site-specific geophysical survey data will be required. Sufficient detail will need to be provided within the assessments to justify the route option chosen, including environmental considerations, and also the success (including throughout operation and maintenance phases) of any mitigation options proposed. A detailed and thorough cumulative impact assessment will also need to be undertaken. Noting the conservation objectives for the SAC and the potential impacts from routing the cable through the SAC, a shadow derogation case for compensation may also need to be considered by the developer, alongside the EIA and HRA assessments.

## **Comments on the Stoura Offshore Wind Farm Offshore Scoping Report**

Chapter 3: Project description

Section 3.5 Offshore infrastructure: Offshore export cables (page 38)

We understand that two export cables will be located within the export cable search area, connecting the Offshore Substation Platform (OSP) to land. JNCC's preferred scenario, as also advised to NESO and detailed above, would be to avoid impact to Pobie Bank Reef SAC by routing the cables outside of the protected site completely.

If the applicant decides against routing of the cable to avoid the Pobie Bank Reef SAC then JNCC would prefer cables to be bundled together, assuming this would have the smaller seabed impact footprint within the SAC and that this would not hinder any decommissioning options for the future.

If alternative cable protection methods are to be utilised when crossing over hard substrates, such as the Annex I Reefs of Pobie Bank Reef SAC (Section 3.5.3.21), we would encourage that these are fully assessed in terms of impact to the Annex I Reef features for all three phases (Construction, Operation and Maintenance, and Decommissioning).

We understand that the maximum number of crossings will be 15, depending on where the final cable route is located. As cable crossings will require external cable protection, we advise that the Applicant should try to avoid locating cable crossings within the Pobie Bank Reef SAC so as to limit the potential permanent habitat loss within a protected site with a conservation objective to maintain/restore the Annex I Reef at/to 'Favourable Condition'.

Chapter 4: EIA methodology

Section 4.3 Legislation and guidance

We advise that the subsea cables guidance produced by Natural England and JNCC should be added to this list. The guidance covers UK offshore waters and so is relevant to the offshore portion of the cable route. This is a live document which is periodically updated and so can be accessed upon request through the Defra SharePoint linked on the page below.

 $\frac{https://naturalengland.blog.gov.uk/2022/10/11/hot-off-the-press-natural-englands-research-to-support-offshore-wind/$ 

Chapter 6: Site selection and consideration of reasonable alternatives

Section 6.4 Refinement of scoping area

Regarding Section 6.4.1.2, we understand that the Pobie Bank Reef SAC presents a significant challenge in terms of cable routing. However, we expect the corridor presented in the HND plan to be the starting point against which a number of alternative routes should be assessed. We also advise that the Applicant scores and ranks routes that go through the site at a feature level, with those routes that avoid features scoring more favourably. Feature data from 2016 are available on

the JNCC MPA Mapper. Data from the 2021 and 2023 surveys will be available once they have been analysed and we would encourage the Applicant to keep up to date on this <sup>16</sup>.

#### Chapter 8: Offshore physical environment

Table 8.3: Impacts proposed to be scoped into the Offshore Project assessment for physical processes

We agree with the potential for elevated Suspended Sediment Concentrations (SSC) in the water column and deposition of material on the seabed leading to a local change in seabed level and/or seabed sediment type being scoped in for all project phases. We advise that site-specific data and modelling should be used to understand the distance from the cable corridor over which this impact pathway may occur. We advise that the Applicant should look at the sensitivity of designated Annex I Reef features of Pobie Bank Reef SAC, as well as the sensitivity of the biological communities the reef feature supports, in order to understand the magnitude and significance of this impact.

#### Chapter 9: Offshore biological environment

Section 9.1 Benthic ecology

Regarding Section 9.1.2.1, we agree with the approach of the local benthic study area being based on site-specific modelling of the tidal regime in order to understand the maximum potential distance over which increased SSC may be deposited. We also agree with the regional benthic ecology study areas being refined to reflect the physical processes modelling and stakeholder engagement. We advise the Applicant should engage with the relevant stakeholders who can advise on the site-specific physical processes modelling. We also advise that until the Applicant has site-specific physical processes modelling, they should adopt a precautionary approach to the potential impact distance over which SSC may be deposited. Please see our comments on the screening ranges applied for each receptor group considered in the Stage 1 LSE Screening Receptor Group which are also applicable here for the benthic ecology study area.

#### Table 9.1: Summary of key desktop datasets and materials

In relation to the Pobie Bank Reef SAC, JNCC consider that the most up-to-date survey information is available through our Site Information Centre or, where more recent site-survey data is available directly from JNCC, and these should be used as an evidence base layer over any broadscale distribution modelling. Directed surveys by the Applicant are welcome and will be considered. The Pobie Bank Reef SAC Site Information Centre can be found at <a href="https://jncc.gov.uk/our-work/pobie-bank-reef-mpa">https://jncc.gov.uk/our-work/pobie-bank-reef-mpa</a>. Please see our comment on section 6.4 regarding data from the 2021 and 2023 surveys becoming available soon.

We recommend developers use the Marine Pressures-Activity Database (PAD) found at <a href="https://hub.jncc.gov.uk/assets/97447f16-9f38-49ff-a3af-56d437fd1951">https://hub.jncc.gov.uk/assets/97447f16-9f38-49ff-a3af-56d437fd1951</a> and MarESA (Marine

<sup>16</sup> https://jncc.gov.uk/mpa-mapper/

Evidence based Sensitivity Assessment (MarESA) found at <a href="https://www.marlin.ac.uk/">https://www.marlin.ac.uk/</a> to understand and assess the potential impacts on specific habitats.

#### Section 9.1.4 Baseline Environment

Within Section 9.1.4.6, the Applicant has used preliminary survey results available from the Arven Offshore Windfarm benthic survey strategy. They have also specified that if full benthic survey results are available at the time of writing the EIA Report, they will incorporate these results into the Report. We encourage the sharing of survey data amongst developers of projects located within similar regions. However, this should not be a substitute for the project-specific data the Applicant plans to collect for the Stoura Offshore Project. We also advise that full, processed, site-specific survey results would be required to inform the assessment at the EIA Report and HRA stage.

The Applicant has assessed the presence of Priority Marine Feature (PMF) benthic habitats and species but they have not assessed if there are OSPAR features present within the area (Section 9.1.4.10). OSPAR threatened and/or declining features are also relevant in Scottish waters and so the developer should be aware of their presence as well.

#### Table 9.3: Impacts proposed to be scoped into the Offshore Project assessment for Benthic Ecology

The activities listed within the justification for scoping impacts in does not appear to be exhaustive and we understand that the activities associated with impacts will be determined once the maximum design scenario is finalised. For example, within the justification for the permanent and/or long-term habitat loss, the Applicant has not acknowledged that additional cable protection may need to be deposited along the cable route, creating additional habitat loss to the original cable protection deposited during the construction phase.

We note that Unexploded Ordinance (UXO) clearance has not been included here as an activity for any of the impacts and we assume this is because the Applicant will be applying for a separate Marine Licence for UXO clearance should this be necessary (as detailed within Section 3.7.1.6). We would expect the applicant to assess a worst-case scenario for benthic impacts from UXO clearance within the EIA Report, based on data collected during site-specific geophysical surveys.

#### Section 9.1.6 Designed in measures and mitigation

We note that the Applicant plans to develop and adhere to plans covering construction and decommissioning. However, the Applicant has not included a plan covering the operation and maintenance phase of the project. This may be embedded within one or multiple plans listed within this section and if so, the Applicant should make this clear.

#### Section 9.1.8 Cumulative impacts

The Applicant has not listed any of the impacts to be scoped in or out of the Cumulative Effects Assessment (CEA) for benthic features and so we cannot advise on whether we agree with the scoping conclusions. We advise that there are potentially significant cumulative impacts on the

Pobie Bank Reef SAC as a result of multiple projects interacting with the designated site and this should be considered carefully within the CEA.

#### Section 9.1.11 Data gaps

We note that the Applicant plans to collect site-specific survey data of the local benthic ecology study area which will be decided once the cable corridor has been refined. Only a high-level survey scope has been provided in the Scoping Report, and we understand that geophysical survey data will be used to extrapolate benthic data to characterise the environment. We advise that the benthic survey strategy should be based on the results of the processed geophysical data to ensure that all habitats present in the local benthic ecology study area are characterised.

We would not advise the use of grab sampling on Annex I Reef within the SAC and would encourage the use of Drop-Down Video (DDV). If grab sampling is required within the protected site, grab locations should be directed by DDV information with accurate positioning equipment to minimise direct impact from the grab equipment to the protected Annex I feature.

#### **Comments on Stoura Offshore Wind Farm LSE Screening Report**

Chapter 4. Identification of European sites and features

Table 4.1: Screening ranges applied for each receptor group considered in the Stage 1 LSE Screening Receptor Group

For the identification of protected sites to be considered in the Stage 1 LSE Screening Receptor Group, JNCC recommends the use of impact pathways to inform the distance at which the activities may affect the SAC. We also advise that 5km is not precautionary enough for the screening of Annex I habitats and until site-specific modelling for increased SSC and sedimentation has been conducted it would be more appropriate to apply the precautionary principle and use a greater screening distance. Based on previous projects of a similar nature, a screening range of 10-15km would be considered more appropriate. We note that Arven Offshore Windfarm used a screening distance of 12km for benthic and intertidal habitat receptors based on the tidal excursion impacting up to 8km from the Offshore Proposed Development.

Table 5.2: Pathways for LSE: potential impacts on Annex I habitats (offshore and coastal)

JNCC disagree with 'colonisation of hard structures' and 'changes in physical processes' being screened out for the decommissioning phase. There is potential for artificial offshore infrastructure such as cable protection to be left *in-situ* within Pobie Bank Reef SAC following decommissioning.

We disagree with 'removal of hard substrates' being screened out for the operation and maintenance phase. There is potential for artificial offshore infrastructure to be removed during the lifetime of the project should it need replacing. For example, if concrete mattresses used as cable protection need replacing.

Table 5.3: LSE matrix for SACs with Annex I habitats (offshore and coastal)

and

Table 7.1: Summary of the European sites and relevant qualifying features (Annex I habitats and Annex II marine mammals) for which potential LSEs have been identified and further assessment is required in the RIAA

Please see our above comments in relation to 'colonisation of hard structures', 'changes in physical processes', and 'removal of hard substrates' which are applicable again to this LSE matrix and summary table.

# Northern Lighthouse Board (NLB)



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Website: www.nlb.org.uk Email: enquiries@nlb.org.uk

Your Ref: SCOP-0071 – Stoura OWF – Scoping Report

Our Ref: AL/OPS/ML/WIND\_056\_25

Ms Jennifer Goodheir Licensing Operations Team – Marine Directorate Scottish Government Marine Laboratory 375 Victoria Road Aberdeen AB11 9DB

22 July 2025

REGULATION 14 OF THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
REGULATIONS 2017; REGULATION 12 OF THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017 & REGULATION 6 OF THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (collectively referred to as the "EIA Regulations")

<u>Shetland Offshore Wind Ltd – Stoura Offshore Wind Farm – ScotWind NE1 Site, Located Approximately</u> 28nM East of Shetland

Thank you for your e-mail correspondence dated 8<sup>th</sup> July 2025 relating to the Scoping Report submitted by **Shetland Offshore Wind Ltd** for the proposed development of the Stoura Offshore Wind Farm, located approximately 28nM east of Shetland.

It is noted that the project will consist of a maximum of 40 Wind Turbine Generators (WTG) utilising floating foundations, with a maximum capacity of 500MW. A single Offshore Substation (OSS) or Subsea Substation and a maximum of two export cables will be considered within the EIA Report, with a proposed landfall either at Yell Sound or Skellister/Eswick on the Shetland mainland. It is also noted that up to two Mid-point Compensator Stations may be included in the design.

Northern Lighthouse Board acknowledge that wet storage of both component parts and completed WTG may be utilised by the project, and that the EIA will consider this as part of the Cumulative Effects Assessment as far as possible. NLB welcome the early engagement with Lerwick Port Authority regarding potential wet storage solutions detailed within Section 5.3.1.2.

NLB respects your privacy and is committed to protecting your personal data. To find out more, please see our Privacy Notice at <a href="https://www.nlb.org.uk/legal-notices/">www.nlb.org.uk/legal-notices/</a>

Ms J Goodheir SCOP-0071 - Stoura OWF - Scoping Report Pg. 2

NLB also acknowledge the inclusion of Section 10.2 – Shipping and Navigation within the report, and welcome the commitment to develop Post-Consent documentation including a Lighting and Marking Plan (LMP), Development Specification and Layout Plan (DSLP) and a Navigational Safety Plan (NSP) as embedded mitigations across all phases of the project. NLB Navigation Department will continue to engage with the developer with regard to these documents.

NLB welcome the commitment within Section 10.2.8 - 10.2.10 that both Cumulative, Inter-related and Transboundary Effects will be assessed within the Shipping & Navigation EIA chapter.

Northern Lighthouse Board would like to request that within Table 10.6, Line 5 (Loss of Station of a Floating Wind Turbine), that this is expanded to include the sinking of a turbine or vessel within or adjacent to the array area, or a turbine under tow to or from the array.

NLB also request that Failure of an Aid to Navigation (AtoN) be considered within the Navigational Risk assessment, within an appropriate topic. This should include both Construction Phase buoyage and Operational Phase AtoN. The mitigations identified from this assessment should then be included within the project LMP.

As identified within Section 10.2.4.10, Northern Lighthouse Board operate a number of key Aids to Navigation within this area. The closest of these are Out Skerries lighthouse, approximately 17.5nM west of the array area, and Muckle Skerry lighthouse, approximately 23nM west of the array area. NLB do not consider that the Stoura OWF development will impact these AtoN or their navigational significance.

NLB operate two ships in support of our statutory obligations under the Merchant Shipping Act 1995. These two ships regularly transit the waters around Shetland, and also conduct inspections of oil and gas infrastructure in the Northern North Sea. These transits would incorporate inspections of the Stoura OWF. As such, it is not considered that the development will have a negative impact on NLB vessel operations.

Northern Lighthouse Board would also like to highlight the recent publication of IALA Guideline G1185 – Enhancing the Safety and Efficiency of Navigation Around OREI for inclusion as a relevant publication within Section 10.2.7.1.

NLB have no further suggestions or objections to the Scoping Report.

Yours sincerely

## [Redacted]

Peter Douglas
Navigation Manager

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## North Sea Transition Authority (NSTA)

From: Stuart Walters (North Sea Transition Authority)

To: MD Marine Renewables

Subject: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on Request for

Scoping Opinion – Response Required by 07 August 2025

**Date:** 31 July 2025 11:27:54

Attachments: <u>image001.png</u>

#### Good Morning,

**Authority** 

Many thanks for the invitation to comment on the Scoping Opinion for the Stoura Offshore windfarm, this is to confirm a nil return from the NSTA.

#### Thanks,

Stuart Walters

Senior Policy Manager - Energy Transition

4th Floor rear Broadway Buildings

North Sea 50 Broadway London

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[Redacted]

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## **RSPB Scotland**



#### This letter is sent by email only

Abby Gray
Marine Licensing and Consenting Casework Officer
Licensing Operations Team
Marine Directorate
Scottish Government
Marine Laboratory
Aberdeen
AB11 9DB

By email: MD.MarineRenewables@gov.scot

10 September 2025

Dear Abby,

STOURA OFFSHORE WIND FARM – CONSULTATION REQUEST FOR SCOPING AND HRA SCREENING OPINION REGULATION 14 OF THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017

Thank you for consulting RSPB Scotland on the above proposal. We understand the proposed development will comprise up to up to 40 WTGs on likely floating platforms with a height to the blade tip of up to 385 metres.

While noting that broad search areas are indicated within the plans, we understand that this consultation request relates only to offshore generation and transmission assets, i.e. that associated onshore infrastructure will be subject to separate regulatory and consenting processes.

Faced with the threats of climate change to the natural world, RSPB considers that a low-carbon energy transition to reach net zero is essential to safeguard biodiversity. However, inappropriately sited and designed developments can cause serious and irreparable harm to biodiversity and must be avoided. We have reviewed the screening and scoping report in this context and offer the following comments.

#### **General Comments**

The UK is of outstanding international importance for its breeding seabirds and wintering marine birds. As with all Annex I and regularly migratory species, the UK has

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a particular responsibility under the Birds Directive to secure their conservation. Their survival and productivity rates can be impacted by offshore windfarms directly (i.e. collision) and indirectly (e.g. displacement from foraging areas, additional energy expenditure, potential impacts on forage fish and wider ecosystem impacts such as changes in stratification).

RSPB Scotland encourage the adoption of a precautionary approach to the identification of relevant protected sites for seabirds with clear methodology on the exclusion of sites and species. We generally agree with the collection and analysis methods advised by NatureScot, with some exceptions as set out below. We recommend use of the guidance notes available on their website to inform assessment. If an Applicant chooses to undertake supplementary modelling using alternative parameters to that recommended, we suggest this is clearly labelled.

As set out in Searle et al (2023)<sup>1,</sup> assessing impacts of offshore windfarms and other renewables developments is inherently uncertain. This uncertainty is propagated throughout the impact assessments, as there are not only direct impacts, but ecosystem wide impacts that can change, for example, the abundance and availability of prey. Multiple data sources and modelling techniques are used to capture a simplified version of reality. They do not fully capture the complexity of seabird behavioural or demographic processes in a dynamic marine environment.

Not recognising these uncertainties risks poorly informed decisions being made. Furthermore, an underestimation of impacts will have repercussions when consenting later offshore wind development. If a precautionary approach is taken from the beginning, the likelihood of irreversible damage occurring is reduced even whilst our knowledge base is incomplete, and modelling improves.

#### **Detailed Comments**

We understand that the generating capacity of the proposed windfarm would be in the order of 500MW from up to 40 WTGs. If the number and size of the turbines to be installed changes or is uncertain when the application for the development is submitted, RSPB Scotland assumes that any assessment submitted in support of the application will reference the 'worst case scenario' when it comes to identifying likely significant effects.

We further understand that this report is for the wind farm development area only, with the offshore and onshore consenting and licencing applications to follow later.

Due to capacity constraints, and the high volume of consultation we are currently dealing with, we have not been able to interrogate every detail of the information presented.

RSPB Scotland welcome the use of three breeding seasons' surveys, including years where there were the greatest impacts of HPAI on seabirds and some migratory terrestrial species. This additional work will provide useful information as to how the

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outbreak affected numbers recorded during surveys. We would also want consideration of the robustness of affected populations to any additional mortality arising through the development in the years following the outbreak.

While we acknowledge that Digital Aerial Surveys (DAS) provide important data for assessment, there are several methodological and presentational considerations that should be included in the assessment. These are detailed in a report drafted by a subgroup of the NatureScot Scientific Advisory Committee, Offshore Wind Ornithological Impact Assessment - Review of Digital Aerial Survey Methods<sup>2</sup>. The recommendations included in this report should be included in the reporting of the results of the surveys.

We note that low numbers of Leach's Storm Petrel and Manx Shearwater were recorded during surveys. These low numbers may be an artifact of the survey methodology. As highlighted in Deakin *et al.* 2022, DAS are likely to have inherent biases in the counts of these species. The first of these biases is related to the small size and consequent detectability of these species, particularly when on the water surface. Furthermore, both species are active throughout the diel cycle, with different levels of activity depending on location and behaviour. As DAS flights are typically restricted to the middle of the day the results are potentially biased against birds active on the site during the nighttime or crepuscular hours.

We welcome that impacts through light attraction on Petrel and Shearwater species have been screened in. All these species can be subject to attraction to light (such as those on turbine nacelles) and <sup>3</sup> disorientation, (Deakin et al. 2022 ()) Such attraction, and -disorientation, could have both direct and indirect impacts on these species. Direct impacts would be collision of birds that have altered their flight trajectory to enter the rotor swept zone, and it is most likely best considered by amended collision risk models. Indirect impacts could be through the energetic consequences of additional flight, which could result in subsequent mortality or reduced breeding performance. RSPB Scotland welcomes ongoing discussion with the Applicant as to a suitable methodology for this assessment.

An important factor in any final application may also relate to enhancement in addition to compensation. This is because we understand consideration is being given to incorporating Marine Biodiversity Enhancement requirements into National Marine Plan 2 and, depending on application submission timeframes, this potential requirement should also be considered in relation to offshore elements. Regarding compensation we question if any thought has been given to regional compensation given the proximity of other wind farms proposals.

RSPB Scotland welcomes the numerous references in the Screening Report to NatureScot guidance having been followed and we also note the request made to NatureScot on how to undertake the non-breeding seasonal apportionment of the impact to SPAs using the BDMPS approach where there is more than one non-breeding season. We would advise that the applicant continues to adhere to such guidance in assessing the likely significant effects of the proposed development.

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Should you wish to discuss of any of the above please do not hesitate to contact me.

Yours sincerely, [Redacted]

Andrew Tait Senior Conservation Planner, RSPB Scotland

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## **RYA Scotland**



# People, Places and Communities

**OPENNESS EXCELLENCE INTEGRITY RESPONSIBILITY** 



admin@ryascotland.org.uk



#### **1 August 2025**

Jennifer Goodheir
Casework Officer
Marine Directorate Licensing Operations Team
Scottish Government
5 Atlantic Quay, 150 Broomielaw
Glasgow
G2 8LU
MD.MarineRenewables@gov.scot

Dear Ms Goodheir,

#### SCOP-0071 - Shetland Offshore Wind Limited - Stoura Offshore Wind Farm

I have read the relevant parts of the scoping report on behalf of RYA Scotland and have already discussed the project with the developers. We would be happy to take part in the Navigational Risk Assessment. I will coordinate our contribution with the Cruising Association. Although rather few recreational vessels normally pass through the area some do, particularly those on passage between Shetland and Norway and *vice versa*. In particular, note should be taken of the annual Bergen-Shetland race (https://www.lerwick-harbour.co.uk/events/shetland-race). The Tall Ships race has also had a leg from Shetland to Norway, for example in 2023.

My answers to the scoping questions posed in 10.2.12 are as follows.

- 1) Do you agree that the guidance proposed is suitable and sufficient? Yes.
- 2) Do you agree that key data sources have been included to inform the Shipping & Navigation Chapter of the EIA? Yes.
- 3) Do you agree that the study area defined for the NRA is suitable and sufficient (noting that the requirements of MGN 654 have been applied in the proposed approach)? Yes.
- 4) Do you agree that the methodology outlined for undertaking the risk assessment is suitable, including on a cumulative level? Yes.





# People, Places and Communities

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- 5) Do you agree that all potential impacts have been identified for shipping and navigation users? No. It is important to consider the risks due to loss of station of buoys associated with the project and malfunction of any associated Aids to Navigation, particularly where the buoys are not marked on charts used for navigation. Experience with other windfarms has shown that this is a not infrequent issue and that it can often take weeks to remedy the situation.
- 6) Do you agree with the suitability of the proposed mitigation measures? Yes but information about the project should be sent to the editor of the Clyde Cruising Club Sailing Directions and Anchorages (sailingdirections@clyde.org) so that an update can be issued to the Orkney and Shetland volume.
- 7) Are there any other issues related to Shipping & Navigation that should be identified for this Project? I note that wet storage may be required. If so, this should be addressed at an early stage.

Yours sincerely,

## [Redacted]

Dr G. Russell FCIEEM(retd) FRMetS

Planning and Environment Officer, RYA Scotland



## SEPA

From: Planning.North < Planning.North@sepa.org.uk>

**Sent:** 11 July 2025 09:01 **To:** MD Marine Renewables

**Subject:** SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – SEPA

response

**Objective:** -1

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SEPA response PCS-20006141

Dear Team

SEPA has no site specific EIA scoping advice to provide on the offshore elements of this project and refers you to our standing advice.

Regards

Susan

#### Susan Haslam Senior Planning Officer

Scottish Environment Protection Agency Buidheann Dìon Àrainneachd na h-Alba

- Graesser House I Fodderty Way I Dingwall I IV15 9XB
- Postal address: Angus Smith Building | Unit 6, 4 Parklands Avenue | Holytown | Motherwell | ML1 4WQ

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SEPA STANDING ADVICE - https://www.sepa.org.uk/media/594487/lups-gu13.pdf

# Scottish Fishermen's Federation (SFF)



Our Ref: OB- Stoura OWF/0025/001

Your Ref: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on Request for Scoping Opinion – Response Required by 07 August 2025

Scottish Fishermen's Federation 24 Rubislaw Terrace Aberdeen, AB10 1XE Scotland UK

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21st August 2025

Jennifer Goodheir
Marine Directorate – Licensing Operations Team
Scottish Government
E-mail: MD.MarineRenewables@gov.scot

<u>SFF Response to SCOP-0071 - Shetland Offshore Wind Limited - Stoura Offshore Wind Farm - Consultation on Request for Scoping Opinion</u>

On behalf of the Scottish Fishermen's Federation (SFF), I write in response to the statutory consultation on the scoping request submitted by Shetland Offshore Wind Limited for the proposed Stoura Offshore Wind Farm. This response is intended to inform the Scoping Opinion to be issued by Scottish Ministers, and to ensure that the subsequent Environmental Impact Assessment (EIA) robustly addresses the potential impacts on commercial fisheries and marine ecosystems.

The SFF represents the 450 plus fishing vessels through its constituent associations, including the Anglo Scottish Fishermen's Association, Fife Fishermen's Association. Fishing Vessel Agents and Owners Association, Mallaig & North West Fishermen's Association, Orkney Fisheries Association, Scottish Pelagic Fishermen's Association, the Scottish White Fish Producer's Association and Shetland Fishermen's Association.

We welcome the developer's early engagement with the fishing industry, including participation in the NE1 Fishing Forum and bilateral meetings with Shetland-based stakeholders. We also acknowledge the structured approach taken in the scoping report to outline the legislative and policy context for the proposed development. The following comments are provided in relation to the treatment of key frameworks in the scoping report.

#### **Legislative and Policy Framework**

We note that Chapter 2 and Appendix A of the scoping report provide a comprehensive overview of the relevant legislative and policy frameworks. The following comments are offered to support the

Members:



robustness of the EIA process and to highlight areas where further clarity or emphasis may be beneficial.

#### Electricity Act 1989 – Schedule 9: Preservation of Fisheries

Schedule 9 of the Electricity Act 1989 imposes a statutory duty on developers to have regard to the preservation of amenity, including the interests of fisheries, when formulating proposals for electricity generation infrastructure. While the scoping report references the requirement for consent under Section 36, it does not explicitly acknowledge the obligations under Schedule 9 which is to have regard to the preservation of amenity. This explicitly includes the interests of fisheries. We recommend that the EIA scoping process explicitly recognises this duty and ensures that the forthcoming EIA includes a clear and proportionate assessment of how the project will address the interests of fisheries.

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

The scoping report references these Acts in relation to marine licensing but does not fully explore their implications for equitable access to marine space. These Acts recognise fishing as a legitimate and established activity. We recommend that the subsequent EIA reflect this by assessing how the proposed development will interact with existing fishing activity and how spatial pressures will be managed to avoid marginalisation of the sector.

#### **Marine Strategy Regulations 2010 (MSFD)**

The scoping report notes the MSFD and the requirement to achieve Good Environmental Status (GES) but does not link this to fisheries-relevant descriptors. We suggest that the EIA to be undertaken explicitly consider Descriptor 3 (commercial fish and shellfish populations) and Descriptor 6 (sea-floor integrity) and assess how the project will avoid compromising GES in relation to these.

#### National Marine Plan (NMP) and Shetland Islands Regional Marine Plan (SIRMP)

The scoping report references the NMP but gives limited attention to the SIRMP, which is particularly relevant given the project's location.

We recommend that the future EIA documentation demonstrate alignment with the SIRMP's objectives, including sustainable marine use and co-existence with fisheries, and incorporate local fisheries data and management priorities.

#### **UK Marine Policy Statement (MPS)**

The scoping report appropriately references the MPS. We encourage the forthcoming EIA to demonstrate how the project aligns with the MPS's objectives for balancing economic, social, and environmental considerations in marine development.

#### **International Instruments UNCLOS and ICESCR**

Although not explicitly referenced in the scoping report, these international instruments underpin many of the domestic obligations. We suggest that the forthcoming EIA phase acknowledges the relevance of UNCLOS Article 61 (conservation of living marine resources) and ICESCR Articles 6, 11, and 15 (livelihoods, standard of living, and cultural rights) in the context of potential impacts on fishing communities.

#### **Comments on Chapter 3: Project Description**



The SFF has reviewed Chapter 3 of the Stoura Offshore Wind Farm Scoping Report and offers the following comments and recommendations in relation to offshore infrastructure, cable installation, and seabed interaction.

#### Floating Substructures and Mooring Systems<sup>1</sup>

The scoping report outlines multiple floating foundation types under consideration, including Spar, Semi-submersible, Tension-Leg Platform (TLP), and Barge. The fishing industry strongly prefers floating substructures that minimise seabed disturbance, reduce navigational hazards, and limit spatial conflict. These preferences are based on operational safety and the need to preserve access to productive fishing grounds.

Given these concerns, the SFF recommends that the Tension-Leg Platform (TLP) be prioritised in the forthcoming EIA due to its smaller seabed footprint and reduced anchor spread. We request a comparative assessment of the spatial and ecological impacts of each foundation type, with specific reference to fisheries displacement and gear interaction risks.

#### Cable Burial Depth and Installation Techniques<sup>2</sup>

The project proposes both dynamic and static inter-array cables, as well as offshore export cables, with burial depths of 1-2 m and up to 3 m respectively. The SFF supports:

- Optimising cable burial depth to reduce snagging risks and minimise the need for external protection.
- Use of jet trenchers and controlled flow excavators in harder sediments to ensure effective burial with minimal seabed disruption.
- Simultaneous cable burial (lay and bury in one operation) to reduce exposure time and risk to fishing gears.

We request that the subsequent assessment documentation assess the feasibility of achieving target burial depths across the cable corridor and provide justification for any areas where external protection may be necessary, including a risk-based rationale.

#### Cable Protection Measures<sup>3</sup>

The scoping report lists rock placement, concrete mattresses, grout bags, and rock bags as potential protection methods. The SFF strongly opposes the use of concrete mattresses and rock bags in open waters due to their significant and long-term snagging risk for bottom trawl fishing vessels and static gears. We recommend rock protection measures considering industry standard rock size (1"- 5") with a 1:3 profile that should be subject to over-trawlability testing/over-trawl sweep and long-term monitoring to ensure safe post-installation access for fishing operations.

#### Cable Crossing Points<sup>4</sup>

The report anticipates up to 15 crossings for export cables and additional crossings for inter-array cables. These pose significant snagging risks. The SFF recommends:

- Avoiding cable crossings wherever possible.
- Consulting with fisheries stakeholders on the design and location of unavoidable crossings.
- Including snagging risk assessments and mitigation strategies.

Where crossings are unavoidable, we recommend that mitigation measures include low-profile protection, clear charting, and engagement with local fishers to identify high-risk zones.

<sup>&</sup>lt;sup>1</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.5.2.6–3.5.2.9

<sup>&</sup>lt;sup>2</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.5.2.16–3.5.2.20 and 3.5.3.18–3.5.3.22

<sup>&</sup>lt;sup>3</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.5.2.20 and 3.5.3.22

Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.5.2.21 and 3.5.3.22



#### Seabed Preparation and Spawning Grounds<sup>5</sup>

The project includes seabed preparation activities such as boulder clearance, dredging, and UXO removal. These can disturb spawning grounds and benthic habitats. The SFF requests:

- Mapping of known spawning grounds and sensitive habitats within the Offshore Scoping Boundary and Export Cable Search Area.
- Sediment resuspension modelling to assess potential smothering of eggs and larvae.
- Mitigation measures to minimise disturbance during peak spawning periods.

#### **Boulder Clearance and Grapnel Runs<sup>6</sup>**

The scoping report confirms that boulder clearance and grapnel runs will be undertaken prior to cable installation and foundation placement. These activities can significantly alter seabed habitats and create new snagging hazards for fishing gear.

- To minimise disruption, we recommend that boulder relocation be avoided unless absolutely necessary. Where relocation occurs, boulders coordinates should be shared in a format compatible with fishing plotters (DD° MM.MMM, WGS 84)
- Post-clearance seabed surveys should be conducted to identify and document any new obstructions, with findings communicated promptly to fisheries stakeholders.
- Grapnel run schedules and locations should be communicated in advance via Notices to Mariners and direct engagement with local fishing representatives.

#### Pre-construction Surveys and Site Investigations<sup>7</sup>

The report documentation outlines a range of pre-construction surveys, including geophysical, geotechnical, UXO, and benthic campaigns. While necessary for project planning, these surveys may overlap with peak fishing seasons and sensitive spawning periods.

- The SFF recommends early engagement with the fishing industry to coordinate survey timing and minimise disruption to fishing operations.
- We recommend that survey scheduling be coordinated with local fisheries representatives to avoid peak fishing seasons and spawning periods. Advance notice should be provided through direct engagement and formal channels such as Notices to Mariners.

#### **UXO Clearance<sup>8</sup>**

UXO clearance is included in seabed preparation activities. The SFF acknowledges the safety imperative but is concerned about the environmental impacts of detonation.

- The SFF recommends that potential UXOs be avoided through re-routing or micro-siting where feasible.
- Where clearance is necessary, deflagration should be prioritised over detonation due to its reduced acoustic footprint.
- If detonation is unavoidable, mitigation measures should include Acoustic Deterrent Devices
  (ADDs), soft-start procedures, and real-time visual and acoustic monitoring to confirm the
  absence of sensitive marine fauna within the impact zone.

Where confirmed UXO (cUXO) is proposed to be relocated, consultation with fisheries stakeholders must be undertaken to ensure that the new location does not intersect with known fishing grounds. This is essential to safeguard against gear interaction and to prevent further spatial exclusion of fishable waters.

<sup>&</sup>lt;sup>5</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.7 and 3.12

<sup>&</sup>lt;sup>6</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.7

<sup>&</sup>lt;sup>7</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.9

<sup>8</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.7



#### Wet Storage of Components 9

The scoping report notes that wet storage of substructures and wind turbine generators (WTGs) may be required to facilitate construction. However, the locations, durations, and anchoring methods for wet storage are currently undefined. While wet storage is increasingly common in floating offshore wind projects, it introduces several concerns for the fishing industry. Wet storage areas may:

- Overlap with inshore or nearshore fishing grounds, particularly those used by static gear operators;
- Create temporary exclusion zones that disrupt seasonal fisheries operations;
- Pose navigational and snagging risks due to semi-submerged or moored structures;
- Add to cumulative spatial pressures already affecting the fishing sector.

Although wet storage is not yet fully regulated, it is considered a licensable marine activity under the Marine (Scotland) Act 2010 and may require a separate marine licence depending on its scale and location. The Scottish Government's Marine Directorate has issued draft guidance and held stakeholder workshops to clarify expectations. We therefore request that the developer clarify whether a separate marine licence will be sought for wet storage and ensure that wet storage avoids prolific fishing grounds and its potential impacts are addressed as part of the environmental assessment process.

Given the importance of inshore fishing grounds to Shetland's static gear fleet, we emphasise that any proposed wet storage areas must be developed in close consultation with local fishers. This is essential to avoid impeding access to productive grounds and to ensure that spatial planning reflects the operational realities of the inshore fleet. The fishing industry must be treated as a key stakeholder in determining suitable locations and timings for wet storage activities.

We recommend that the scoping opinion explicitly require assessment of wet storage impacts, including spatial overlap with fishing grounds, navigational safety, and cumulative pressures. Wet storage zones should be charted and communicated in advance to affected stakeholders.

#### Decommissioning and Seabed Restoration<sup>10</sup>

The scoping report states that decommissioning will follow a reverse construction sequence, but that "anchors are unlikely to be removed; this will depend on the final design solution adopted." While this may be permitted under current UK guidance, the SFF strongly opposes the retention of any infrastructure on the seabed post-decommissioning. The long-term presence of anchors and mooring components poses unacceptable risks to fishing operations and undermines seabed integrity.

Leaving anchors in place can:

- Create permanent snagging hazards for mobile and static fishing gear (if exposed);
- Restrict access to traditional fishing grounds;
- Increase insurance and operational risks for fishers.

To reiterate fishing vessels safety concerns, SFF want all development related infrastructures to be recovered/removed to shore followed by over-trawl sweeps (seabed sweeps using fishing gears). The SFF urges Scottish Ministers to require full seabed restoration and to reject any decommissioning proposals that fall short of complete infrastructure removal and post-removal verification through over-trawl sweeps.

The scoping report also references the development of a Decommissioning Programme (DP) and adherence to relevant guidance, including Marine Scotland's 2022 guidance notes for offshore

<sup>&</sup>lt;sup>9</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.8

<sup>&</sup>lt;sup>10</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 3.2.1.3



renewable energy installations. However, the potential impacts on fisheries are not explicitly addressed. We therefore recommend that the scoping opinion reflect the need for:

- Justification of any proposal to leave anchors and mooring components;
- Assessment of long-term risks to fishing operations and other marine users;
- Inclusion of fisheries stakeholder consultation in decommissioning planning;
- We recommend a commitment to full removal of infrastructure wherever feasible. Where components (buried anchors and mooring lines ends) must remain in situ, mitigation should include burial, charting, and notification to the fishing industry, along with a long-term monitoring plan to assess ongoing risks;
- Restoration of the seabed, as far as practicable, to its pre-construction condition to support the long-term sustainability of marine industries, including fishing.

#### **Comments on Chapter 4: EIA Methodology**

The SFF has reviewed Chapter 4 of the scoping report and acknowledges that the proposed EIA methodology broadly aligns with established guidance, including IEMA (2017), RenewableUK (2013), and Marine Scotland's licensing framework. However, we offer the following comments to ensure that the methodology is appropriately tailored to assess potential impacts on commercial fisheries and marine users.

#### **Fisheries-Specific Sensitivity and Impact Criteria**

While the report outlines a matrix-based approach to assessing significance<sup>11</sup>, it does not define how fisheries receptors such as gear types, seasonal effort, or socio-economic dependence will be evaluated.

We recommend that the assessment include fisheries-specific sensitivity criteria that reflect gear type vulnerability, seasonal effort intensity, and socio-economic dependence on affected grounds. This will ensure that the significance of impacts is not underestimated.

#### **Fisheries Baseline Data and Local Knowledge**

The baseline assessment should incorporate fisheries-specific data, including seasonal fishing effort, gear deployment patterns, and vessel transit routes. Integration of local fisheries knowledge is essential to accurately characterise fishing activity within the Offshore Scoping Boundary and Export Cable Search Area.

#### **Residual Risk Assessment**

The report assumes that designed-in measures<sup>12</sup> eliminate the need to assess certain impacts. While this reflects standard practice, the effectiveness of these measures in mitigating fisheries impacts such as displacement, gear conflict, and navigational safety should not be presumed.

We request that residual risks to fisheries be assessed even where designed-in measures are proposed, and that the effectiveness of such measures be validated through stakeholder consultation and, where appropriate, post-construction monitoring.

#### Cumulative Effects Assessment (CEA)

The methodology for cumulative effects<sup>13</sup> is consistent with current guidance, but the scope and thresholds for inclusion are not clearly defined for fisheries. We recommend that the cumulative assessment explicitly consider:

<sup>&</sup>lt;sup>11</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 4.5

<sup>&</sup>lt;sup>12</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 4.4.5

<sup>&</sup>lt;sup>13</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 4.7



- All relevant offshore wind developments in the NE1 Plan Option Area;
- Export cable corridors, wet storage zones, and anchor fields;
- Displacement modelling and socio-economic impacts on fleet viability;
- Aggregated spatial pressures across multiple developments.

The cumulative effects methodology should also assess spatial and temporal overlap with fishing activity, including displacement, gear conflict, and socio-economic pressures. This is particularly important given the proximity of other offshore wind developments within the NE1 Plan Option Area.

#### **Assessment of Significance and Data Transparency**

The matrix-based approach to assessing significance should be supported by fisheries-specific thresholds developed in consultation with the fishing industry. These should reflect both ecological and operational impacts, including access restrictions and gear damage risk.

The scoping report acknowledges data gaps in several chapters (e.g., Sections 8.1.11, 9.1.11, 10.1.4), but does not outline how these will be addressed or shared. The SFF recommends that the developer commits to transparent methodologies and provide access to relevant fisheries datasets used in the assessment.

#### **Uncertainty and Adaptive Management**

Section 4.6 acknowledges uncertainty but does not commit to fisheries-specific monitoring or adaptive management. We recommend that the assessment process include:

- Post-construction routine monitorings of fisheries impacts (based on the newly Scottish Government Best Practice Guidance on 'Monitoring the impacts on the commercial fishing industry'<sup>14</sup>);
- Adaptive management measures if impacts exceed predictions;
- A mechanism for ongoing engagement with fisheries stakeholders throughout the project lifecycle.

#### Comments on Chapter 6: Site Selection and Consideration of Reasonable Alternatives

The SFF has reviewed Chapter 6 of the scoping report and notes that the site selection process for the Stoura Offshore Wind Farm was informed by a constraints-based analysis of environmental, technical, and human factors. However, we offer the following comments to ensure that the interests of the fishing sector are appropriately considered in the refinement of project boundaries and infrastructure siting.

#### **Consideration of Fishing Grounds as Constraints**

While the report refers to "human factors" <sup>15</sup> in the site selection process, it does not explicitly identify commercial fisheries as spatial constraints. Given the economic and cultural importance of fishing in Shetland waters, and the presence of high-value fisheries within the Offshore Scoping Boundary, this omission is concerning and needs to be addressed.

We recommend that the forthcoming EIA demonstrate how fishing activity was considered in the definition of the Stoura Array Area and Export Cable Search Area.

Spatial overlap with ICES rectangles, static gear zones, and aquaculture sites should be treated as key constraints in the refinement of the Export Cable Corridor and landfall location.

<sup>&</sup>lt;sup>14</sup> https://www.gov.scot/publications/monitoring-offshore-windfarm-impacts-commercial-fishing-industry-good-practice-guidance/

<sup>&</sup>lt;sup>15</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 6.4.1.1



#### **Cumulative Spatial Pressures**

The chapter does not assess how the Stoura site interacts with other offshore wind developments in the NE1 Plan Option Area. As multiple projects progress toward consent and construction, the cumulative spatial footprint of offshore infrastructure—including array areas, cable corridors, anchor fields, and wet storage zones—may significantly affect fisheries access and viability.

We request that the subsequent EIA include a cumulative spatial impact assessment that considers aggregated pressures on fishing grounds and transit routes.

The rationale for site selection should be revisited in light of cumulative displacement risks and the need to maintain viable fishing operations across the region.

#### Offshore Biological Environment – Key Issues and Recommendations

#### 1. Fish and Shellfish Ecology – Spawning Grounds

While the Scoping Report defines a precautionary Fish and Shellfish Ecology Study Area (Offshore Scoping Boundary plus 100 km buffer), it lacks a clear commitment to assess impacts on known spawning and nursery habitats. These areas are critical for the sustainability of commercial fish stocks.

#### Recommendation:

The EIA should include detailed mapping and assessment of seabed spawning and nursery grounds for key commercial species such as herring, sandeel, and cod. The assessment should evaluate potential risks from sediment disturbance, cable installation, and other construction activities.

#### 2. Data Gaps and Survey Commitments

The report notes that site-specific surveys (e.g., geophysical, benthic, particle size analysis) are planned but not yet completed. However, it provides limited detail on how these data will be used to verify habitat sensitivity or inform mitigation measures relevant to fisheries.

#### Recommendation:

The EIA should clearly describe how site-specific survey data will be used to assess the sensitivity of fisheries-relevant ecological features. It should also explain how these data will inform the development of impact thresholds and mitigation strategies.

#### 3. Underwater Noise – Fish Impacts

Although underwater noise is addressed in Chapter 8.2, Chapter 9.2 does not adequately consider how noise may affect fish behaviour, spawning activity, or catchability—particularly for species of commercial importance.

#### Recommendation:

The EIA should assess the potential impacts of underwater noise on fish species, including behavioural changes, displacement, and spawning disruption. This assessment should be species-specific and consider both construction and operational phases.

#### Inclusion of <15m Vessel Data

We appreciate the developer's engagement to date and the inclusion of commercial fisheries as a key receptor. The current baseline assessment relies heavily on VMS data, which excludes vessels under 15 metres. These vessels represent a significant proportion of the inshore fleet operating in Shetland and surrounding waters. To ensure a robust and representative assessment of fishing activity, we recommend:



- Inclusion of Shetland Shellfish Management Organisation (SSMO) 5-square-mile resolution data, local logbooks, and hygiene certificate location data.
- Engagement with Shetland Fishermen's Association (SFA) and Shetland Shellfish Management Organisation (SSMO) to access relevant datasets.
- Consideration of potting, trapping, and line fishing effort, which is not captured by VMS or AIS.

#### **Comments on Chapter 5 Consultation Process**

The SFF notes with concern that the fishing industry was not included among the consultees listed under "Shipping & Navigation" in the General Scoping Workshop held on 6th May 2025<sup>16</sup>. Given the operational reliance of fishing vessels on safe navigation and access to marine space, particularly in Shetland waters, it is essential that the fishing sector be recognised as a primary stakeholder in this topic area. We request that future consultations explicitly include fishing representatives in discussions related to marine navigation, spatial planning, and risk assessment to ensure that the interests of both mobile and static gear operators are adequately considered.

#### **Comments on Chapter 6 Site Selection and Consideration of Reasonable Alternatives**

The SFF notes that the scoping report states that fishing activity was considered as part of the constraints assessment prior to the Applicant's bid for the NE1 site<sup>17</sup>. However, the selection of a location with demonstrably high levels of fishing effort particularly by the Shetland fleet raises serious concerns about the weight given to fisheries data in the site selection process. This suggests that fishing activity was acknowledged but not treated as a limiting constraint. We request that the forthcoming EIA provide a transparent account of how fisheries data influenced site selection decisions and demonstrate how the project will mitigate the impacts of spatial overlap with active fishing grounds.

#### Comments on Chapter 10 Offshore Human and Socio-Economic Environment

The SFF notes that Table 10.1 <sup>18</sup> of the scoping report lists seven datasets used to inform the fisheries baseline, yet only two extend beyond 2021. This reliance on a narrow five-year window and limited recent data raises concerns about the robustness of the baseline assessment. Fishing activity in Shetland waters is dynamic and has been subject to significant changes in recent years due to regulatory shifts, market pressures, and spatial competition. We recommend that the developer incorporate more recent and locally sourced datasets, including hygiene certificate location data, SSMO 5-mile grid data, and logbooks from the <15m fleet, and plotter data which offers granular spatial insights into actual fishing effort and gear deployment, which are critical for accurately reflecting current fishing activity and spatial use.

The SFF recommends that the developer consider incorporating the Horizon Watch bulletin into its fisheries liaison and mitigation strategy. Horizon Watch is a proposed alert system designed to provide fishermen with early and accessible information on subsea cable routes and offshore infrastructure. Its inclusion would complement existing measures such as Notices to Mariners and Kingfisher Bulletins by offering regular updates, interactive engagement, and collaboration with authorities. This would enhance situational awareness, reduce gear conflict risks, and support co-

<sup>&</sup>lt;sup>16</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 5 Table 5.2: Summary of General Scoping Workshop Comments p62

<sup>&</sup>lt;sup>17</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 6 Section 6.2.1.2

<sup>&</sup>lt;sup>18</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 10 Section 10.1.3 Data Sources Table 10.1: Summary of key data sources p298



existence between offshore developments and fishing operations. We propose that Horizon Watch be trialled during the pre-construction phase and integrated into the Fisheries Mitigation Monitoring and Communication Plan (FMMCP).

The SFF notes that Section 10.2.4.15 of the scoping report states that no charted wrecks or obstructions are present within the Shipping and Navigation Study Area, aside from one located 5.3nm south-east of the Stoura Array Area. However, this overlooks the wreck of the fishing vessel Opportune, which lies within the study area, specifically within the Arven North region. This wreck is of relevance both as a navigational consideration and as a site of cultural significance to the fishing community. We request that the wreck of FV Opportune be explicitly acknowledged in the EIA and assessed for its implications on navigation, seabed interaction, and intangible heritage.

The SFF notes that the AIS vessel traffic data presented in Section 10.2.4.16 of the scoping report covers only two short periods: 18–31 January and 01–14 July 2024. These windows do not capture the full seasonal variability of marine traffic, particularly the high levels of pelagic fishing activity observed in October and November. This seasonal peak involves significant effort from both UK and EU vessels and is critical to understanding spatial pressures and navigational risks in the area. We recommend that the EIA incorporate vessel traffic data from these peak fishing months to ensure a more representative and robust assessment of marine user interactions.

The SFF notes that Sections 10.6.5.10 to 10.6.5.12 of the scoping report clearly demonstrate the socio-economic significance of the fishing and aquaculture sector in Shetland, accounting for 9% of total employment and 18.8% of all businesses in 2024. These figures underscore the central role of fisheries in sustaining livelihoods, local economies, and community identity. Given this context, it is imperative that the EIA fully reflects the potential socio-economic impacts of the proposed development on the fishing sector, including displacement, loss of earnings, and long-term viability. Mitigation and compensation measures must be proportionate to the scale of potential disruption and developed in close consultation with affected stakeholders.

The SFF welcomes the acknowledgement in Table 10.22<sup>19</sup> that commercial fisheries operators from outside Shetland may be affected and should be considered at the EIA stage. This is a critical point, as the waters around the Stoura Array Area are fished by a wide demographic of vessels, including those based in mainland Scotland, Northern Ireland, and Shetland. For example, the mackerel fishery alone involves at least 13 vessels from the Scottish mainland, 3 from Northern Ireland, and 8 from Shetland. We strongly recommend that the EIA process includes direct engagement with all relevant fleet segments and producer organisations to ensure that the full extent of socio-economic impacts is captured and addressed.

The SFF notes that the Designed-in Mitigation Commitments Register (ID0020)<sup>20</sup> does not include commercial fisheries in the notification process for dropped objects. Any object lost or deposited on the seabed during construction or operation must be reported immediately to fisheries representatives and accompanied by a Kingfisher Bulletin. This notification should include full details of the object's size, weight, location (in decimal minutes, WGS84), and the steps being taken for recovery. If recovery is expected to be delayed, a Guard Vessel (GV) should be deployed to alert

<sup>20</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Appendix B: Designed-in Mitigation Commitments Register Section B.1.1.3 Table B. 1: The Offshore Project's Designed-in Mitigation Commitments Register Reference ID0020 p485

<sup>&</sup>lt;sup>19</sup> Stoura Offshore Wind Farm Offshore Scoping Report Date: June 2025 Chapter 10 Section 10.6.6.2 Table 10.22: Impacts proposed to be scoped into the socio-economics assessment p399



fishers operating in the area and ensure navigational safety until the object is removed. This protocol is essential to prevent gear damage, ensure safe access, and uphold co-existence principles.

#### The SFF Response to Scoping Questions for Consultees Chapter 8 Offshore Physical Environment 8.1.12 Scoping Questions to Consultees

- do you agree with the spatial extent of the Study Area and rationale used to define it? SFF's repones: We broadly agree with the spatial extent and rationale, but recommend that the study area be reviewed in light of cumulative spatial pressures from other NE1 projects and fishing grounds.
- are we missing any key data sources to inform the Physical and Coastal Processes Chapter of the EIA?
- do you agree with the impacts scoped into and out of the EIA?
- do you agree with the proposed assessment methodology, in particular? the proposed approach to assessing potential changes to stratification and frontal systems;
- the use of spreadsheet-based modelling to assess sediment disturbance activities;
- the use of quantitative or semi-quantitative techniques to assess the potential for wave blockage effects.
- do you agree with the suitability of the proposed mitigation measures?
- are there any other issues related to Physical Processes that should be identified for this Project? Data Sources: Additional sources such as SSMO seabed habitat maps, local hydrographic surveys, and sediment transport studies from nearby developments should be considered. Scoped Impacts: We agree with the impacts scoped in, but recommend that seabed disturbance and sediment resuspension be assessed in relation to spawning grounds and benthic habitats. Methodology:
  - Stratification and frontal systems: We support the proposed approach but recommend validation using multi-year datasets and consultation with MSS.
  - Spreadsheet-based sediment modelling: Acceptable if supported by site-specific calibration.
  - Wave blockage: Semi-quantitative techniques are suitable, but cumulative effects should be modelled.

Mitigation Measures: We support the proposed measures but request inclusion of fisheries-specific protocols for seabed restoration and obstruction reporting.

Other Issues: The potential for sediment plume interaction with aquaculture sites and spawning grounds should be assessed.

#### **8.2.11 Scoping Questions to Consultees**

- do you have a preference for the Southall *et al.*, 2019 weightings and thresholds over those presented in NMFS 2024, or vice versa?
- do you agree with the noise sources and activities covered by the assessment?
- do you agree with the proposed methodology to determine source levels for piling?
- do you agree with the noise modelling methodology?
- do you agree with the proposed swim speeds?
- do you agree that all potential impacts have been identified for Underwater Noise?
- do you agree with the suitability of the proposed mitigation measures?
- are there any other issues related to Underwater Noise that should be identified for this Project?



Thresholds: We prefer the Southall et al. (2019) framework for its species-specific detail and broader acceptance in UK waters.

Noise Sources: We agree with the sources listed but recommend inclusion of wet storage operations and grapnel runs.

Piling Source Levels: The proposed methodology is acceptable, but should be validated with site-specific data and include floating foundation anchoring.

Noise Modelling: We support the approach but recommend sensitivity testing and inclusion of cumulative noise from nearby projects.

Swim Speeds: We agree, assuming they reflect species-specific behaviour and are validated with recent literature.

Identified Impacts: We recommend inclusion of impacts on fish spawning behaviour and catchability, especially for pelagic and demersal species.

Mitigation Measures: Suitable, but should include seasonal restrictions, ADDs, and real-time monitoring.

Other Issues: The potential for acoustic masking and behavioural displacement of fish should be considered.

#### **8.3.12 Scoping Questions to Consultees**

- do you agree that the study area is appropriately defined?
- do you agree with the data sources as detailed to inform the baseline environment in relation to the Offshore Project? Are there any additional anticipated data sources which we should consider?
- do you agree with the impacts proposed to be scoped out? To ensure a proportionate EIA, are there any additional impact pathways that could be scoped out?
- do you agree that any impacts assessed as negligible for the project alone can be scoped out of the CEA?
- are there any other issues related to water and sediment quality that should be identified for the Offshore Project?

Study Area: We agree with the defined area.

Data Sources: Additional sources such as SSMO water quality monitoring and aquaculture site data should be considered.

Scoped-Out Impacts: We agree with the exclusions, provided sediment disturbance and contaminant mobilisation are fully assessed.

CEA Scope: Impacts assessed as negligible should only be scoped out if validated by site-specific data

Other Issues: The potential for sediment disturbance to affect shellfish beds and aquaculture operations should be assessed.

#### 8.4.12 Scoping Questions to Consultees

- do you agree that key data sources have been included to inform the Climate Effects Chapter of the EIA?
- do you agree that the study area defined for Climate Effects is suitable and sufficient?
- do you agree that the methodology outlined for undertaking the assessment is suitable, including on a cumulative level?
- do you agree that all potential impacts have been identified for Climate Effects?
- do you agree with the suitability of the proposed mitigation measures?
- are there any other issues related to Climate Effects that should be identified for this Project? Data Sources: We agree with the sources listed.

Study Area: Suitable, though consideration should be given to climate-driven changes in fish distribution and productivity.



Methodology: Acceptable, but cumulative effects on fisheries viability should be included.

Identified Impacts: We recommend inclusion of indirect impacts on fisheries, such as changes in stratification and primary productivity.

Mitigation Measures: Suitable, but should include adaptive management strategies for fisheries displacement.

Other Issues: The interaction between climate effects and spatial exclusion from offshore wind infrastructure should be considered.

#### **Chapter 9 Offshore Biological Environment**

#### 9.1.12 Scoping Questions to Consultees

- do you agree the study areas (Local and Regional) are appropriately defined?
- do you agree with the data sources as detailed to inform the baseline environment in relation to the Offshore Project? Are there any additional anticipated data sources which we should consider?
- do you agree with the potential impacts proposed to be scoped in?
- do you agree with the impacts proposed to be scoped out? To ensure a proportionate EIA, are there any additional impact pathways that could be scoped out?
- do you agree with the proposed methodology for the benthic ecology assessment of defining the sensitivity of benthic ecology receptors from the MarESA and FeAST tools where possible?
- do you agree that any impacts assessed as negligible for the project alone can be scoped out of the CEA?
- are there any other issues related to Benthic Ecology that should be identified for the Offshore Project?

Study Areas: We agree with the Local and Regional study areas but recommend that they be reviewed in light of known fishing grounds and sensitive benthic habitats, particularly those used by static gear fleets.

Data Sources: We recommend inclusion of SSMO seabed habitat maps, local benthic survey data, and fisheries stakeholder knowledge to supplement desktop sources.

Scoped-In Impacts: We agree with the proposed impacts but request that snagging risk and habitat fragmentation be explicitly assessed.

Scoped-Out Impacts: We agree with exclusions where justified by data, but recommend caution in scoping out sediment disturbance impacts near spawning grounds.

Methodology: The use of MarESA and FeAST tools is appropriate, but should be supplemented with site-specific sensitivity assessments and stakeholder input.

CEA Scope: Negligible impacts may be scoped out of CEA if supported by robust evidence and stakeholder agreement.

Other Issues: The potential for long-term habitat alteration due to cable protection and anchor fields should be assessed.

#### **9.2.11 Scoping Questions to Consultees**

- do you agree that the study area is appropriately defined?
- do you agree that the existing data available to describe the fish and shellfish ecology baseline remains sufficient to describe the baseline environment in relation to the Offshore Project?
- are there any additional desktop datasets which should be considered?
- do you agree with the potential impacts proposed to be scoped in?

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• do you agree with the impacts proposed to be scoped out? To ensure a proportionate EIA, are there any additional impact pathways that could be scoped out?



- do you agree with the proposed methodology for the fish and shellfish ecology assessment of defining the sensitivity of fish and shellfish ecology receptors from the MarESA and FeAST tools where possible?
- do you agree that any impacts assessed as negligible for the project alone can be scoped out of the CEA?
- do you agree that the designed-in measures described provides suitable means for managing and mitigating the potential effects of the Offshore Project on fish and shellfish receptors?
- are there any other issues related to fish and shellfish that should be identified for the Offshore Project?

Study Area: We agree with the defined area but recommend that spawning and nursery grounds be mapped in detail and considered in seasonal impact modelling.

Baseline Data: Existing data is useful but should be supplemented with SSMO catch records, hygiene certificate locations, and local logbooks.

Additional Datasets: Consider inclusion of ICES spawning maps, MSS survey data

Scoped-In Impacts: We agree with the proposed impacts, especially sediment disturbance and underwater noise, but recommend inclusion of behavioural changes and catchability effects.

Scoped-Out Impacts: Acceptable if supported by evidence, but spawning disruption should not be scoped out prematurely.

Methodology: MarESA and FeAST tools are suitable, but should be complemented with species-specific ecological modelling and stakeholder validation.

CEA Scope: Negligible impacts may be excluded if cumulative pressures are demonstrably low. Mitigation Measures: Designed-in measures are a good starting point, but seasonal restrictions and adaptive management should be considered.

Other Issues: The interaction between cable installation and Nephrops burrows, and EMF effects on shellfish, should be assessed.

As the project areas are suitable for herring spawning, the SFF are concerned of the Development impacts on all commercial value fish species in the area, especially the Development impacts on the herring which are also particularly sensitive to noise impacts as they have swim bladders which are involved in hearing (Popper et al., 2014).

We are of view that any activities on herring spawning habitat are prohibited based on the annual 'ICES Advice on fishing opportunities, catch, and effort Greater North Sea ecoregion', the most recent publication is dated 30 April 2025. Therefore, SFF propose the above-mentioned ICES advice to be taken into account and acted upon at determination stage<sup>21</sup>.

# Chapter 10 Offshore Human and Socio-Economic Environment 10.1.12 Scoping Questions

The following questions will be posed to relevant commercial fishery stakeholders and consultees to facilitate the collection of responses to this scoping exercise:

- •does the identified Commercial Fisheries Study Area encompass an appropriate area?
- •are there any additional desktop data sources that should be used to inform the baseline environment in the EIAR?
- •do you agree with the impact pathways that have been scoped in and out?

<sup>&</sup>lt;sup>21</sup> The ICES advice on Greater North Sea herring: https://ices-

 $library.figshare.com/articles/report/Herring\_i\_Clupea\_harengus\_i\_in\_Subarea\_4\_and\_divisions\_3\_a\_and\_7\_d\_autum n\_spawners\_North\_Sea\_Skagerrak\_and\_Kattegat\_eastern\_English\_Channel\_/25019285?backTo=%2Fcollections%2FlCES\_Advice\_2024%2F6976944&file=46738075$ 



•do you agree with the proposed designed in measures and mitigation, and that they sufficiently cover/mitigate for potential effects on commercial fisheries receptors?

**SFF's response:** SFF has the following comments on the proposed embedded mitigation:

- As part of the proposed commitments, there is no measure for disruption payments for the fishing vessels. No mention has been made to mitigation once operational and loss of fishing opportunities to the fishing industry considering the floating nature of the proposed array areas. SFF suggest that the cooperation agreement should be considered for both the static and mobile gears where they are required to be temporarily relocated. Long term compensation mechanism should be put in place for those fishermen who are excluded from fishing within the array areas or ECC.
- The Fisheries Mitigation Monitoring and Communication Plan (FMMCP) should be developed in close consultation with fishing industry.
- Utilise the services of an O.F.L.O with sufficient knowledge of fisheries and fishers that utilise the development area.
- We suggest the NtM are issued in sufficient time to avoid any disruptions to the fishing activities in the intended area. Fishermen require geographical readings to decimal of a minute format (3 decimal places sufficient) rather than going down to actual seconds and the datum should be WGS84 rather than ED50.
- Any objects dropped on the seabed during works associated with the Offshore Proposed Development should be reported and objects should be recovered as they pose a hazard to other marine users. We propose also to add the 'dropped object' to Kingfisher Bulletin App if a potential hazard may exist to fishers.
- are the approaches to the cumulative impact assessment, inter-related effects assessment, and transboundary impacts assessment agreeable?
- are there any other matters to be discussed?

Study Area: We agree with the defined Commercial Fisheries Study Area, but recommend that it be reviewed to ensure full coverage of inshore static gear grounds and seasonal fisheries.

Additional Data Sources: We recommend inclusion of FiSMaDiM, SSMO 5-mile grid data, hygiene certificate locations, local logbooks, and aquaculture lease maps.

Scoped Impacts: We agree with the scoped-in pathways, including displacement and gear conflict. However, snagging risk and socio-economic effects should be more explicitly addressed.

CEA, Inter-related, Transboundary: We agree with the proposed approaches, provided cumulative spatial pressures and fleet viability are assessed across NE1 developments.

Other Matters: The potential for long-term exclusion from fishing grounds due to anchors, cable protection, and wet storage should be assessed.

#### **10.2.12 Scoping Questions to Consultees**

- do you agree that the guidance proposed is suitable and sufficient?
- do you agree that key data sources have been included to inform the Shipping & Navigation Chapter of the EIA?
- do you agree that the study area defined for the NRA is suitable and sufficient (noting that the requirements of MGN 654 have been applied in the proposed approach)?
- do you agree that the methodology outlined for undertaking the risk assessment is suitable, including on a cumulative level?
- do you agree that all potential impacts have been identified for shipping and navigation users?
- do you agree with the suitability of the proposed mitigation measures?



 are there any other issues related to Shipping & Navigation that should be identified for this Project?

Guidance: We agree that MGN 654 is appropriate.

Data Sources: AIS data is useful, but we recommend inclusion of VMS and local vessel tracking for <15m vessels.

Study Area: Suitable, assuming it includes key fishing transit routes and seasonal patterns.

Methodology: Acceptable, but should include snagging risk modelling and consultation with fishing stakeholders.

Impacts: We agree, but recommend inclusion of risks to static gear deployment and navigational safety during construction.

Mitigation Measures: Suitable, but should include real-time notification systems and charting of exclusion zones.

Other Issues: The interaction between fishing vessels and construction traffic should be assessed.

#### **10.6.13 Scoping Questions for Consultees**

- do you agree with the impacts identified?
- do you agree with the study areas identified for each impact pathway?
- are there any particular data sources that should be considered?
- do you agree with the impacts to be scoped into the assessment? Are there any others you would recommend including?
- do you agree with the impacts to be scoped out of the assessment? Are there any others you would recommend excluding?
- do you agree with the identified approach to scenario assessment?
- do you agree with the proposed assessment methodology for each impact pathway?
- do you agree with the designed in mitigation measures identified? Are there any other measure you would consider relevant?
- are there any other issues related to socio-economics that should be identified for this Project? Impacts: We agree, but recommend inclusion of fisheries displacement, loss of earnings, and market disruption.

Study Areas: Suitable.

Data Sources: Recommend inclusion of MMO landings, SSMO catch data, and local economic reports.

Scoped-In Impacts: Agree, but recommend inclusion of cumulative socio-economic pressures.

Scoped-Out Impacts: Acceptable if justified.

Scenario Assessment: Agree.

Methodology: Suitable, but should include stakeholder consultation and sensitivity testing.

Mitigation Measures: Suitable, but compensation mechanisms should be considered.

Other Issues: The viability of fishing communities under cumulative offshore development pressure should be assessed.

#### **10.7.12 Scoping Questions to Consultees**

10.7.12.1 The following questions are posed to the Planning Authority and Consultees to help them frame and focus their response to the Seascape, Landscape and Visual Impact Assessment scoping exercise, which in turn will inform the Scoping Opinion:

- do you agree with the Study Area defined for the Seascape, Landscape and Visual Impact Assessment?
- do you agree with the key data sources identified to inform the SLVIA Chapter of the EIAR?
- do you agree with the scope set out for the Seascape, Landscape and Visual Impact Assessment?



- do you agree with the elements of the Offshore Project to be scoped out of the SLVIA Chapter of the EIAR?
- do you agree with the range and locations of proposed viewpoints?
- are there any other issues relating to SLVIA that should be identified for the Offshore Project?

Study Area: Agree.
Data Sources: Agree.

Scope: Agree.

Scoped-Out Elements: Acceptable.

Viewpoints: Agree.

Other Issues: No additional comments from a fisheries perspective.

#### 10.9.10 Scoping Questions

do you agree that the guidance proposed is suitable and sufficient?

- do you agree that the methodology outlined for undertaking the risk assessment is suitable, including on a cumulative level?
- do you agree that all potential hazards have been identified for major accidents and disasters?
- do you agree with the suitability of the proposed mitigation measures?
- are there any other issues related to major accidents and disasters that should be identified for this Project?

Guidance: Suitable.

Methodology: Acceptable.

Hazards: We recommend inclusion of gear snagging and vessel collision risks.

Mitigation Measures: Suitable.

Other Issues: Emergency response protocols for fishing vessels should be considered.

## **Chapter 11 Summary and Structure of the EIAR**

#### 11.3 Scoping Questions to Consultees

- do you agree with the proposed structure of the Offshore EIAR?
- are there any topics you feel should also be scoped into the Offshore EIAR that are not listed above?

Structure: We agree with the proposed structure.

Additional Topics: We recommend that fisheries-specific socio-economic impacts and co-existence planning be explicitly scoped into the EIAR.

#### The SFF Response to the Stoura Offshore Wind Farm HRA Screening Report

The SFF welcomes the opportunity to comment on the HRA Screening Report submitted for the proposed Stoura Offshore Wind Farm. We acknowledge the structured and precautionary approach taken to assess Likely Significant Effects (LSE), as outlined in Section 1.3.1.2 (page 4) and Section 5.2.3 (page 85) of the report. The use of precautionary buffers and screening criteria is noted and appreciated. However, we wish to highlight several areas of concern and recommend further consideration to ensure that the interests of the fishing industry are fully addressed.

For and on behalf of the Scottish Fishermen's Federation.

#### **Omission of Commercial Fisheries as a Receptor**

The report does not explicitly consider commercial fisheries as a receptor. While the focus is on ecological features (e.g., Annex I habitats, marine mammals, birds), indirect and cumulative impacts on fisheries—such as habitat alteration, prey displacement, and spatial exclusion—are not assessed.



**Recommendation**: Commercial fisheries should be included in the Stage 2 Appropriate Assessment (RIAA), with attention to:

- Spatial displacement from fishing grounds
- Gear interaction risks (e.g., moorings, cables, scour protection)
- Cumulative effects with other NE1 offshore wind projects

#### **UXO Clearance and Acoustic Disturbance**

UXO clearance is identified as a source of impulsive noise with potential LSE for marine mammals. These activities may also affect fish behaviour and availability, with knock-on effects for fisheries.

#### **Recommendation:**

- Prioritise deflagration over detonation
- Implement mitigation measures such as ADDs, soft-start procedures, and real-time monitoring
- Notify fishery stakeholders in advance of clearance operations

# **Wet Storage Uncertainty**

Wet storage is mentioned but lacks clarity on location, duration, and licensing. This introduces uncertainty for spatial planning and fisheries access.

#### Recommendation:

- Confirm whether a separate marine licence will be sought
- Assess wet storage impacts on static gear fisheries and aquaculture
- Include wet storage in the cumulative spatial impact assessment

#### **Sediment Contaminant Risk**

The report acknowledges that sediment chemistry data is not yet available. There is potential for remobilisation of contaminants during cable installation and seabed preparation.

#### Recommendation:

- · Conduct site-specific sediment sampling
- Include radiological risk assessment if legacy contamination is suspected
- Consult fisheries stakeholders on cable routing and landfall decisions

#### **Cumulative Effects Framework**

While cumulative effects are referenced, the report lacks detail on how other NE1 projects will be considered in combination.

#### Recommendation:

- Develop a clear cumulative impact framework
- Include spatial overlap, ecological pressures, and socio-economic impacts on fisheries
- Model fisheries-specific worst-case scenarios

The SFF supports progression to Stage 2 Appropriate Assessment but strongly recommends that:

- Commercial fisheries be included as a receptor
- Fisheries-specific concerns be addressed through targeted mitigation and engagement
- The RIAA be developed in close consultation with the fishing industry

We urge the Scottish Government and Shetland Offshore Wind Limited to ensure that the EIA process is inclusive, transparent, and responsive to the concerns of marine users. The fishing industry must be treated as a legitimate stakeholder, with its operational needs and socio-economic contributions fully recognised throughout the project lifecycle. The fishing industry strongly opposes any nature compensation measures that could negatively impact commercial fisheries.



## Conclusion

In conclusion, SFF stresses that our primary concern is protecting the rights of fishermen to safely undertake their trade, and this is the cornerstone of our response. Our position is that fishing activities should continue unaffected and unharmed post-development. If fishermen impacted are to be denied the right to earn their living, we could not support the development of any proposal for a windfarm.

For and on behalf of the Scottish Fishermen's Federation

# [Redacted]

Oliwia Biros
Offshore Consents Assessments Manager
Scottish Fishermen's Federation

# Shetland Islands Council (SIC)



# **Shetland Islands Council**

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Coastal Zone Manager

[Redacted]

Direct Dial: 01595 744805

Date: 22 August 2025

Dear Sir/Madam

SCOPING OPINION REQUEST FOR THE PROPOSED STOURA OFFSHORE WIND FARM, APPROXIMATELY 52KM EAST OF SHETLAND (SIC Ref: 2025/011/S36MAR)

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017 ("the EW 2017 Regulations")

THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017 ("the MW 2017 Regulations")

THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 ("the MW 2007 Regulations")

Collectively, "the EIA Regulations"

CONSULTATION UNDER REGULATION 12(4) OF THE EW 2017 REGULATIONS, REGULATION 14(4) OF THE MW 2017 REGULATIONS, SCHEDULE 4, REGULATION 6 OF THE MW 2007 REGULATIONS.

#### 1. Introduction

1.1 The following is Shetland Islands Council's Planning Service response to a scoping opinion consultation request received from Marine Directorate - Licensing Operations Team (MD-LOT) on 11 July 2025. The request is received in accordance with the above EIA Regulations, seeking the views of the Local Planning Authority on the scope and level of detail of information to be provided in the Environmental Impact Assessment (EIA) Report to be submitted by the applicant alongside future marine development consent applications for the proposed development.

1.2 This scoping consultation response provides comment on the Offshore Scoping Report. Please note that the response is given without sight of specialist advice or comments provided by other agencies such as NatureScot and JNCC. As such, the comments are given without prejudice to the full consideration and assessment of the EIA Report as part of any future formal consultation exercise under the appropriate regulations and taking due account of specialist advice and feedback at that time.

# 2. Proposal and Consenting Context

- 2.1 The scoping report relates to a proposed offshore wind farm to be known as Stoura Offshore Wind Farm and falls within the NE1 Plan Option Area as outlined in the Sectoral Marine Plan (2020). The proposal involves:
- A maximum generating capacity of approximately 500MW, utilising floating wind technology. It is proposed that a maximum of 40 wind turbine generators (WTGs) will be installed within the Stoura Array Area.
- The Offshore Project may also include an offshore substation platform (OSP) mounted on a fixed jacket structure
- The electricity generated by the Offshore Project will be transmitted via submarine cables to a grid connection point. Although the final grid connection location is yet to be determined, it is assumed that the Offshore Project will connect to Mainland Shetland, with discussions ongoing between the Applicant and National Grid regarding the connection node
- 2.2 It is noted that the onshore aspects of the proposal (e.g. transmission infrastructure above MLWS) will be subsect to a separate consent. The Scoping Opinion states that the construction programme for the Project will need to align to availability of the onshore grid infrastructure, which is separate to the Project and currently anticipated to be delivered in 2035. As such, the Offshore Project programme will be refined as confirmation is provided on grid infrastructure but is expected that it will take approximately 5 years for construction of the Offshore Project, taking into consideration suitable weather windows.
- 2.3 It is understood that the Offshore EIA Report produced following this scoping exercise will be submitted by the applicant alongside the following future marine development consent applications which are required for the proposal:
  - Section 36 consent from Scottish Ministers under the Electricity Act 1989;
  - Marines Licences from Scottish Ministers under the Marine (Scotland) Act 2010 (within 12 nautical miles) and the Marine and Coastal Access Act 2009 (outwith 12 nautical miles); and

 Works Licences from Shetland Islands Council under the Zetland County Council Act 1974 (principally the submarine cables associated with the proposal that fall within 12 nautical miles of Shetland).

# 3. Policy & Legislation

3.1 The scoping report sets out the key policy and legislative context relevant to the proposed offshore development. In terms of Scottish marine planning policy, the following national, and local plans and policies will be key in the determination of the future development consent applications required for the proposal:

#### National Level

- Scotland's National Marine Plan (2015) covers the management of both Scottish inshore waters (out to 12 nautical miles) and offshore waters (12 to 200 nautical miles). We are aware that work is progressing on the next Plan (NMP2).
- <u>National Planning Framework 4 (2023)</u> Scotland's national spatial strategy setting out the spatial principles, regional priorities, national developments and national planning policy (including in relation to renewable energy developments (onshore and offshore);
- Sectoral Marine Plan for Offshore Wind Energy (2020) identifies sustainable plan options for the future development of commercialscale offshore wind energy in Scotland (including the NE1 area which the proposed Stoura Offshore wind farm sits within); We are aware that work is progressing on an updated Sectoral Marine Plan for Offshore Wind Energy following the public consultation on the Draft which ended on 22 August 2025.

#### Local Level

- Shetland Local Development Plan (2014) is the established planning policy for Shetland containing a range of policies which apply to land-based and marine developments, including <u>Policy</u> <u>CST1 Coastal Development</u> which applies to all marine developments out to 12 nautical miles;
- Shetland Islands' Marine Spatial Plan (2015) adopted as Supplementary Guidance to the Shetland LDP, the SIMSP sets out a spatial strategy and policy framework to guide marine developments in the coastal waters around Shetland (relevant only within 12 nautical miles of Shetland);

- Shetland Islands Regional Marine Plan currently with Scottish
  Ministers awaiting adoption, which is anticipated to be in 2025.
  Upon adoption the SIRMP will be the main policy and data
  framework to support decision-making in the Shetland Marine
  Region which extends out to 12 nautical miles. Until the point of
  adoption, the SIMSP will remain the relevant marine plan for
  Shetland.
- Shetland Islands Council Works Licence Policy (2017) sets out the policies which works licence applications under the Zetland County Council 1974 will be assessed against (relevant only within 12 nautical miles of Shetland).
- Shetland Energy Development Principles (2022) is a set of principles promoted to all existing and prospective energy developers, UK and Scottish Governments, their agencies, relevant regulators and others, and which focuses on ensuring renewable energy is developed in an environmentally responsible manner and delivers benefits locally as well as nationally;
- Shetland Energy Strategy (2024 Draft) provides an opportunity to
  put in place a framework to support decision-making on local
  energy transition projects for all organisations and stakeholders,
  and which ensures a Shetland approach that recognises legitimate
  local interests and concerns. Due regard should be had to the
  latest version of this document at the time the EIA Report is being
  prepared.
- <u>'A Fair Share for Shetland'</u> developed by the Energy Transition
   Task Force and endorsed by Shetland Islands Council in December
   2024. The document aims to ensure the islands receive substantial
   local value and community benefits from developing renewable
   energy projects, as national energy security needs drive new
   infrastructure.
- Analysis of Community Benefits in Shetland' which promotes as
  best practice the principle that community benefit funds should be
  held and managed by local democratically accountable
  organisations, further aligning with the "fundamental principle"
  asserted by the Just Transition Commission in their report on
  Shetland, that "these funds belong to local people and therefore it is
  for local people to decide how those resources are allocated."
  Specifically for floating offshore wind, the Council has endorsed the
  policy promoted in this report of aiming for 2.5% of gross project

revenues as an appropriate and viable level of return and further recommends a guaranteed minimum income payment of £5.0k/MW/year (2024 prices, index-linked).

- Environmental Monitoring of Marine Renewable Developments work is progressing on developing a monitoring group which
  includes representatives from Shetland Islands Council, the
  Shetland Fishermen's Association, the aquaculture industry, the
  renewables industry, environmental organisations, SSEN and CES.
- 3.2 Any future marine development consent applications, including the related EIA Report, where relevant, for the proposed development should take account of and be compatible with the above national and local plans and policies. A full and comprehensive review of all relevant marine planning policies will be undertaken by Shetland Islands Council where they are a consultee on any future application submitted to Scottish Ministers for the proposal. Likewise, such an assessment will be undertaken by the Council for any works licence and planning applications submitted directly to them for any marine and onshore aspects of the proposed development.

# 4. Topics to be Scoped Out of the Offshore EIA Report

- 4.1 The scoping report proposes that the following topics be scoped out of the Offshore EIA Report for the proposed development on the basis that such matters are not likely to give rise to significant effects on the environment:
  - Offshore Airborne Noise and Vibration;
  - Offshore Air Quality;
  - Waste Management; and
  - Human Health.\*
- 4.2 Shetland Islands Council Planning Authority is minded that the justification provided in the scoping report for the above topics to be scoped out of the Offshore EIA Report (EIAR) for the proposed development seems reasonable and agrees that such matters are unlikely to result in any significant environmental effects. We are therefore in agreement that the above topics can be scoped out.
- \* We note that p67 of the Scoping Report states "A standalone chapter for human health is not included in this Scoping Report. Instead, potential effects on human health will be assessed within relevant topic Chapters or through a specific 'Human Health' chapter in the Onshore Scoping Report. This integrated approach allows for a thorough consideration of human health implications alongside other environmental factors". We support this approach as impacts upon human health will be a relevant

consideration and require coverage in the EIA Report chapter on Seascape, Landscape and Visual Impacts Assessment in particular.

# 5. Topics to be Scoped in to the Offshore EIA Report

- 5.1 Shetland Islands Council is minded that the remaining topics in the scoping report could give rise to significant environmental effects and should therefore be scoped in to the Offshore EIAR for the proposed development.
- 5.2 For many of these topics we consider that NatureScot/JNCC is best placed to lead and advise the developer. We wish to offer the following additional observations under the EIA topic headings as set out in the Scoping Report:

# Offshore Physical Environment

#### Physical Processes

- Table 8.2 sets out the protected areas and designated sites within the Physical Processes Study Area. As these cover MPAs, SACs, SSSIs, we consider that NatureScot/JNCC is best placed to lead and advise the developer on this issue.
- The impacts scoped in (Table 8.3) appear relevant. Consideration should be given to the impacts of increased Suspended Sediment Concentrations upon commercial fisheries and aquaculture development as part of the CSIP, as this may be a relevant consideration depending upon the ultimate route of the cable installation.

#### **Underwater Noise**

 We consider that NatureScot/JNCC is best placed to lead and advise on this area.

# Offshore Water and Sediment Quality

- We consider that SEPA is best placed to lead and advise on this area.
- When considering the impacts of sediment bound contaminants upon fish and shellfish ecology within the EIA Report, prior engagement should be undertaken with local fisheries and aquaculture organisations and developers on this matter.

## Climate Effects

 We have consulted our Climate Change Team on the EIA Scoping Report, but they had no comments on this section.

# Offshore Biological Environment

# Fish and Shellfish Ecology

- We note the Fish and Shellfish Ecology Study Area identified in the Report. Due
  to the significant importance that commercial and inshore fishing provides to the
  Shetland, its economy and communities we are of the view that this topic should
  be thoroughly assessed and in considerable detail within the EIA Report.
- We also not that cumulative impacts will consider cable and interconnector projects, which we agree with.

#### Marine Mammals

 We consider that NatureScot/JNCC is best placed to lead and advise on this area.

# Offshore Ornithology

 We consider that NatureScot/JNCC is best placed to lead and advise the developer on this area.

#### Offshore Human and Socio-Economic Environment

#### Commercial Fisheries

- The Shetland Fisherman's Association (SFA) and Shetland Shellfish Management Organisation (SSMO) may have been consulted on this Scoping Report and they along with other fishing organisations and representatives have been engaging on the Arven and Stoura development as part of the NE1 Fishing Forum and also work that is progressing through the 'Environmental Monitoring of Marine Renewable Developments' in Shetland. Consideration should be given to their views and opinions expressed in any responses that have been made.
- Additionally, local Shetland fishing associations including the Shetland Inshore
  Fisheries Group, SFA and SSMO, may hold significant data to help improve the
  accuracy of the EIA Report in relation to impacts on commercial fishing. We
  would expect that UHI Shetland, who would also hold data, would be consulted
  and this should continue throughout the EIA Report drafting process.
- Potential Project Impacts (10.1.5) Any of the impacts listed will have direct impacts on the fish catching sector, but will then have consequent indirect and induced impacts on the supply chain which supports the catching sector. This includes, but is not limited to, ports and harbour activities, transportation/haulage, buyer and auction services, engineering, wholesale and retail, and business services. This should be a major consideration of any impact calculations.

- Impacts upon Shetland's commercial fishing industry also require full and proper consideration in the EIA Report. This is especially the case when taking account of the economic, social and community importance of our fishing, and also, aquaculture industries. For example (2023 figures show):
  - 34% of all the fish landed by UK fishing boats are caught within 50 miles of Shetland.
  - 10% of all the fish landed by UK fishing boats are landed in Shetland.
  - More fish are landed in Shetland than in all of England, Wales and Northern Ireland.
  - Shetland has 40% of Scotland's pelagic fleet, 25% of Scotland's whitefish fleet and 20% of Scotland's under 10m fleet.
  - All Shetland fishing vessels, bar one, are family owned and therefore represent 250+ individual businesses, owned and crewed by 450+ residents, with an annual turnover of £138.9m
  - Additionally, Shetland's fishing industry plays an important role in food security for Scotland and beyond.

With regards to Shetland's aquaculture industry, we are aware that:

- Shetland salmon farms produce more than 36,000 tonnes of salmon annually, which is worth more than £190 million. The salmon sector employs 270 full-time staff and now accounts for the largest single sectoral proportion of Shetland economic output, bigger than oil and gas and tourism.
- Shetland finfish/salmon aquaculture accounted for 22% of the total Scottish production in 2023.
- Shetland shellfish aquaculture accounts for 80% of the total Scottish production and employs 55 full-time and 46 part-time and casual workers.

# **Shipping and Navigation**

 We note that Table 10.6 'Impacts proposed to be scoped in to the project assessment for shipping and navigation' includes matters such as vessel displacement and reduced access to local ports and harbours (including Sullom Voe). The Council's Harbour Master and Ports and Harbour Operations should be contacted when developing this section of the EIA Report.

## Marine Archaeology

 We consulted our Regional Archaeologist who considers that marine archaeology has been covered reasonably well. They wish to make the following observations:

- The absence of HER (SMR) at the scoping stage was noted, however, there is an intention is to include HER data in the EIA, which they support. It is worth noting that the data in the HER is more accurately defined spatially, compared to the data in canmore.
- HER contains additional information on more wrecks in the inshore zone than canmore, but that the data does not extend as far offshore as some of that held in canmore. Therefore the two data sources are complementary.
- The Scarf chronology is not a good fit for the North of Scotland. There is no period of Roman influence and the Long Iron Age extends until c.850AD, when Viking influence begins. It would be helpful to adjust this table for future documentation.
- It is considered that the list of sources at 10.12 is appropriate. The list does not however include the archaeological examination of marine geophysical and any intrusive surveys which should also feed into this process, preferably at the EIA stage, or subsequently, as part of a phased archaeological investigation should the marine geophysics not be available until later in the process. (This is referenced at 10.4.8.4). The marine geophysics results have the potential to lead to a requirement for micrositing or other mitigation which should be born in mind when proposing routes and locations.
- It isn't possible to define the mitigation required in advance of the results of the
  examination of all the sources, including the HER and geophysics. That piece of
  work should enable appropriate mitigation measurements to be proposed for
  agreement with the Shetland Islands Council Regional Archaeologist.
- It has been agreed that the proposed area is appropriate. They have remarked
  that it is worth looking at the HER in order to see if there are other significant
  sites which need to included. Not all nationally important archaeological sites are
  actually covered within HES designations.
- The key issue affecting the land based Cultural Heritage will be where the subsea cable lands at the shore. Although this might form part of a separate application, it should also be considered within this application because the landing place would potentially impact on the route of the cable. This is a key factor within risk management. In carrying out that piece of work the HER should be consulted for a suitably extensive area as to allow for mitigation by avoidance if at all possible.

## <u>Infrastructure and Other Users</u>

• The Cable Plan, cable corridor and cable routing options for onshore grid connections on the Shetland Mainland have the potential to have significant

impacts upon other marine users and infrastructure, including inshore fishing, recreation, aquaculture and existing cables and pipelines. We will therefore continue to engage with the developer as the EIAR is progressed, especially in regards to future Works Licence applications made to Shetland Islands Council under the ZCC Act 1974.

It is noted that subsea cables and interconnectors supplying electricity and digital
connectivity to island communities have been identified in Section 10.2.4.14 and
10.5.4.13-16. This is a critical consideration as impacts to connectivity and power
supply to island communities can have major negative impacts on the health and
wellbeing of residents and businesses, and these should be considered
thoroughly in the design of mitigation measures.

#### Socio-economics

- There are a number of further data sources which are either complete or in progress which should be consulted to inform the socio-economics chapter. These include:
  - Shetland Visitor Survey 2024
  - Shetland Skills Survey 2024
  - Key Worker Housing Study (availability tbc)
- 10.6.6.3 the report states that lifeline ferry services will be scoped out of the socio-economics impact assessment as the location of the Stoura array does not interact with these routes. However, it should be considered in the assessment that any large scale project requiring the transportation of workforce, supplies and equipment will require transportation solutions which will potentially impact on the capacity of lifeline transportation routes with consequent impacts on individuals and the wider economy;
- 10.6.6.3 the reports states that any direct, indirect and induced employment
  effects will be beneficial in nature, which will affect the need for impacts on fragile
  economies to be scoped in. However, the labour market constraints experienced
  in Shetland mean that any employment effects may lead to displacement of
  existing employment rather than being wholly additional, which may lead to
  negative impacts on recruitment and retention in other economic sectors;

# Seascape, Landscape and Visual Impact Assessment

- We consider that NatureScot/JNCC and Historic Environment Scotland will be best placed to lead and advise the developer on this area, especially with regards to impacts on the NSA and Historic Environment respectfully.
- We note that landscape and seascape impacts have been scoped into the EIA.
   There does not, however, appears to be any reference to proposed Local Landscape Areas (pLLAs). The pLLAs were approved by the Council in December 2012 for consultation with the public and stakeholders as part of the draft Supplementary Guidance (SG); that SG has not yet been adopted. The

pLLA statements (<a href="https://www.shetland.gov.uk/downloads/file/1593/local-landscape-areas">https://www.shetland.gov.uk/downloads/file/1593/local-landscape-areas</a>) set out the key characteristics for the pLLAs.

We would also welcome further discussions with the applicant to agree the
proposed viewpoint locations, for instance the Noss Head on Noss may be a
more appropriate viewpoint location as it is a well visited site on the Noss Nature
Reserve, visited by both locals and tourists and just under 40m higher than
Ander Hill.

#### **Additional Comments/Observations**

- Section A4.62 of the Scoping Report makes reference to the ZCC Act 1974 and works licences, but has omitted reference to the Council's Works Licence Policy, which requires to be considered: works-license-supplementary-guidance-2017 (shetland.gov.uk)
- We are pleased to note that Section A3.7 refers to the Council's Energy
  Development Principles. We shall continue to engage with the developer to set
  out how these should be considered and addressed in next stages of the EIAR
  process and supporting information submitted alongside future consent
  applications.
- Shetland Islands Council will continue to engage with MD-LOT and the developer concerning works that come under the remit of the ZCC Act 1974 for works licencing. This is especially relevant to future cable routes/submarine cables as these develop and routes are identified as part of the EIA, Marine Licence and Works Licence processes.
- Finally, we would also welcome the opportunity to discuss the land-sea interface
  of this proposal, landing points for cables and the land-based infrastructure
  aspects as well as the onshore EIAR and cumulative impacts of this.

Yours faithfully

Simon Pallant Coastal Zone Manager

# Sheltland Marine Planning Partnership

From: Marine Plan Shetland < MarinePlan.Shetland@uhi.ac.uk>

**Sent:** 22 August 2025 16:01 **To:** MD Marine Renewables

Subject: RE: REMINDER - SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore

Wind Farm - Consultation on Request for Scoping Opinion & HRA Screening -

Response Required

Objective: -1

# Good afternoon

We have been notified that the Shetland Islands Council will be submitting a response, please accept their response on behalf of the Shetland Marine Planning Partnership.

Many thanks Kathryn

Kathryn Allan Marine Planning Officer



[Redacted] 01595 772324 | [Redacted]

shetland.uhi.ac.uk
Scottish charity no. SC050701

# Scottish Southern Electricity Networks - Transmission



Scottish Hydro Electric Transmission Plc.
Prime View, Prime Four Business Park
Kingswells Causeway
Aberdeen
AB15 8NY

The Scottish Government
Marine Directorate Licensing and Operations Team
Marine Laboratory
Aberdeen
AB11 9DB

Submitted via email: MD.MarineRenewables@gov.scot

24 July 2025

Dear Marine Directorate, Licensing and Operations Team,

REF: SCOP-0071 - Stoura Offshore Wind Farm

Thank-you for the opportunity to provide comment on the Stoura Offshore Wind Farm scoping report.

As the owner of the electricity transmission network in the North of Scotland, Scottish Hydro Electric Transmission plc (trading as Scottish and Southern Electricity Networks (SSEN) Transmission) we are currently progressing over £22bn of investment across our network area both onshore and offshore, enabling the connection of the renewable energy needed to meet Scottish and UK Government 2030 energy targets and beyond: providing greater homegrown energy security and supporting Scotland and the UK's pathway to Net Zero.

SSEN Transmission would like to highlight that Stoura's offshore export cable search area as detailed in the scoping document overlaps with SSEN Transmissions 'Shetland 2 HVDC link' and 'Yell HVAC connections' project areas of interest. These projects should be considered in section 10.5 Infrastructure and Other Users. Please see the most recent information available for these projects at the following links <a href="Shetland HVDC link 2 - SSEN Transmission">Shetland HVDC link 2 - SSEN Transmission</a>, <a href="South Yell Substation - SSEN Transmission">South Yell Substation - SSEN Transmission</a>. Therefore, we encourage regular engagement between the Stoura project and ourselves with respect to export cable corridors and requirements for proximity and/or crossing agreements as per the International Cable Protection Committee and the European Subsea Cables Association guidelines.

It should also be noted that as providers of critical national infrastructure there is the potential for future projects beyond 2030 to be located within and adjacent to the Stoura offshore wind farm and transmission corridor, therefore presenting the potential for future interactions.

We remain committed to working with other legitimate users of the sea in a proactive manner, enabling all parties to deliver successful projects wherever reasonably possible. This is especially important where crossing agreements are to be developed, giving due consideration and provision for present and future cables to cross both export and generation sites, maintaining the freedom of the seas for both telecommunications and power cables. We reiterate and encourage regular and proactive engagement as the Stoura Offshore Wind Farm progresses.

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213460; (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having their Registered Office at No.1 Forbury Place, 43 Forbury Road, Reading, RG1 3JH which are members of the SSE Group www.ssen.co.uk



Lastly we highlight and suggest the use of our 'Project map' <u>Project Map - SSEN Transmission</u> as this will provide the most up to date information regarding any developing SSEN Transmission projects.

I am happy to discuss further the comments above should there be any follow-on questions or concerns.

Yours sincerely

Tetrienne Kerswell-Box
Marine Consents and Environment Manager |

[Redacted]

# **Transport Scotland**

# Development Management and Strategic Road Safety Roads Directorate

George House 36 North Hanover St Glasgow G1 2AD [Redacted]



Jennifer Goodheir Marine Directorate 5 Atlantic Quay 150 Broomielaw Glasgow G2 8LU Your ref: SCOP-0071

Our ref: GB01T19K05

Date: 06/08/2025

MD.MarineRenewables@gov.scot

Dear Sirs,

THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 CONSULTATION UNDER REGULATION 12(4) OF THE EW 2017 REGULATIONS, REGULATION 14(4) OF THE MW 2017 REGULATIONS, SCHEDULE 4, REGULATION 6 OF THE MW 2007 REGULATIONS

SHETLAND OFFSHORE WIND LIMITED – STOURA OFFSHORE WIND FARM – APPROXIMATELY 52KM EAST OF SHETLAND

With reference to your recent correspondence on the above development, we acknowledge receipt of the Scoping Report (SR) prepared by Electricity Supply Board (ESB) in support of the above development.

This information has been passed to SYSTRA Limited for review in their capacity as Term Consultants to Transport Scotland – Roads Directorate. Based on the review undertaken, Transport Scotland would provide the following comments.

# **Proposed Development**

The Stoura Offshore Project comprises offshore generating and transmission components, including 40 wind turbine generators (WTGs) and onshore infrastructure, required to generate and transmit electricity from the Stoura Array Area to the mainland. The site is located approximately 52km east of Shetland, with the nearest trunk road to the site being the A9(T) at Scrabster on the Mainland.

## **Assessment of Environmental Impacts**

We note that the Scoping Report has been prepared to support the Offshore Project, and considers all activities associated with the Offshore Project extending seawards from MHWS.

It is also noted that onshore elements of the Project, including the Onshore Transmission Infrastructure above MLWS, will be subject to a separate consent application with these being addressed in a separate Onshore Scoping Report. This includes landfall infrastructure, onshore cabling, onshore substation and associated infrastructure.

Given the above, we confirm that Transport Scotland has no comment to make on the Offshore SR. We would, however, state that in the event that the Project components are to be transported via the Scottish Mainland, Transport Scotland would expect that an assessment of the potential impacts associated with increased traffic on the trunk road network would be provided within the Onshore EIA.

#### **Abnormal Indivisible Loads**

We would also state that in the event that any Abnormal Indivisible Load (AIL) deliveries are required to be transported on the Scottish Mainland during construction, a full Abnormal Load Route Assessment (ARLA) should be provided that identifies key pinch points on the trunk road network. Swept path analysis should be undertaken and details provided with regard to any required changes to street furniture or structures along the route.

Transport Scotland would expect to be consulted should the Onshore proposals come forward as a planning application

I trust that the above is satisfactory but should you wish to discuss any issues raised in greater detail, please do not hesitate to contact me or alternatively, Alan DeVenny at SYSTRA's Glasgow Office can assist on 0141 343 9636.

Yours faithfully

[Redacted]

**George Smith** 

Transport Scotland Roads Directorate

cc Alan DeVenny – SYSTRA Ltd.

# **UK Chamber of Shipping**

From: [Redacted]

To: MD Marine Renewables

Cc: [Redacted]; [Redacted]

Subject: RE: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on Request

for Scoping Opinion - Response Required by 07 August 2025

**Date:** 09 July 2025 17:49:24

Attachments: image001.png image004.png

Dear Marine Scotland,

Thank you for the opportunity to respond to the Scoping Report for Stoura Offshore Wind Farm. The Chamber has focussed solely on aspects relating to Shipping and Navigation and responds to the posed questions below:

do you agree that the guidance proposed is suitable and sufficient?

The guidance listed is as the Chamber would expect and is suitable. We are not in a position to comment upon its sufficiency and would defer to MCA as regulator.

 do you agree that key data sources have been included to inform the Shipping & Navigation Chapter of the EIA?

The data sources look as typical. The Chamber welcomes 20 years of MAIB data being examined, and recommends that a full 12 months of AIS only data be analysed for seasonal variation in addition to the MGN 654 survey data.

• do you agree that the study area defined for the NRA is suitable and sufficient (noting that the requirements of MGN 654 have been applied in the proposed approach)?

Yes the 10nm study area is suitable and sufficient, however particular consideration should be given to the ATBA and Precautionary Area should there be distinct and apparent routeing deviations.

The Chamber otherwise expects to see a 50nm wider study area for cumulative impacts as is customary.

 do you agree that the methodology outlined for undertaking the risk assessment is suitable, including on a cumulative level?

Yes this is standard.

 do you agree that all potential impacts have been identified for shipping and navigation users?

The list is as expected, however given the floating nature of the development, the Chamber would like to see risk from detachment, whilst under tow, also included as well as loss of station.

The Chamber also notes inclusion of wet storage analysis and welcomes this as important.

do you agree with the suitability of the proposed mitigation measures?

The mitigation measure are suitable however sufficiency will not be able to be

determined until the NRA and hazard workshop or beyond once full impact to shipping and navigation more clearly understood.

 are there any other issues related to Shipping & Navigation that should be identified for this Project?

The Chamber has not identified any at this time.

Yours faithfully, Robert

# **Robert Merrylees**

Policy Manager (Safety & Nautical) & Analyst

## **UK Chamber of Shipping**

30 Park Street, London, SE1 9EQ

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# Whale and Dolphin Conservation (WDC)

[Redacted] From:

To: MD Marine Renewables

Re: SCOP-0071 - Shetland Offshore Wind Limited – Stoura Offshore Wind Farm – Consultation on Request for Scoping Opinion & HRA Screening – Response Required by 7 August 2025 Subject:

Date: 01 August 2025 11:11:22

image004.png image860435.png Attachments:

Hi,

Thank you for the invite but we will not be engaging at this stage.

Please feel free to contact WDC if you have any questions.

Kind regards,

Emma

#### **Emma Milner**

Offshore industries coordinator

**WDC, Whale and Dolphin Conservation** Telephone: +44 (0)1249 449 500

whales.org

# SAVE THE WHALE. SAVE THE WORLD.