Anderson MacArthur on behalf of Lewis Island Crofters Limited

Anderson MacArthur
Estate Factors

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Marine Directorate
Scottish Government
By e-mail to: - MD.MarineRenewables@gov.scot

Your Ref: SCOP-0032

Our Ref: MMK/LIC

Date: 18 December 2023

Dear Sir/Madam

LEWIS ISLAND CROFTERS LIMITED
SCOP-0032 – SPIORAD NA MARA OFFSHORE WINDFARM – ISLE OF LEWIS

We write as the Estate Factors on behalf of Lewis Island Crofters Limited landlords of Dalmore Estate, which Estate comprises the villages of Upper Carloway, Park Carloway, Garenin, Borrowston, Dalmore, Dalbeg and South Shawbost on the West Side of the Isle of Lewis. We write with the response to the above scoping report in respect of the Spiorad na Mara Offshore Windfarm proposal. The response headings refer, in the main and for ease, to relevant numbered parts of the scoping report to which the comments apply

By way of preliminary comment, the proximity of this development to shore is highly irregular and has caused concerns within the communities affected. Some groups of residents are seeking advice on how to object to the development prior to the consenting process commencing. Should the development proceed, there would need to be a significant benefits package made available to residents along the western seaboard of the Isle of Lewis, including the communities of the Dalmore Estate, in return for hosting such massive infrastructure.

1.4 Project Overview / 2.2 Project Scope
It is very concerning that there was such a significant change between potential zones alluded to in the Sectoral Marine Plan Areas of Search and N4 in the Draft Plan Options around a year later. One of the key risks noted in the Sectoral Marine Plan was :
Potential adverse visual impacts and landscape/seascape character impacts.

Accordingly, there will be significant visual impact from an array of up to 66 turbines potentially 380m to tip height between 5km and13 km offshore. Onshore, a gigantic substation of up to 50,000sqm would dominate the landscape which currently comprises areas of open moorland with scattered crofting townships.

Should the project proceed, there will need to be considerable care taken in turbine positioning, development density, height and other aspects that will impact on visual impact. Curiously, Section 2.6.1.1. does not mention this in its description of the factors involved in determining layout.

1.6 Consenting Strategy / 3.4 Planning Legislation
Whilst utilising Section 57 of the Town and Country Planning (Scotland) Act 1997 via a single application for consent under Section 36 of the Electricity Act 1989 is a feasible option for onshore elements, it would be regarded as much less transparent and democratic by members of the public.

2.8.1 Onshore Export Cables and Associated Infrastructure
The proposal to adopt underground cabling is strongly supported and overhead infrastructure should not be used.

5.2 Stakeholder Identification
Whilst the list of stakeholders is not intended to be exhaustive, there are important types of organisations who appear to have been omitted e.g. Highlands and Islands Enterprise, Community Councils and community landowners.

6.9.3.5 Salmon and Sea Trout
There are concerns about the potential impact on the Carloway River salmon spawning grounds which is a specific concern to be responded to in the EIA. The Carloway River is on the boundary with Dalmore Estate, although not part of its proprietorship interest.

6.9.6.2 Consultation
The Western Isles Fisherman's Association appears to have been omitted from the list of consultees.

7.8.5.1 Likely Significant Effects
Table 7.8-2 appears to omit any reference to risks to human receptors leading to adverse health effects. These can include sleep disorders, headaches, mood disorders, inability to concentrate, tinnitus, effects on vestibular (balance) and heart, and vibratory sensations. Causes have been proposed such as amplitude modulation; lack of night-time abatement; audible LFN; inaudible LFN/infrasound; tonal noise; electrical pollution/stray voltage; and visual impacts such as shadow flicker and flashing lights. Reference is made to research such as *Wind turbines and adverse health effects: Applying Bradford Hill's criteria for causation (*Dumbrille, McMurtry and Krogh; October 2021; www.environmentmed.org).

7.9.3.2 Overview of Baseline Environment
Whilst crofting is correctly highlighted, the requirement to remove land from crofting tenure (via application to the Scottish Land Court) to facilitate onshore development appears to have been overlooked. The need for the crofting rights to be properly addressed and for there to be suitable compensation for the loss of any croftland to onshore developments is essential.

7.9.6.1 Consultation
Highlands and Islands Enterprise and community landowners should be added to this list. The Crofting Commission could be a useful addition also. Lewis and Harris Riding Club may be a more relevant consultee than the British Horse Society.

7.9.6.2 Policy, Legislation and Guidance
There are a number of documents that have been omitted, such as the Outer Hebrides Community Planning Partnership Local Outcomes Implementation Plan 2017-27, Islands Growth Deal, Comhairle nan Eilean Siar Corporate Plan 2022-27, Highlands and Islands Enterprise Strategy and Operating

Plan 2023-28, community landowner strategic plans such as the Dalmore to Garynahine Community Plan and the Urras Oighreachd Ghabhsainn Strategic Plan.

8.2.3.1 Data Sources

Important sources of data have been omitted such as National Records of Scotland and the National Islands Plan Survey (Scottish Government), Highlands and Islands Enterprise, Outer Hebrides Community Planning Partnership and the Western Isles Integrated Joint Board.

We trust that this response will be considered along with others to the scoping report.

Yours faithfully

[redacted]

Barvas Estate Trust

Scoping Report – Spiorad Na Mara

Response from Urras Sgire Oighreachd Bharabhais Community Company

Introduction

Urras Sgire Oighreachd Bharabhais (Bharabhais Estate Trust) is one of the community owned estates that will be closest to this development. The proximity of this development is unique, as it is the closest to land of all the Scotwind areas and has caused concerns within the community. The development will create a significant visual impact from an array of up to 66 wind turbines potentially 380m to tip height and between 5km and 13km from the shore. Onshore, an enormous substation, up to 50,000sqm, would dominate the landscape. This landscape currently comprises areas of open moorland and crofting townships. Some residents are already seeking advice as how to object to this development. If it were to proceed, there would need to be a significant community benefit package for the communities along the western seaboard of the Isle of Lewis.

1.6 Consenting Strategy / 3.4 Planning Legislation

Whilst using Section 57 of the Town and Country Planning (Scotland) Act 1997 via a single application for consent under Section 36 of the Electricity Act 1989 is a feasible option for onshore elements, it would be regarded as much less transparent and democratic by members of the public. Therefore, the planning application for offshore infrastructure should be to Marine Scotland and the application for onshore infrastructure should be to Comhairle na Eilean Siar.

2.6.1.1 Layout

Such a significant change between the zones alluded to in the Sectoral Marine Plan and N4 in the Draft Plan Options is alarming. One of the key risks noted in the Sectoral Marine plan was: Potential adverse visual impacts and landscape/seascape character impacts. Should the project proceed care taken in turbine positioning, development density, height and other aspects that would impact on visual impact. This therefore should be added to section 2.6.1.1 as a factor for determining layout.

2.8.1 Onshore Export Cables and Associated Infrastructure

The proposal to adopt underground cabling would be supported if the development proceeded but overhead infrastructure would not be supported and should not be used.

5 Consultation

It is considered that desktop surveys are not the most accurate and that people are needed to be on the ground carrying out the surveys with the communities who are actually here at present.

5.2 Stakeholder Identification

The overall consultee list is limited and should include Highlands and Islands Enterprise, Community Councils, Landowners and Grazing Committees. Single aspects of the EIA should also have additional consultees such as Historic Environment Scotland (HES) (regarding

chapter 6.13 and St Kilda and the Flannan Isles) and an Independent Medical Body (to advise on human health impacts of WTGs and onshore infrastructure).
A pre application consultation should also be considered.

6. Offshore
More detail should be included regarding the decommissioning of the WTGs and associated infrastructure when the project comes to an end.

6.1 Physical and Coastal Processes
Additional studies should be undertaken to look at coastal erosion and displacement along the coastline closest to the proposed area for turbine construction.

6.3 Marine Sediment and Water Quality
A base line needs to be established so as this can be monitored during construction and then during the project and decommissioning.

6.9 Commercial Fisheries
The area being affected by the WTGs and cable route are productive fishing grounds for many commercial fishing boats. Additional consultation with those who use this area should be carried out to identify the effect on their livelihoods.

6.9.6.2 Consultation
As already mentioned in 6.9 additional consultation is required. One group that appears to have been omitted from the list of consultees is The Western Isles Fisherman's Association.

6.9.3.5 Salmon and Sea Trout
There are concerns about the potential impact on the Barvas and Arnol Rivers spawning grounds which is a specific concern to be responded to in the EIA. This is especially of importance as with the recent announcement that Atlantic Salmon has been added to the endangered species list.

6.12 Offshore Infrastructure, Other Sea Users, Tourism and Recreation
Further studies are required to identify how this development will affect the recreational fishing that takes place in these waters. How this development will affect the Bragar slipway, surfing community etc. should also be looked at.

6.13 (Offshore) Seascape, Landscape and Visual Impact Assessment
Consultees should include local Community Councils & Estates as well as HES. A precautionary approach might consider a wider radius, e.g., 120km to include St Kilda, double UNESCO World Heritage Site as well as the Flannan Isles (Special Protected Area). Suggest these impacts are included in EIA scope (currently scoped out) - due to sensitive offshore islands of St Kilda, as well as visual impact on Flannan Isles: "Operation and maintenance phase seascape, landscape, and visual impacts of the offshore elements of the Project outside the 60 km radius SLVIA Study Area" and "Impact of the operation and maintenance of the Project on the views experienced by offshore visual receptors".

7.1 Onshore – Landscape and Visual Impact Assessment
The consultees for Onshore Impacts should include Community Councils, Community Landowners and Grazing Committees to provide appropriate community input and representation. In addition to a Visual Impact Assessment, the EIA should include a Noise Impact Assessment carefully evaluating the risk that low frequency noise and infrasound pose to human and nonhuman life within a wide radius of N4 due to the scale of the WTGs and proximity of the project to shore. This assessment should be accompanied by a comprehensive review of peer reviewed research on the effects of infrasound on human and nonhuman life.

7.2 Onshore Ecology
The information presented in this section appears to be vaguer compared to other chapters (such as the chapters on offshore ecology). This chapter states that the areas in which development might take place are yet undecided. This appears to be at odds with the principle applied elsewhere in the EIA Scoping Report where the worst-case scenario is used for the scoping assessment. In the 'justification' column of the impact tables (p.440-445) it also goes further than justifying why the selected impacts are/are not included, going on to suggest something along the lines of how the impacts might be mitigated. Determination of how impacts will be avoided or mitigated (beyond embedded mitigation) should be carried out in the EIA itself, which would then go to Planning for decision makers to make a judgment on.

7.3 Onshore and Intertidal Ornithology
"Collision risk" should be included in the scope (currently "out" of scope) given that pylons have not been ruled out. "As the extent of potential intertidal habitat within 500 m of the Landfall and Landfall Substation Area of Search and Grid Substation Area of Search is extremely limited, and will reduce further as search areas are refined, it is proposed that Intertidal Surveys are scoped out." (p.457) Question for consultees: Do you agree that intertidal bird surveys can be scoped out and are not required to inform the assessment? (p.467) Additional surveys should be conducted to determine breeding populations of red list species.

7.5 Traffic and Access
Cumulative effects of increased traffic flow should be included in scope due to the project coinciding with greater number of cruise ship tourist traffic and offshore projects.

7.8.5.1 Likely Significant Effects
Table 7.8-2 appears to omit any reference to risks to human receptors leading to adverse health effects. These can include sleep disorders, headaches, mood disorders, inability to concentrate, tinnitus, effects on vestibular (balance) and heart, and vibratory sensations. Causes have been proposed such as amplitude modulation; lack of night-time abatement; audible LFN; inaudible LFN/infrasound; tonal noise; electrical pollution/stray voltage; and visual impacts such as shadow flicker and flashing lights. Reference is made to research such as *Wind turbines and adverse health effects: Applying Bradford Hill's criteria for causation (*Dumbrille, McMurtry and Krogh; October 2021; www.environmentmed.org).

7.9.3.2 Overview of Baseline Environment
Whilst crofting is correctly highlighted, Crofting Law seems to have been ignored, especially the requirement to remove land from crofting tenure (via application to the Scottish Land Court) to facilitate onshore development.

7.9.6.1 Consultation
Highlands and Islands Enterprise and community landowners should be added to this list. The Crofting Commission could be a useful addition also. Lewis and Harris Riding Club may be a more relevant consultee than the British Horse Society.

7.9.6.2 Policy, Legislation and Guidance
There are a few documents that have been omitted, such as the Outer Hebrides Community Planning Partnership Local Outcomes Implementation Plan 2017-27, Islands Growth Deal, Comhairle nan Eilean Siar Corporate Plan 2022-27, Highlands and Islands Enterprise Strategy and Operating Plan 2023-28, community landowner strategic plans such as the Dalmore to Garynahine Community Plan and the Urras Oighreachd Ghabhsainn Strategic Plan.

7.10 Air Quality and Human Health
The Chapter on Air quality and Human Health appears to only be concerned with dust. Assessments should be carried out for other factors e.g. a comprehensive assessment of the possible Health effects on Humans of having such large wind turbines so close to a human population, with particular focus on low frequency noise and infrasound. The addition of a Stakeholder/Consultee from the field of human health is crucial to provide a complete picture of impact on Human Health.

There should also be an additional section in the Environmental Impact Assessment Report that would show the impact on local population. Public sector bodies such as CnES, HIE and Scottish Government have stated their aim to increase the population in areas such as the Westside of Lewis as well as increase the number of Gaelic speakers. The EIA should consider how this development will affect the population numbers and the Gaelic language. A survey of the residents affected by the development would be a way of gaining this information.

8.1 Climate
To provide a comprehensive assessment of environmental impact, an evaluation of the overall carbon footprint of N4 should be provided in the EIA. This estimate should provide a detailed breakdown of different contributors to the carbon footprint of N4, taking into consideration all phases of the project life cycle as well as any additional infrastructure that is necessary for N4 to be fully operational. Essential additional infrastructure requires the inclusion of the carbon footprint of the proposed SSEN Converter Station. It is necessary that the carbon footprints of N4 and the SSEN Converter Station (as described on p.39) are evaluated as a combined total given that N4 is dependent on this new Converter Station being built.
The overall carbon footprint of N4 will capture all elements of embodied energy including but not limited to:

- production/sourcing and transportation of materials for offshore and onshore infrastructure
- construction of required offshore and onshore infrastructure (including the SSEN Converter Station and undersea cable to the mainland)
- maintenance over the life cycle (reporting frequency at which turbines are to be maintained and fuel/method of transport used for the maintenance process)
- the possibility of increased embodied energy scenarios: whereby concrete mattressing is required for scour protection (p.25), inter-array cables (p.33) and export cables (p.34); whereby steel skirts for the Gravity Base Structure require the stated maximum base diameter of 80m (p.30); whereby three TJBs are required to house the interface joint between the offshore export cables and onshore cables for the maximum of three cables (p.32); whereby a helipad would be included (p.32)
- electrical and ancillary infrastructure associated with the onshore substation(s) compound(s) as listed on pages 38-39.
- Reverse Power Management (e.g. the use of diesel generators)

- Decommissioning at the end of the project

8.2 Socioeconomics

The scope of this chapter has been very curtailed. The socio-economic assessment could be improved by including qualitative elements, e.g., Sunday observance, as well as easily researched issues relating to the capacity of and limitations to connectivity and services on the island. These issues will be particularly important in the Construction and Decommissioning stages where an influx of temporary workers may have a significant impact on the socioeconomic stability of the island and general wellbeing of the population. Possible topics to consider in the scope: Ferry service availability, education, healthcare and other service provision, housing stock and rental market, demographics, Sunday observance, island and/or Gaelic cultural heritage and identity, arts, community wellbeing, traditional practices such as crofting, fishing, use of common grazing.

The Impact on all the Tourism Sector (e.g. Accommodation, Points of interest (Arnol Black House, Norse Mill, Gearannan, Callanish Stones etc), Surfing beaches) should be assessed as Tourism is one of if not the largest industry on the island and especially on the Westside of Lewis.

Possible methods & consultees:

- Consultation with community councils, Common Grazings committees, etc.
- Desk-based study of services, housing
- Consultation with the health board, education providers, CalMac
- Consultation with Outer Hebrides Tourism and survey those involved in Tourism.

8.2.3.1 Data Sources

Important sources of data have been omitted such as National Records of Scotland and the National Islands Plan Survey (Scottish Government), Highlands and Islands Enterprise, Outer Hebrides Community Planning Partnership, and the Western Isles Integrated Joint Board.

Bernera Community Council

From:	Madeleine Macaulay
To:	MD Marine Renewables
Subject:	Re: FW: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date:	23 January 2024 19:18:49
Attachments:	image002.png image004.png image009.png

Dear Kate,

Thanks for your e-mail. BCC have now met and we would like to pass on the following feedback:-

1. **Consultation with Bernera/West Side Community.** We have concerns that Bernera residents (and the West side residents as a whole) have not been adequately consulted or informed about these proposals. Westside residents were not asked if they agreed to host this industrial development on our coastline and it appears the only original consultation – which alleged support from the community - was held in Stornoway and was not widely advertised, with a very small number of responses in 2020. Residents were not made aware of the N4 project until the leases were already granted by Marine Scotland. The events that have been held by the applicant subsequently have made the project sound as if it is a foregone conclusion to go ahead, regardless how residents feel about it. The consultations so far have not been transparent and we note that as a community council the applicants have not invited us to events etc. or included us in correspondence. We have had only one meeting with CnES and the Northland Power rep. and this was in May 2022, and since there has been little correspondence from them. No information provided by the Landlord or Great Bernera Community Development Trust regarding the agreements they have made or the feedback they have supplied.
2. **Means of Consultation by Applicant.** We would highlight that many residents have limited internet access or prefer to receive correspondence by post/door to door, and many people are being excluded as a result. Consultation events that have been held by the applicant so far have been minimally advertised, via facebook, e-mail or with posters. When we are holding consultations locally as a community council, we make sure every resident receives letters/notices/invitations door to door and we do believe this is the only way to ensure everyone has a voice. The only door to door information that has been sent out to residents so far has been by local people to raise awareness, rather than the applicant.
3. **Community Benefit.** We have concerns that the 'community benefit' is tokenistic. The community benefit needs to be transformational and in proportion to the scale of these industrial scale proposals. Job creation and investment in the community must be meaningful and well thought through.
4. **Practicalities of the proposals.** At our recent community council meeting it was highlighted that the scoping report appears to use desktop survey information/data that does not appear to be accurate or underestimates the severity of the weather conditions on the west side where N4 development is

proposed. We advise that waves can reach over 100m in bad storms, which is far greater than the 60m suggested or the 20m recorded previously. We note that the North Atlantic sea swell will have a significant impact and other windfarm sites elsewhere on the Scottish coasts do not face these conditions. Likewise the bedrock on the ocean floor is granite – some of the oldest and most ancient rock in the world - and will be impractical to drill through.

5. Wildlife impact. Councillors noted that the mackerel landings are not accurately plotted (they are in the proposed area) and there is no mention of lobsters. The whales information is likewise based on reported tourist sightings rather than true data. The East side/Minch are popular whale spotting areas which is why they report higher numbers of whales and dolphins sightings; the water on the West coast is just as populated with whales and dolphins but goes unreported. Bernera is also home to rare golden eagles and sea eagles, which will be impacted – if not wiped out altogether - by the placement of turbines on the flight path. Wildlife is an important tourist attraction for Bernera and the West side and therefore the preservation of the local environment is a priority for local industry and residents.

6. Dark Skies. We understand the turbines will require red lights, which will change the night sky fundamentally locally along the coast. We do not even have street lights in many coastal villages and therefore the impact of these turbines in terms of light pollution will be significant. The night sky is an important attraction for tourists, which will again be impacted by these proposals.

7. Unknown impact for residents. The issue of noise was raised at the meeting with CnES and the Northland Power rep. in May 2022. The Northland rep. was unable to provide any information, other than to say that other turbine sites in the world have more trees which helps muffle the noise. The rep. actually laughed as she noted we do not have many trees on the west side. This did not inspire confidence that the applicant cares or has taken into account the impact this development will have on residents.

We urge those making decisions to consider the human and environmental impact of placing an industrial scale turbine site so close to shore on one of the most remote, unspoilt parts of the country.

I would be grateful if you can confirm that our response has been received and our comments will be incorporated into the scoping opinion.

Kind regards,
Bernera Community Council

On Wed, 10 Jan 2024 at 09:43, <MD.MarineRenewables@gov.scot> wrote:

Breasclete Community Council

From:	Breasclete Community Council
To:	MD Marine Renewables
Subject:	Re: FW: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date:	20 December 2023 11:34:37
Attachments:	image001.png image003.png image004.png image004.png

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We submitted a joint response along with Urras Oighreachd Chàrlabaigh and Carloway Community Council

BT Radio Network Protection

From: radionetworkprotection@bt.com
To: MD Marine Renewables
Subject: WID13238 - SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date: 23 November 2023 12:14:57
Attachments: image001.png
image003.png
image006.png
image007.png
image009.png
image010.png
image002.png
image012.png
image013.png
image014.png

OUR REF:- WID13238

Good afternoon Kate

Thank you for your email dated 16/11/2023

We have studied the grid-ref 140579/931791 representing the centre point of the Grid Substation AoS near Stornoway with respect to EMC and related problems to BT point-to-point microwave radio links.
The conclusion is that the development of this sub-station should not cause interference to BT's current and presently planned radio network.

However, the developer states that the grid-ref's may not represent the final location, therefore if they do change, please inform us so we can re-assess.

Kind Regards
Chris

From: MD.MarineRenewables@gov.scot <MD.MarineRenewables@gov.scot>
Sent: Thursday, November 16, 2023 1:40 PM

From: radionetworkprotection@bt.com
To: MD Marine Renewables
Subject: RE: WID13238 - SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date: 23 November 2023 12:16:09
Attachments: image001.png
image007.png
image008.png
image010.png
image011.png
image002.png
image003.png
image005.png
image006.png

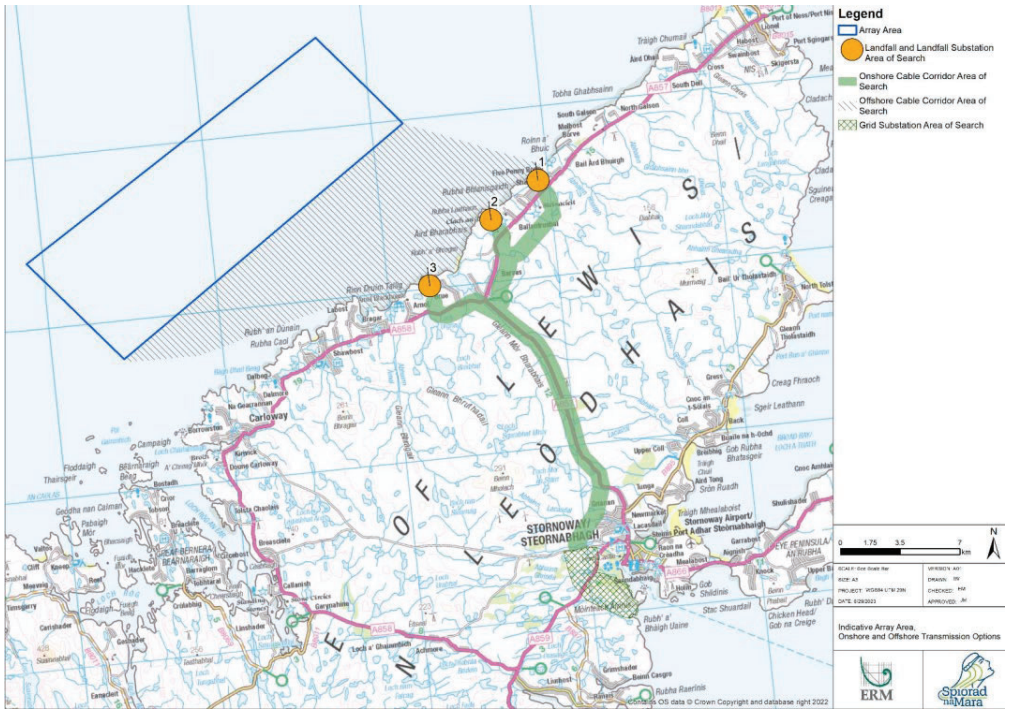
Hi Kate

Thank you for your reply

I can see on table 2.8-2 that the proposed substations are up to 20m in height, dependent upon the final locations, there could possibly be an issue with BT fixed links.

From reading the scoping report it seems that the onshore cable to grid-substation near Stornoway will not be linked via overhead cables.
If this is the case then the only on-shore structures of height will be the substations.
Until we know the exact locations of any proposed sub-stations then it's very difficult to assess.
Please see below the screen-grabs showing the 38 positions from the Simplified Landfall Sub-Areas you provided earlier, in relation to our existing fixed BT links

Regards
Chris


Legend
Array Area
Landfall and Landfall Substation Area of Search
Onshore Cable Corridor Area of Search
Offshore Cable Corridor Area of Search
Grid Substation Area of Search
1
2
3
ISLE OF LEWIS
NORTH LEWIS
STORNOWAY / STEORNABHAGH
Carloway
0 1.75 3.5 7 km
N
Indicative Array Area,
Onshore and Offshore Transmission Options
ERM
Spiorad na Mara
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Carloway Estate Trust

Spiorad na Mara – Scoping Report Response

Response from Urras Oighreachd Chàrlabhaigh (in consultation with Breasclete Community Council)

General Comments

Urras Oighreachd Chàrlabhaigh would like to express the not insignificant concern of many in the local community of the location of the proposed development and in particular its proximity to shore and communities. The impact of the proposed development on these communities must be properly understood and considered. Efforts should be made to reduce the impact of the development on these communities. If the development does go ahead a significant community benefit package must be put in place for the most affected communities in the West of Lewis. This package should reflect the scale and impact of the project.

1.4 Project Overview / 2.2 Project Scope

The drastic change in the location of the development from the zones initially indicated in the Sectoral Marine Plan is concerning. It is unclear how the positioning of the area of search much closer to shore was arrived at. As a consequence of the location of the proposed development visual impact of the development will be significant. The height and number of turbines, combined with their proximity to shore will all contribute to the impact on the nearby communities. Visualisations from specific viewpoints and viewsheds should be used to inform turbine positioning to minimize impacts. Particular attention should be placed to sites of cultural significance such as Gearranan Blackhouse Village, Calanais Stones (and associated sites) and Doune Carloway Broch.

1.6 Consenting Strategy / 3.4 Planning Legislation

The proposed consenting approach via single application for offshore and on shore elements of the project bypassing local planning could lead to less local input in the planning process. Given the scale and potential impacts of elements of the proposed onshore infrastructure this approach should be further scrutinised.

2.8.1 Onshore Export Cables and Associated Infrastructure

All cables should be undergrounded, pylons and associated infrastructure would not be appropriate.

5.2 Stakeholder Identification

Additional stakeholders that should be included are Highlands and Islands Enterprise, Community Councils, community landowners and where appropriate grazings committees.

6.9.3.5 Salmon and Sea Trout

The area of the proposed development is understood to be a route for migratory salmon and sea trout. Both smolts leaving rivers (including the Carloway River, which Urras Oighreachd Chàrlabhaigh manages) and returning adult salmon and sea trout likely pass through the area at different times of the year. It is important that careful consideration is given to any potential impacts on these increasingly threatened and economically important species. Studies of fish behaviour should be commissioned, and it is recommended that the developer engages with the Outer Hebrides Fisheries Trust on this.

6.9.6.2 Consultation

The Western Isles Fisherman's Association appears to have been omitted from the list of consultees. Engagement with the fishing industry is important.

7.8.5.1 Likely Significant Effects

Table 7.8-2 appears to omit any reference to risks to human receptors leading to adverse health effects. These can include sleep disorders, headaches, mood disorders, inability to concentrate, tinnitus, effects on vestibular (balance) and heart, and vibratory sensations. Causes have been proposed such as amplitude modulation; lack of night-time abatement; audible LFN; inaudible LFN/infrasound; tonal noise; electrical pollution/stray voltage; and visual impacts such as shadow flicker and flashing lights. Reference is made to research such as *Wind turbines and adverse health effects: Applying Bradford Hill's criteria for causation (*Dumbrille, McMurtry and Krogh; October 2021; www.environmentmed.org).

7.9.3.2 Overview of Baseline Environment

Crofting is correctly identified as an important local consideration. Impacts of the project on crofting practices should be considered. Consideration should also be given to how crofting regulation will impact access to land for the onshore elements of the project, the stakeholders involved and the process to remove land from crofting tenure via application to the Scottish Land Court.

7.9.6.1 Consultation

Highlands and Islands Enterprise and community landowners should be added to this list. The Crofting Commission could be a useful addition also.

7.9.6.2 Policy, Legislation and Guidance

There are a number of documents that have been omitted, such as the Outer Hebrides Community Planning Partnership Local Outcomes Implementation Plan 2017-27, Islands Growth Deal, Comhairle nan Eilean Siar Corporate Plan 2022-27, Highlands and Islands Enterprise Strategy and Operating Plan 2023-28, community landowner strategic plans such as the Dalmore to Garynahine Community Plan and the Urras Oighreachd Ghabhsainn Strategic Plan.

7.9.6.3 Assessment Methodology

Important that assessment on impact on visitor market includes gathering of new data on perceptions from real visitors, relying on existing information will not allow for meaningful analysis of potential impacts.

8.2.3.1 Data Sources

Important sources of data have been omitted such as National Records of Scotland and the National Islands Plan Survey (Scottish Government), Highlands and Islands Enterprise, Outer Hebrides Community Planning Partnership and the Western Isles Integrated Joint Board.

Additional Comments

- Projected carbon auditing of the project should be produced, demonstrating the proposed carbon outlay and payback period.
- Consideration throughout should be given to the impact on local infrastructure and supply chains, including impact of disruption to the local employment market.

Chamber of Shipping

From:	Robert Merrylees
To:	MD Marine Renewables
Subject:	RE: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date:	19 October 2023 15:31:00
Attachments:	image001.png image004.png

Dear Marine Scotland,

Thank you for sharing the Scoping Report for the abovementioned wind farm off the Isle of Lewis.

The UK Chamber of Shipping welcomes the opportunity to respond and has reviewed the sections of the Scoping Report of relevance and import to it, namely Chapter 2 and Chapter 6 Section 10 – Shipping and Navigation. Therefore, the Chamber offers comment on these areas specifically.

At 2.9.3.1 when discussing the offshore decommissioning phase in relation on cabling:

> *The decommissioning options for the cables and subsurface foundation infrastructure will be discussed with stakeholders and regulators, however, sections may be left in situ to avoid unnecessarily disturbing the seabed.*

The Chamber strongly advocates that when the OWF is to be fully decommissioned, there should be the full removal of all infrastructure above and below the seabed, acknowledging BATNEEC when it comes to turbine foundations which penetrate deep into the seabed. This explicitly includes inter array and export cables for the following reasons.

Firstly, the Chamber has concerns that buried cables left in situ may become exposed and therefore pose a hazard to anchoring activity, especially in an emergency when such activity is most likely to take place. This has been highlighted by the International Hydrographic Organization (IHO) who at their Assembly meeting held at Monaco in April 2017 highlighted:

> *"Mariners are also warned that the seafloor where cables were originally buried may have changed and cables become exposed; therefore particular caution should be taken when operating vessels in areas where submarine cables exist especially where the depth of water means that there is a limited under-keel clearance"*

Such risk is minimised during the economic life of the wind farm, as navigational traffic through the development will be reduced and it is expected that regular monitoring of the cabling and its protection will be carried out with any necessary remedial works. However once decommissioned, the site will be open to a greater extent to surface navigation and other activity. The Chamber is not aware of commitments by developers post commissioning to regularly monitor and rebury or remove cabling which has become exposed.

Secondly, it is widely recognised that ships' anchors pose a significant hazard to submarine cables as they are designed to penetrate the seabed. The depth of penetration will depend on the size and type of anchor and the nature of the seabed. Hence, the Chamber is concerned that cable burial at typical depths does not fully safeguard against anchor fouling and entanglement.

This was exemplified through the incident of the Stema Barge II incident in the English Channel when emergency anchoring led to the IFA interconnector being fouled and cut though. Passing the cost of potential fouling and disentanglement to the shipping company, authorities, insurers and any Search and Rescue (SAR) services required, is not acceptable nor desirable.

Thirdly, through the leaving of cabling in situ, future seabed activity in the area is significantly constrained, either rendered unfeasible, or costly for the next seabed user to remove or work around such abandoned cabling.

At 6.10.2 a study area of 10nm is considered. This is acceptable from the Chamber's perspective and industry standard. The Chamber however wishes to see a 50nm routeing area study for cumulative impacts also considered. This is similarly industry standard for large projects such as this as provides for wider impact analysis of the development. The Chamber acknowledges that this routeing area study need only to include AIS traffic from a commercial navigation standpoint.

The Chamber has safety concerns with interference and visual impediment of Aird Laimishader Lighthouse, which has a rated visibility of 8nm, from the many OWF structures, given their greater height and lighting, which will result in "visual clutter" for mariners. The Chamber wishes to see analysis into the impact of and mitigation measures considered for safety of navigation.

The Summer 2022 AIS data shows cargo traffic passing inshore of the proposed development and the Isle of Lewis. The Chamber wishes to see further analysis of these routes, the safety of navigation from the "channel" between the Isle and development which would remain, and potential anchoring activity in the bay. There is a failure to fully identify all anchorages, including two additional anchorages in Loch Roag and Loch Carloway, which are clearly visible on third party charts and need consideration.

The colour coding of the vessel tracks are not consistent between Summer and Winter 2022 which is frustrating and difficult for stakeholders to correctly respond. The Chamber wishes to see consistent colour coding for future analysis.

At 6.10.3 it is identified that there may be the occasional jack up or semi-submersible rig move by tug and anchor handler vessels. These are safety critical and important navigational movements, and the Chamber wishes to see careful longer term analysis of this type of navigation, in particular recognising that a rig stranding occurred in Lewis in the last 10 years at considerable cost and consequence.

Regarding 6.10.6.1 Relevant Data Sources, the Chamber wishes to see a full 12 months of AIS data for a longer term vessel traffic survey, in particular to consider adverse weather and any rig moves that may be captured. The proposed 2 x 14 day full surveys are inadequate given the area in question.

The Chamber is aware that the MAIB have spatial accident data extending back to 1992 and is of the view that for long term projects such as offshore wind farms, examining 10 years of accident data is not truly representative of trends and historic incidents. As such the Chamber recommends that 20 years of MAIB spatial accident data be included in the EIA baseline. This request the Chamber is making to all prospective developments and is being met with general

agreement.

The Chamber otherwise finds the Scoping Report to contain what it would hope for and expect in terms of the data and methodology employed.

The Chamber looks forward to early engagement with the development as the planning and consenting process continues.

Should you wish for further detail or clarification on any of the above points, please do not hesitate to get in touch.

Kind regards,
Robert

Robert Merrylees
Policy Manager (Safety & Nautical) & Analyst

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Comhairle nan Eilean Siar

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Email: planning@cne-siar.gov.uk
Date: 18 December 2023

Issued by email only to MD.MarineRenewables@gov.scot
Licensing Operations Team,
Marine Directorate
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AB11 9DB

FAO of Kate

Dear Sirs

PLANNING REFERENCE 23/00453
SCOPING OPINION RESPONSE COMMENTS BY COMHAIRLE NAN EILEAN SIAR
SPIORAID NA MARA WINDFARM, ISLE OF LEWIS – ONSHORE AND OFFSHORE COMPONENTS

MD reference number:	**SCOP-0032**
CnES reference number:	**23/00453/MLCON**
Proposal:	**Spiorad na Mara Offshore Windfarm**
Location:	**Isle of Lewis**

I refer to the request dated 19 October 2023 seeking the comments of Comhairle nan Eilean Siar as Planning Authority on the Scoping Report prepared in relation to the above project.

The Scoping Report dated 27 September 2023 is comprised of 627 pages, covers both the offshore and on-shore components of the windfarm and is supported by Appendix A - Blade tip ZTV with Key Visual Receptors and Proposed Viewpoints (A3 extracts with 1:50,000 Ordnance Survey base mapping) (5 pages)

A number of service departments of Comhairle nan Eilean Siar has been consulted internally in order to inform the response to the consultation on the Scoping Report.

At the date of response Comhairle nan Eilean Siar had no sight of the advice of other consultation bodies

General Comment:
The proposed study area is described in Section 2.2 of the Scoping Report.

There are two options being assessed by the Project, Option 1 with a Landfall substation design and Option 2 with an Offshore Substation design.

Both options provide for an array comprised of up to 66 WTGs (each comprising a tower section, nacelle and 3 rotor blades, and associated support structures and foundations); array cables, 2-3 onshore export cables from the west side of Lewis across the Arnish Moor (underground, overhead (scale unknown), or a mix of each), a Grid substation (wide area of search) near the SSEN convertor station and export cables from the grid substation to the SSEN convertor station. The other main variable is 1-3 Offshore Substation Platforms versus 1 Onshore Landfall Substation sited on the west coast of Lewis (three potential landfall locations).

The scoping report is extensive and presents a great many variables. Therefore, while acknowledging the need to ensure the Project Design (Rochdale) Envelope (PDE) approach is adopted, the options make it challenging to respond with detailed comments to some aspects of the proposal. It is noted that further refinements will be carried out through the EIA and consultation processes, including further site selection work, surveys and environmental studies and commercial and community discussions.

We advise that the design variables must be reduced to a minimum and the scope of the project more defined, ahead of any application for planning permission.

CHAPTER 3 – POLICY AND LEGISLATION

Development Plan and Marine Planning advise as follows in relation to policy:

National Development Context

The Scottish Government's Offshore Wind policy Statement (October 2020), set out an ambition to achieve 8-11 GW of offshore wind in Scottish waters by 2030. The recent Draft Energy Statement states the Government are 'consulting on setting a further offshore deployment ambition'.

In April 2022, UK Government's Energy Security Strategy announced updated targets for offshore wind, increasing them to 5OGW (previously 40GW in the Net Zero Strategy, Oct 2021), and up to 5GW off innovative floating wind (previously 1GW) by 2030 (conventionally offshore turbines are set on fixed structures on the seabed, which limits their deployment to shallower waters). The first round of Clean Energy Supply (CES) agreements (Scot Wind) was announced in 2022, with 20 projects given option agreements. If every project was developed to full potential they would result In 2.76GW of wind energy capacity. The option agreements grant developers access to specific areas of the seabed, although successful applicants will still have to go through other planning processes and many will seek to secure a UK government subsidy contract, Contract for Difference (CfD) before development could proceed.

National Planning Policy Context

There is currently no Regional Marine Plan in place in the Outer Hebrides 'Scottish Marine Region', Where there is no Regional Marine Plan the National Marine Plan (2015)(NMP) applies. The NMP has a presumption in favour of sustainable development and the use of the marine environment when it is consistent with its policies and objectives. The NMP recognises that development of

growth sectors, including renewable energy activities is particularly important in more remote areas of Scotland and that the use of the marine environment can provide multiple economic benefits at both a community and national level. The Scottish Government is at an early stage of developing NMP 2.

In developing the proposal and preparing the EIA Report, regard should be afforded to the relevant provisions of Scotland's National Planning Framework 4 now incorporating Scottish Planning Policy, which sets out how the Scottish Government's approach to planning and development will help to achieve a net zero, sustainable Scotland by 2045 and includes 33 national planning policies as well as other relevant national policy guidance and the provisions of the Outer Hebrides Local Development Plan, the Outer Hebrides Wind Energy Development Supplementary Guidance and other material planning policy considerations.

NPF4 at national and local levels

In February 2023 Scottish Government adopted new national planning policy in the form of the National Planning Framework 4 which forms part of the statutory Development Plan.

The principal policy against which the development proposal we be assessed is NPF Policy 11: Energy where the policy intent is to encourage, promote and facilitate all forms of renewable energy development onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution Infrastructure and emerging low carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS).

Other relevant NPF policies which the development proposal will be assessed against include:

NPF4 Policy 1: Tackling the climate and nature crises;
NPF4 Policy 2: Climate mitigation and adaptation;
NPF4 Policy 3: Biodiversity;
NPF4 Policy 4: Natural places;
NPF4 Policy 5: Soils;
NPF4 Policy 6: Forestry, woodland and trees:
NPF4 Policy 7: Historic assets and places;
NPF4 Policy 10: Coastal development;
NPF4 Policy 12: Zero Waste;
NPF4 Policy 14: Design, quality and place
NPF4 Policy 22: Flood risk and water management;
NPF4 Policy 23: Health and safety
NPF4 Policy 25: Community Wealth Building
NPF4 Policy 26: Business and Industry
NPF4 Policy 29: Rural Development
NPF4 Policy 32: Aquaculture

Outer Hebrides Local Development Plan

The development will be assessed against the Outer Hebrides Local Development Plan, in this case principally Policy EI 8: Energy and Heat Resources and Policies DS1 Development Strategy; Policy

PD1 Placemaking and Design; PD2: Car Parking and Roads Layout; PD4: Zero and Low Carbon Buildings; ED4 Fish Farming and Marine Planning; El 4 Waste Management and ED5: Minerals and EI 5: Soils.

This development proposal will be assessed against the Development Policies for wind farms in the Wind Energy Supplementary Guidance:

- Economic Impacts and Benefits
- landscape and Visual Impact
- Aviation and Defence
- Noise
- Community Amenity
- Neighbouring Developments
- Historic Resources
- Natural Heritage
- Peat and Soil Resources
- Water Resources
- Borrow Pits
- Repowering
- Planning Obligations
- Decommissioning
- Cumulative Impacts
- Radar Impact

OFFSHORE CHAPTERS

6.1 Physical and Coastal Processes
6.2 Underwater Noise
6.3 Marine Sediment and Water Quality
6.4 Benthic and Intertidal Ecology

Comhairle nan Eilean Siar defer to the advice of Marine Scotland Science, SEPA and Nature Scot in relation to the above chapters. CnES has no comments to make.

6.5 Fish and Shellfish Ecology

6.5.7 Scoping Questions for Consultees Scoping questions for consultees in relation to Fish and Shellfish Ecology

CnES Primary Industries has reviewed the Scoping Report and responded as follows:

1. Do you agree that the data sources identified are sufficient to inform the Fish and Shellfish Ecology baseline for the EIA (including potential observations from other relevant surveys)?
Yes. With further studies into the fish and shellfish ecology through catch return forms from all fishing vessels in the area plus the Stornoway Sea angling club records of all fish species caught and the number in all their competitions this would be useful primary information of the catchable stocks in the area. However further marine surveys in the area will be required to fully identify the fish and shellfish ecology that is present.

2. Have all Fish and Shellfish Ecology receptors and potential likely significant effects that could result from the Project been identified?
More Primary research is needed to identify the type and volume of fish and shellfish in the area.

3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Fish and Shellfish Ecology?
Invasive Non-native Species (INNS) should not be scoped out as there is a high risk of this even with control measures. Ghost fishing can be scoped out if mooring lines are not to be used however if fishing is allowed to be carried out in the cable array areas and mooring lines and anchors are needed to be used here then it should be scoped in.

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Fish and Shellfish Ecology receptors?
There is no relevant embedded mitigation for *permanent seabed habitat loss and/or disturbance,* this would be obviously be very damaging to many users and stakeholders in the area and should be have further mitigation measures in place to avoid this.

Note: Page 188, ' *Other salmonid species such as brown trout (also known as sea trout)*', Note: brown trout and sea trout are completely different species of fish with different habitats and behavioural patterns.
Other salmonid species such as brown trout (also known as sea trout), and Arctic charr have been recorded within the Fish and Shellfish Ecology Study Area, however these species are not designated features within the region despite being listed as UK BAP Priority Fish Species.
Note: All four species (salmon, brown trout, sea trout and Artic charr) discussed are present in the seas surrounding the development.

6.6 Marine Mammals and Other Megafauna
6.7 Marine and Nearshore Ornithology

Comhairle nan Eilean Siar defer to the advice of Marine Scotland Science, SEPA and Nature Scot in relation to the above. CnES has no comments to make.

6.8 Marine Archaeology and Cultural Heritage.
The CnES Archaeology Service has reviewed and commented as follows upon Archaeology and Cultural Heritage – Offshore – Chapter 6.8

This chapter provides an overview of the Late Palaeolithic and Early Holocene environmental processes on the land mass of the island including variations in sea-level and how this may be represented in terms of potential archaeological deposits. Types of archaeological sites considered range from former terrestrial settlement evidence now submerged or within the tidal zone, to shipwrecks and aircraft crash sites. It is important that the potential for paleoenvironmental deposits is also considered. In reviewing this chapter, it was noted that there was no inclusion of unexploded ordnance (UXO's); given the location of the Isle of Lewis within the Atlantic Approaches and also the proximity of the South Uist Test Range, there is a potential for material associated with aircraft of sea going vessels to be encountered.

Issues regarding setting in relation to submerged assets is proposed to be scoped out further assessment. Impacts to onshore assets from offshore infrastructure will be included within Chapter 7 for Onshore Archaeology and Cultural Heritage and includes the tidal zone to MLWS.
Potential effects from construction and decommissioning's are identified and appropriate mitigation measures are presented in section 6.8.4 Embedded Mitigation. The intent of this phase of the project will be avoidance of identified sites and management via exclusion zones, areas of archaeological interest or by micro siting as well as considerations of impacts from hydrodynamic actions. A program of archaeological works with agreed Written Scheme(s) of Investigation (WSI) will be in place during the project and will include geophysical/ geotechnical survey and analysis; this will further inform other appropriate archaeological mitigation strategies, as necessary. All WSI's must include a generic reference to post excavation research design (PERD). This phase of works will also have in place a Protocol of Archaeological Discoveries (PAD) which will respond to all other discoveries identified outside of the embedded mitigation strategies previously noted. It will be useful to specify timeframes for anticipated consultation and reporting. Additionally, the management role of the project archaeologist should be specified; an example of which could be an Archaeological Clerk of Works (ACOW).

The assessment methodology for the Marine and Cultural Heritage phase of the project is considered appropriate.
Scoping Questions for Consultees.
1. Yes.
2. Yes.
3. None are known.
4. Inclusion of UXO potential.

6.9 Commercial Fisheries
The CnES Economic Development Officer (Primary Industries) has reviewed and commented upon this Chapter.

6.9.2 - Study area
Rectangle 46E2 has been omitted as it does not adequately capture the characteristics of both coastal and offshore settings. Moreover, its distance of over 10 km from the Array Area means that it does not offer sufficient additional information to the baseline above that provided by rectangles 45E2 and 46E3.
It would be valuable to have included 46.E2 as the southern most corner of the rectangle is still within close proximity to the development and represents fishing grounds within close proximity to the development.

6.9.3.3 . Landings Value and Effort by Species

Due to the exposed position of the Array Area and Offshore Cable Corridor Area of Search and fishing restrictions imposed under the Bragar to Dell protected area, these vessels are restricted to activity in the majority of the area between the 1st April and 31st October20

Comment: restrictions of fishing in this area are more specific and permitted between the 1st of April to the 31st of October (the summer months). The restrictions that do apply are detailed in the legislation below:

https://www.legislation.gov.uk/ssi/2017/48/made

Prohibited methods of fishing in the Bragar to Dell Protected Area

5.—*(1) Fishing for any species of sea fish with a creel or parlour creel is prohibited in the Bragar to Dell Protected Area between—*
(a)1st January and 31st March in each year (both dates inclusive); and
(b)1st November and 31st December in each year (both dates inclusive).
(2) In this article, "Bragar to Dell Protected Area" means the area described in schedule 3.

In order to gain a proper and full understanding of the commercial fisheries in the area under 10m vessels must be included in the study. VMS only gives information on over 15m vessels in the study areas. This is not truly representative of the fishing fleet in the area and therefore statistic that are gathered as much as they are accurate, they do not accurately reflect the overall activity in the area and will not identify the true extent of commercial fishing industry in the study area.

Note: All static gear vessels operating in the area would have been completing FISH 1 Forms which would have been returned to the Stornoway Fishery Office. However, prior to 2019 vessels only indicated the ICES Block fished, those Blocks covered an area 30 miles by 30 miles and do not provide any accurate information on commercial fishing activity in the proposed area. Since 2019 vessels enter the daily Latitude /Longitude position of where they commence their fishing operations and the Latitude/Longitude position of where they conclude their fishing operation. Marine Scotland commenced an inshore pilot pot limitation scheme in the Minch with up to 40 vessels fitted with a low cost tracking device. However, none of the vessels that fish within the proposed search area fish within the pilot area, therefore, there is no accurate information as to the economic importance of the identified Spiorad Na Mara area.

The Comhairle nan Eilean Siar (Comhairle nan Eilean Siar, 2017) reports the most significant change in the fleet composition of the Western Isles, over the past decade, has been the decline in the number of vessels in the 10-15 m category, which reflects the changing economics of the inshore fisheries sector. Decommissioning of larger vessels has resulted in retirements within the sector, and 'trading down' to smaller vessels with lower associated costs. Similarly, due to the high costs of fishing vessels and licences for quota species, incomers to the industry are mostly in the under 10 m sector. Vessels under 10 m are not required to submit their landing statistics; therefore they are likely to be underreported in the Marine Directorate (2020a) data, which show equal landings across both vessel size classes within ICES rectangle 45E3, and vessels greater than 10 m dominating landings within ICES rectangles 45E2 and 46E3 (Figure 6.9-9). At the time of writing, UK Government data for vessels under 10 m in length show 55 vessels with Stornoway registered as their home port. Only 4 of these are not registered with a shellfish licence (MMO, 2023).
This statement is correct and therefore acknowledging that the composition of the fleet in the Western Isles is in the under 10m category. An amendment to data collection and the study parameters should be made.

6.9.3.5 Salmon and Sea Trout

There are no commercial fishing licences issued for these species. However local fisheries/ sporting estates rely on these fish. Populations are likely to exist in close proximity to the

development given the vast areas these species move and feed in. Further studies and modelling of effects and impact should be conducted alongside communication and liaison with these fisheries and estates.

6.9.5 Summary of Key Receptors, Sensitivities and Potential Likely Significant Effects (page 306)
Adverse effects on commercial fish and shellfish populations-Increased underwater noise, and increased anthropogenic activity disturbing mobile species, and potential direct damage to sessile species.

This area is known as having a very diverse range of marine life including fish and shellfish species. One possible method to mitigate any losses or adverse effects over and above stringent environmental procedures would be to implement and or support restocking programs. This has been implemented by other developers for example the dogger bank farm and the Whitby lobster hatchery.
https://doggerbank.com/community-news/dogger-bank-wind-farm-extends-its-support-for-whitby-lobster-hatchery/

There is also a very productive high value flat fish bank beyond the development site that has potential to be adversely affected. Mitigation should be explored including potential restock species such as turbot and or Halibut.

Fishing activity is currently obliged to operate in an increasingly crowded marine space. WTG's and the network of cables have potential to impede fishing.

Any wind farm sited on fishing grounds will inevitably impede fishing to some extent, as will associated installation and maintenance activities, comparative to an open sea state. For co-existence of the fishing fleet in the area and avoid significant displacement additional information would be required. While static gear vessels could be compatible with the proposed development, other forms of fishing activity will not be. A marine plan with compatible activities and location planning for any exclusions would be beneficial as would closer collaboration with local fishery groups such as the OHIFG and WIFA.

Turbine spacing and layout, are the main determinants of whether fishing activities can co-exist with such developments. Due to the MCA requiring two lines of orientation to assist navigation through wind farms sites, more collaboration between current shipping activities, other vessels and the MCA would potentially allow and promote co-existence here.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/502021/MGN_543.pdf

The cable corridor area would be of most concern to the fishing fleet currently operating in the development area. Given the large amount of hard rock making up the seabed in the area trenching or burying the cables has potential to be a challenging task. If concrete mattresses were to be used to cover the cables that would be more suitable for allowing fishing activities to take place in the area. Designing a limited number of crossings between turbines and rows and bundling cables in a T shape from the development into a narrow corridor to land would also reduce the area impacted. Also avoiding using any mooring lines and anchors could increase the possibility of co-existence. If the cables were routed into one central point and run to land in one narrow corridor this could keep cables out of harms way from interactions with fishing gear as

only one fairly narrow corridor could be identified as an exclusion zone or carefully mapped obstruction area. Careful engineering and risk management would reduce the potential for incidents occurring at this stage.

The area where the turbines will be located is fished mostly for lobster and crab using fleets of pots which are set in fleets of 50 – 100 pots with marker buoys at each end. Pots are usually spaced 20 – 25 metres apart, providing estimated distance between each marker buoy. Floating ropes are of 12 mm diameter is used in the backline between pots.

Brown crab are nomadic travelling into shallower waters in the summer months, returning to the deeper offshore grounds in the winter months. Lobster remain more localised to their rocky grounds and any permanent creel prohibition areas would result in a significant negative impact on static gear operations.

The cable corridors areas between the turbines and the shore are some of the most prolific lobster grounds in Scotland, with catch per unit effort amongst the highest recorded anywhere during the period from July – September.

Any cables would have to be buried or covered to ensure that there was no entanglement with either ropes or pots.

Previous developers that had considered wave machines off Barvas had agreed that they would fund lobster stock enhancement programmes to mitigate against any losses incurred by local static gear vessels.

In addition, developers should consider scallop enhancement programmes in the Loch Roag area, to offer local fishermen an alternative fishery using pots with lights that are currently being developed in other regions of the UK.

The MCA advises to minimise the risk of entanglement and possible vessel capsize fishing should not be conducted inside 0.25 nautical miles from a subsea cable. Therefore, depending on the cable layout and routing this could preclude all fishing in the array area and offshore corridor area.

https://www.gov.uk/government/publications/mgn-661-mf-navigation-safe-and-responsible-anchoring-and-fishing-practices

Another issue that requires further clarity is the legal position of fishing in and around cables as they are legally protected by law from damage or culpable negligence. Therefore the fishing fleet around the area would need reassurance that there would be insurance indemnity and systems in place to manage liabilities suitable for an array and cable area of this size and scale. This could be further addressed in (6.18 Page 309). If co-existence cannot be achieved the affected fishing communities should not be have to bear the resulting costs and losses and compensation for the permanent and or temporary loss of access to fishing grounds must be made.

In Table 6.9-4 *Preliminary list of consultees*, The Western Isles Fisherman's Association should be added to the list alongside the Stornoway Sea Angling Club that run a commercial charter vessel and spend most of their year in the area fishing at least once a week.

There is also a large number of recreational sea anglers with their own pleasure boats that fish in the area as it is known for its fish numbers and variety. They may not be in the local harbours around the site Carloway, Kirkibost, Breasclete etc but trailer them to these areas. They would need to be consulted also as there is few if any areas as rich for sea angling as the development area is.

6.9.7 Scoping Questions for Consultees

Scoping questions for consultees in relation to commercial fisheries include:

1. Do you agree that the data sources identified are sufficient to inform the Commercial Fisheries baseline for the EIA (and therefore that no further baseline data collection is merited)?

No. Under 10m data must be included to fully and accurately inform the assessment of all the commercial activity in the area. VMS data is only relevant to vessels over 15m so a large number of commercial vessels in the area aren't represented by this data.

2. Have all Commercial Fisheries receptors and potential likely significant effects that could result from the Project been identified?

Also include a study into non-native species that could damage the commercial fishing industry through vessels ballast water and structures being introduced to the area from Foreign waters.

3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Commercial Fisheries?

Yes. More relevant and up to date information would be gathered from local fishing representatives and vessel owners working in the area.

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on Commercial Fisheries receptors?

On the whole yes but more information will be required here on the project layout and cable array.

5. Are there any additional stakeholders who should be consulted?

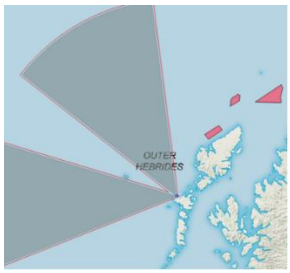
Western Isles Fisherman's Association
Stornoway Sea Angling Club

6.10 Shipping and Navigation

CnES Harbours were invited to review but have offered no comment.

6:11 Military and Civil Aviation

CnES Spaceport 1 – project team reviewed and responded as follows:
There is no spatial overlap between the Space Launch Hazard Area (SLHA) or the cable route. Map below shows the Scotwind Leasing Round and the SLHA.



6.12 Offshore Infrastructure, Other Sea Users, Tourism and Recreation

The CnES Economic Development Officer (Primary Industries) has reviewed and commented upon this Chapter.

On Page 361 the statement "*High value sea angling tours for wild salmon are run from Stornoway harbour and take place around the Outer Hebrides (Outer Hebrides Tourism Board, 2023)*".

This is incorrect. There is no sea angling for wild salmon in the Western Isles. Salmon is fished for in freshwater systems and occasional saltwater estuaries from the shore but no tours are run out of Stornoway harbour for sea angling targeting wild salmon.

"Although outside of the Offshore Infrastructure, Other Sea Users, Tourism and Recreation Study Area, salmon migration routes will be considered by the project and findings on any impact on catch rate will be considered. Chapter 6.9: Commercial Fisheries of this Scoping Report provides a review of the impacts on wild salmon fishing activity.

The Barvas Estate would be one of the main sporting estates affected as they control the fishing rights for the Barvas system as well as Arnol, and Garrynahine all of which see good number of salmon and sea trout each year. The Carloway system is owned and controlled by the community and have a regular run of salmon and they should be consulted here too. Other sporting estates will have fish that will run past the development site as well and should be considered further.

6.12.7 Scoping Questions for Consultees

1. Do you agree that the data sources identified are sufficient to inform the Offshore Infrastructure, Other Sea Users, Tourism and Recreation baseline for the EIA (and therefore that no further baseline data collection is merited)?

Figure 6.12-3 Average weekly density of recreational vessels, 2012-2017. Is up to date information available.? On page 360, "*Low activity levels of sea angling are associated with the Offshore Development Area of Search."*

Recreational Sea angling boats as well as Stornoway Sea Angling Club fish in the area during the summer and autumn months. The Sea Angling Club fishes in the development area weekly with up to 10 to 12 paying anglers onboard.

2. Have all Offshore Infrastructure, Other Sea Users, Tourism and Recreation receptors and potential likely significant effects that could result from the Project been identified?

More work and information needs to be conducted on loss of these grounds to recreational users. Mitigation could include hatcheries or fisheries development programmes to stock alternative grounds and limit losses to sporting estates.

3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Offshore Infrastructure, Other Sea Users, Tourism and Recreation?

On the whole yes but more engagement with recreational stakeholders using the area should be undertaken.

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Offshore Infrastructure, Other Sea Users, Tourism and Recreation receptors?

Re seeding and hatchery programmes should be included in the study to mitigate loss of fish species and loss of fishing grounds to the tourism and recreational sector.

6.13 Seascape, Landscape and Visual Impact Assessment (Offshore)

Development Plans and Marine Planning has reviewed this Chapter and commented as follows:

In **Table 6.13-2** of the Scoping Report, the Developer has provided a list of Viewpoints based upon seascape, landscape and visual receptors. Feedback is provided on this list with suggested additional viewpoints for the assessment. We note that the Developer intends to refine the parameters of the design in due course as data gathering proceeds and that consultation with CnES and NatureScot on the final list of viewpoints and photo montages will take place.

List of Suggested Viewpoints (NGRs to be agreed)
(Final list will depend on the project presented at EIA and a sufficiently detailed ZTV to ensure they are representative of the potential effects from the proposed development)

- Approaching Barvas (A857) the sea becomes visible on the horizon beyond the telecoms mast (Druim Roundogro) to the right side of the road. Decide on viewpoint closer to Barvas with horizon behind. Impact will increase as the receptor gets close to the coast.
- On the road into Arnol Township
- Car park at replica Shieling between Arnol and Bru villages
- Barvas Beach (popular for surfing/recreational area)
- Loch Mòr Bharabhais
- Bru; village road and from shoreline
- Road into Barvas cemetery, cumulative impact (three UOG turbines hub height 55m tip height approx. 77m)
- Beaches Ness/Butt of Lewis walk
- Galson Business Centre
- Borve and Siader

From all heritage assets in the SLVIA and LVIA study areas, not exhaustive but including:

- Clach an Trushal (Scheduled Monument)
- Steinacleit (Scheduled Monument) high ground
- Shawbost Church (Listed) car park (public space)
- Dun Bhuirgh Scheduled Monument NGR 141,857 958,040. The development has the potential to have significant effects on cultural setting and on the visual appreciation of scheduled monuments in the surrounding landscape. The EIA should include a viewpoint from any scheduled monument potentially impacted within SLVIA the study area.

Cemeteries

- Shawbost Beach/Cemetery
- Loch Shiaboist NGR 125,639 947,600
- Dalbeg Beach
- Dalmore Beach/Cemetery
- Bragar Beach/Cemetery

Highpoints:

- Muirneag NGR 147,951 948,946
- Forsnabhal, Uig NGR 106,174 935,912
- Suaineabhal, Uig NGR107,820 930,888

- An Clisheam, Harris NGR 115,510 907, 231
- Aird Uig/Gallan Head

Circular village footpath at Melbost Borve, with parking and a path, foot bridge leading onto the pebble beach suggest a viewpoint looking towards the proposal site at approx. NGR 140, 890 957, 330 (part of the wider core path network).

Loch na Muilne RSPB reserve at NGR 131,533 949,822.
https://www.rspb.org.uk/days-out/reserves/loch-na-muilne

Cumulative Impact of Wind Energy Development
Regarding cumulative impact, we agree that this matter should be fully addressed in the EIA report, and supported by baseline and predicted effects on the landscape from cumulative development with existing and consented development.

Scoping questions for consultees in relation to SLVIA include:
1. Do you agree with the data sources, including project specific surveys; to be used to characterise the SLVIA baseline within the EIA?
CnES broadly agrees with the data sources, specific surveys to be used to characterise the SLVIA baseline within the EIA, there are some inaccuracies in the data, which must be addressed:
Table 6.13-1 Summary of Key Publicly Available Datasets for Seascape, Landscape and Visual Resources
The scale used for ZTV does not show enough detail. There are no railways on the Outer Hebrides.
https://www.nature.scot/doc/naturescot-review-92-western-isles-landscape-character-assessment
(the above link no longer works and this study from 1998 has been superseded by the review of LCAs by NatureScot in 2019 so this can come out the data sources)

Wild Land Information
https://www.nature.scot/professional-advice/landscape/landscape-policy-and-guidance/wild-land/wild-land-area-descriptions-and-assessment-guidance

Landscape policy and guidance
https://www.nature.scot/professional-advice/landscape/landscape-policy-and-guidance

The National Trust for Scotland owns St Kilda, but has no other significant interests in the Outer Hebrides as far as CnES is aware.

National Route 780, the Hebridean Way from Barra to the Butt of Lewis, which is part of the Sustrans network, note it is completely on public roads and requires ferry crossings.

2. Do you agree that the assessment of the effects on coastal seascape character and landscape character should focus on a 60 km Study Area?
YES, on a clear day, it is possible to see for up to 3 miles (4.8km) before the horizon due to the curvature of the earth. Yet taller objects such as skyscrapers/wind turbines can be seen in a further distance than 3 miles (4.8km) due to no horizon obstruction.

3. Do you agree with the proposal to scope out the landscape planning designations where no further assessment is proposed in the SLVIA?

We advise that the EIA fully addresses the NSA within the SLVIA, agree that the GDL can be scoped out of the SLVIA. NPF4 states that "effects of development outwith wild land areas will not be a significant consideration." The proposed development is outwith wild land areas, which are identified as nationally important in Scottish Planning Policy, although they are not a designation. Consequently we are of the view that Wild Land Areas may be scoped out of the EIA.

4. Do you agree with the proposed list of representative viewpoints identified in Table 6.13-2 and shown on Figure 6.13-2 and Appendix A

It is envisaged that at approximately 4.5km from the site in good visibility conditions the turbines would be: important elements on the landscape and would be clearly perceived. Blades movement would be clearly visible and would attract the eye.

We would seek further Viewpoints from
village roads and recreational paths and beaches along the North West Lewis coast
within the National Scenic Area looking towards the proposed development.
The Developer has provided a list of proposed viewpoints based upon the key seascape, landscape and visual receptors identified in the zone of theoretical visibility ("ZTV") study area. The final list of viewpoints must be agreed with CnES and NatureScot.

Some corrections to Table 6. 13-2 Proposed Representative Viewpoint locations are set out below).

5. Do you agree with the approach to the assessment of visible aviation lighting?

It is noted that night time viewpoints have not yet been determined. There is draft guidance on artificial lighting which should be considered to inform the assessment of the effects on navigation and aviation caused by wind turbines, and suggested mitigation. In addition, the draft guidance in relation to the effects on the special qualities of NSAs should be considered within the assessment.
It is noted that current guidance on windfarms and landscape is a useful reference but much of it does not cover the type of large scale proposals that are being proposed now.

Please refer to the guidance below:

https://www.nature.scot/doc/siting-and-designing-wind-farms-landscape-version-3a
https://www.nature.scot/doc/information-note-effect-aviation-obstruction-lighting-birds-wind-turbines-communication-towers-and
https://www.nature.scot/doc/naturescot-pre-application-guidance-onshore-wind-farms
(see **Annex 1 NatureScot advice on turbine lighting** at the bottom of this page)
https://www.nature.scot/sites/default/files/2020-10/General%20pre-application%20and%20scoping%20advice%20for%20onshore%20wind%20farms.pdf

The EIA should fully address turbine lighting and include night time photo montages from representative viewpoints and different ranges within the study area including the NSA and from villages close to the Array; and from key public roads.

An offshore lighting strategy to determine navigation and aviation lighting, marking and audio signal requirements for the Wind Farm whilst minimising visibility from the shore, and also to

provide information on the predicted visibility of lighting from varying distances and in varying atmospheric conditions.

It should be noted that night sky observation is important to astronomical observers at the Callanish stones and at Gallan Head Uig. An annual Dark Skies Festival is organised by the Lewis Arts community, An Lanntair.

https://lanntair.com/creative-programme/darkskies/
https://www.gallanhead.org.uk/

An assessment on Navigational and Aviation lighting for the proposed development will be required to be produced by an accredited aeronautical engineer in as part of the associated documents of the EIA.

6. Do you agree that all pathways, receptors, and potential likely significant effects have been identified for SLVIA?
Broadly yes

7. Do you agree with the Project impacts which have been scoped out of the EIA for SLVIA?
YES

8. Do you agree that transboundary impacts for SLVIA may be scoped out of the EIA?
YES

9. Do you agree with the proposed approach to assessment?
ZTV maps will require to be at a more sufficiently detailed scale in order to read the map and see the underlying topographical detail. The EIAR will require a ZVT of the whole study area at a more detailed scale as resolution is poor when the map is zoomed in and the topographic layers cannot be read. In addition, a detailed ZVT for the NSA and of the coastal area most impacted from Gallan Head to the Butt of Lewis would be useful.

Final agreement of the viewpoints, wireframes and photomontages should be decided in consultation with CnES and NatureScot.

Additional Comments
We note there are errors in the baseline data presented in the report and we highlight these for your review

Section 6.13.3.2
We agree with the approach to undertake a regional scale coastal character assessment between Aird Mhor Mhangarstaidh and the Butt of Lewis. Figure 6.13-3 SNH (2005) Coastal Character Types and Landscape Character - this map is not sufficiently detailed, a more detailed scale will be required for mapping between the locations suggested for the EIA Report.

Visual Baseline
The visual baseline experienced from within the SLVIA Study Area ranges from simple and expansive views of open sea, from the northwest of the Isle of Lewis to more complex and enclosed views of the sea, to the southeast of the island.

Typo; The road is the A857 (not the "A587" - para 2 page 383 - description of the settlements requires clarification). Ness is an area composed a number of townships/villages - it refers to the area. Port of Ness is one of these townships.

The A857 connects Lower Barvas with Stornoway, generally running southeast through moorland within the interior of the Isle of Lewis ~~and Harris~~. Change placename from Cleichean Beag to Cleitichean Beag, hill adjacent to the junction on the Pentland road leading to the coastal villages of Breasclete and Carloway (para 2 page 384).

Visual Receptors
An assessment will be undertaken in the SLVIA tor those visual receptor's that are most susceptible to visual changes arising from the Project and which may experience significant visual effects due to it; and will focus on visual receptors at locations where the sea is a strong influence in the baseline view, along the Isle of Lewis coastlines between Gallan Head and the Butt of Lewis, and within the immediate hinterland. This may include:

Coastal settlements - such as Galson, Borve, Shader, Barvas, Arnol, Bragar, and Carloway. *We recommend adding potentially impacted villages including Eoropie, Coig Peighinnean, Habost, Swainbost, Lionel; Aird Dell; South Dell; Galson*

Visitor attractions/facilities - such as beaches (Dalbeg, Bosta, *Shawbost Bragar beaches; Barvas Beach and Loch Mòr Bharabhais*)), black house village (Garenin, Arnol, public open space, common land, coastal caravan and camping sites, and cemeteries.

Recreational routes – the Hebridean Way (cycling and walking routes) NB the Hebridean Way walking route ends at the Castle Grounds, Stornoway; the Cycle route ends at the Butt of Lewis, core path network including Butt of Lewis West Coast Path (1). Na Gearranan to Bragar Coastal Path (3); Great Bernera Circular Route (5); and the wider path network:

https://www.visitouterhebrides.co.uk/routes

Barvas and Brue promoted walking route:

https://www.visitouterhebrides.co.uk/routes/barvas-and-brue-walking-route-p536731#:~:text=Once%20you%20reach%20Barvas%2C%20take,a%20waymarker%20to%20the%20right.

Vehicular routes - main transport routes including the A858, A857, B8059; B88011 and several adopted minor roads providing access to the communities listed above.

Representative Viewpoints

Trees, buildings and other above ground level obstructions should be avoided in selecting final positions for viewpoint photography.

CnES considers that the chosen viewpoints are acceptable for assessing the effects of the wind turbine array; however, we advise revision of the information, coordinates and including the following data corrections.

7 ONSHORE CHAPTERS

7.1 Landscape and Visual Impact Assessment

CnES defer to NatureScot for comment on this Chapter.

Individual ZTV's are requested for large scale stand alone shore-based elements of the project (distinct from the WTG's) e.g. any shore based substation at landfall, and Grid substation near Arnish/Creed/Stornoway.

Photomontages of these sub-stations from key viewpoints would also be sought.

This is to enable assessment of the landscape and visual impact of these large scale elements of the project.

7.2 Onshore Ecology
7.3 Onshore and Intertidal Ornithology
CnES defer to the advice of NatureScot in respect of these Chapters of the Report

7.4 Onshore Archaeology and Cultural Heritage.
The CnES Archaeology Service has reviewed and commented as follows upon Archaeology and Cultural Heritage – Onshore – Chapter 7.4

This chapter sets out the study areas for the onshore development of the project, these are defined as a Core Study Area (CSA), where direct impacts on the archaeological resource are anticipated, and with 1km and 3km buffer zones around onshore infrastructure locations. The CSA includes all aspects of the onshore infrastructure. The main agencies for direct impacts to the cultural heritage resource are from construction activities in the landfall area, landfall substation, grid substation and along cable routes. Additional impacts are anticipated from site compounds, borrow pits, laydown areas, construction access routes and decommissioning works. Impact on the setting of terrestrial cultural heritage sites from offshore infrastructure will be is considered through SLVIA within a 10km study area; this is visually represented through ZTV in Appendix A. It is noted that this study area replaced an earlier 45km setting study area; it would be helpful to see the justification for this change. Designated and undesignated historic environment assets within the buffer zones will be identified through further assessment. Furthermore, assets will be included in additional ZTV studies for potential indirect impacts on setting from onshore development within the 3km buffer zone and will be assessed through LVIA. The assessment and subsequent consultation will further inform the EIA reporting process. It will be beneficial to clarify at an early stage whether cable infrastructure will be above or below ground. It should be noted that many areas along the north-

west coast of Lewis are occupied by current settlements; the archaeological record shows a consistency in this pattern and there are extensive remains of earlier occupation or activities over wide areas. The EIAR will need to consider the cumulative impact from the offshore development to the setting of the landscape character along the coastal edge.

Potential effects from construction and decommissioning's are identified and appropriate mitigation measures are presented in section 7.4.4 Embedded Mitigation. The intent of the project is to avoid direct impact on known identified historic environment assets. Desk based assessment augmented by walkover survey will establish the baseline data for known and newly discovered archaeological sites or deposits, including any areas of potential for palaeo-enviromметal remains. Assessment of this data will further inform any additional survey or other appropriate mitigation strategies.
Appropriate mitigation advice can only be made once the results of all stages of assessment are available for consideration and details of the development agreed. In the event that significant archaeological remains are identified, appropriate mitigation works may be recommended. These could comprise one or more of the following:

- the abandonment or re-location of specific elements of the project
- Full archaeological excavation of impacted areas prior to construction commencing in a defined area.

Where less significant archaeological remains are revealed, these areas may be dealt with by a condition requiring one or more of the following:

- a programme of archaeological strip and record mitigation prior to construction commencing in that area
- an archaeological watching brief during groundworks on the least significant archaeological remains
- topographic survey of archaeological earthworks impacted by the proposal

As previously noted, it will be useful to identify timeframes for anticipated consultation and reporting. Additionally, the management of the archaeology and cultural heritage aspect of the project will benefit from a specified role, such as an Archaeological Clerk of Works (ACOW).

The assessment methodology for the Onshore Archaeology and Cultural Heritage phase of the project is considered appropriate.

Scoping Questions for Consultees.
1. As Outlined in Table 7.4.4; Yes.
2. Yes
3. Yes.
4. Yes.

Additional Comments.
- 7.4.6.2 Consultation – Local Groups / representatives. North of Scotland Archaeological Society have no representation in the Outer Hebrides.
- 7.4.6.3: Table 7.4.6 Relevant Legislation, Policy, and Guidance. Our Place in Time has been superseded by Our Past Our Future (2023)

- Appendix A: It is noted that several small islands north of Little Bernera were omitted. Some of these islands have important archaeological sites and must be included within the assessment.
- It would be beneficial if the EIAR could show that significant offshore islands have been considered in terms of setting impact from the development, prior to being potentially scoped out. Although island groups like the Flannan Islands, St Kilda and North Rona are beyond the study areas; It would be considered useful to acknowledge their presence in relation to the proposed development. These islands have significant social and cultural links to the heritage of the Outer Hebrides. Additionally, St Kilda is a dual designated World Heritage site.
- For consideration much of the Core Study Area has high numbers of recorded archaeological sites; however there has been almost no systematic surveys carried out in this area. The exception is the Coastal Erosion Assessment, Lewis (Historic Scotland). However, this was carried out in 1997; given the dynamic character of the coastal zone, data from this source will need reassessment.

All archaeological mitigation strategies are to be carried out through a program of archaeological works through agreed WSI's approved by the planning authority.

Archaeology – General comments
Archaeology and Cultural Heritage – Offshore and Onshore – Chapter 6.8 and Chapter 7.4

Matters related to Offshore components of the development for Marine Archaeology and Cultural Heritage are considered within chapter 6, 6.2, while Onshore elements for Archaeology and Cultural Heritage are considered within chapter 7, 7.4. Landscape and Visual Impact Assessments (LVIA) are considered in Chapter 7, 7.1; specific assessment of historic environment assets will be evaluated through both Landscape and Seascape assessment (SLVIA). The visual impact assessment is augmented by blade tip Zone of Theoretical Visibility (ZTV) data presented with in Appendix A.

Potential impacts on the setting of historic environment assets; and any coastal scheduled monuments must be scoped into the assessment, and linked with those Chapters on Marine Archaeology & Cultural Heritage and Onshore Archaeology & Cultural Heritage of the EIA Report.

The Report provides a synopsis of the proposed study areas, environmental factors for consideration, baseline data sources that will be reviewed, as well as the projects approach to the EIAR. The Archaeology Service welcomes the inclusion of dedicated chapters to assess the potential impact of the development proposal upon the cultural heritage resource.

7.5 Traffic and Access

CnES Roads has reviewed this Chapter of the Report and advise as follows:

The scale of the project will have a significant impact on the wider road network.

The Assessment methodology for Traffic and Access(7.5.6.4) should be reconsidered. Given that a large proportion the road network is founded on peat deposits (floating) it would be sensible to class the whole network as potentially sensitive which would bring in the 10% increase limit rather than 30%.

Further, the increase in traffic should be based on the worst case phase of the project, which in this case would be the construction phase (as opposed to the normally used operational phase).

The various Traffic Management Plans in Table 7.5-3 will consider different stages and types of traffic movements throughout the project.

Permanent damage/impact to the existing road network from the construction phase is highly likely.

Assessment and mitigation proposals including detailed pre works condition surveys, detailed assessment of construction traffic levels/frequency will be necessary to enable identification of road network locations at highest risk of damage. The developer could be held responsible for any damage to the road network as a result of the works.

Routes for Abnormal Loads should be checked for pinch points and any mitigation works required. Any structures [bridges, caseways, culverts etc] crossed by these loads should be assessed beforehand.

7.6 Contaminated Land
Comhairle nan Eilean Siar Environmental Health agree to that which is presented within the Report as having been scoped in and out.

7.7 Hydrology
Comhairle nan Eilean Siar Environmental Health agree to that which is presented within the Report as having been scoped in and out.

7.8 Noise
Comhairle nan Eilean Siar Environmental Health agree to that which is presented within the Report as having been scoped in and out.

7.9 Land Use, Tourism and Recreation
Comhairle nan Eilean Siar Economic Development were invited to review this Chapter but offered no comments.

7.10 Air Quality and Human Health
Comhairle nan Eilean Siar Environmental Health agree to that which is presented within the Report as having been scoped in and out.

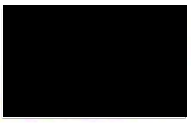
WHOLE PROJECT CHAPTERS

8.1 Climate
8.2 Socio Economics

No comments to offer on these two Chapters

I trust the foregoing is of assistance to you in formulating a response to the Scoping Report

Yours faithfully



Morag Ferguson
Planning Manager (Development Management)
Chief Executive's Department

Table 6.13-2 Proposed Representative Viewpoint Locations (suggested amendments highlighted in red)

ID	Description	Approx. Grid Ref	Approximate Distance (to Array Area)	Reason for Selection
1 Butt of Lewis Lighthouse/Core Path 1	The viewpoint is located on the clifftops to the west of the Butt of Lewis lighthouse, which lies at the northern tip of the Isle of Lewis. The surrounding area is relatively wild and undeveloped. The view looks west along the coastline to the open sea from sloping crofting areas.	151878 966467	21.1 km	The most easterly elements of the Project are potentially visible when looking along the coast. Representative of the area around the Butt of Lewis lighthouse, which is a popular signposted attraction with parking and interpretation boards.
2 A8578 at turnoff to Melbost Borve	Nearer to the northern end of the Isle of Lewis, the viewpoint lies near the juncture of the A857 and the road to Melbost Borve. The view looks west from relatively level crofting areas to the open sea.	141836 957013	10.4 km	Potential visibility of the Project from the road and representative of the views of westbound road-users, people walking north to the coast on the recognised path route and residents.
3 Shader/Core Path 1	The viewpoint is located on the Lower Shader Road, where it meets the coast, just north of the settlement, adjoining Core Path 1. The view looks west from relatively level crofting areas to the open sea with the coastline of Lewis partially enclosing it.	138011 954939	7.8 km	Potential visibility of the Project from the coastline just north of Shader and Core Path 1. Representative of the view westwards seen by residents and people walking along the coast. Scheduled monument at his viewpoint. old chapel, Teampull Pheadair.
4 Arnol/Blackhouse (Scheduled Monument)	Located north of the main settlement and closer to the coast, the viewpoint lies near Arnol blackhouse with linear crofting to the west and moorland to the east. The view looks northwest over Port Mhor Bhraigair to the open sea.	131048 949299	8.2 km	Representative of views seen by visitors to the blackhouse, walkers on the core path and the similar views seen by residents of Arnol. Potential visibility of the Project beyond the bay and within the open sea. Sensitivity due to the number of visitors to the blackhouse, popularity with walkers along the coast and the open view across the inlet and sea.
5 5. A857 near junction with A858 Also amend the Key in Figure 6.13-2 ZTV	Located within Barvas, the viewpoint lies on the A857 near the junction with the A858. From an area of crofting, the view looks north-northwest towards the sea, over machair and Loch Mòr Bharabhais.	135732 949127	11.0 km	The view is representative of those seen by westbound road-users on the A858 and residents, who have potential visibility of the Project beyond the coastline.

6 Shawbost/Core Path 3 Also amend the Key in Figure 6.13-2 ZTV 3. Shader/Core Path ~~1~~ to 3. Shader/Core Path 3	Located at the northern end of the settlement and closer to the coast on Core Path 3~~1~~, the viewpoint lies within an area of linear crofting. The view looks north over the coastline to the open sea.	126016 948175	6.3 km	Representative of views seen by residents and walkers along the coast. Potential visibility of the Project beyond the coastline and within the open sea. Sensitivity due to the number of residents, popularity with walkers and the natural quality of the open sea view.
7 A857 – inland	Within the boggy moorland of Lewis's interior, the viewpoint lies at a slightly elevated inland location on the A857 south of its junction with the A858. The view looks north-northwest towards Barvas and the open sea beyond.	137434 947122	13.7 km	The view is representative of those seen by northbound road-users who have potential visibility of the Project directly ahead. Higher sensitivity derives from the relatively large number of people that may be affected.
8 A858 near turn-off to Dalbeg	Located on the northern coast of Lewis, the viewpoint lies near the junction of the A858 and the road to Dalbeg. Rocky Moorland surrounds the viewpoint which overlooks linear crofting. The view looks northwest to open sea, with this westerly section of the Atlantic coast, appearing less complex than further west but more so than that further east.	123360 945315	7.2 km	Representative of the view seen by eastbound road-users, who have potential visibility of the Project directly ahead, framed by landform as eastbound receptors round a bend to face northwest. Sensitive due to the direct line of view, sudden appearance of the Project, and the complex landscape setting of the inlet, including the bay and headlands.
9 Dalmore Beach/Core Path ~~3~~2	The viewpoint lies at the coastal edge of a small valley containing the settlement of Dalmore and surrounding linear crofting. Just north of the main settlement and on Core Path 3~~1~~, the viewpoint overlooks open sea. The view is framed by the adjoining headlands.	121563 945073	6.4 km	Representative of the view seen by beach goers and users of Core Path 3 who have potential visibility of the Project from a less developed area within and looking away from the NSA. Higher sensitivity derives from the complex landscape setting, including islands and headlands; and its small-scale.
10 Beinn Bhragair Correct spelling on Map Key Figure 6.13-2 ZTV	The viewpoint is located at the summit of the 261m hill, south of Shawbost and is surrounded by rocky moorland and overlooks linear crofting along the coastline.	126644 943301	10.7 km	Representative of walkers who have potential visibility of the offshore Project from this inland high point. Higher sensitivity derives from the relative wildness of

	The view northwest to the open sea is panoramic.			surrounding landscape and coastline.
11 A857-south	The viewpoint lies on the A857, towards the southernmost stretch of road with potential visibility of the Project. The view looks north-northwest from within boggy moorland towards Barvas and the open sea beyond.	140152 939811	21.2 km	The view is representative of those seen by Northbound road-users who have potential visibility of the Project directly ahead. Higher sensitivity derives from the relatively large number of people that may be affected.
12 Bosta	On the northern coast of the small island of Great Bernera, this coastal viewpoint is located at the signposted beach near Bosta Cemetery, there are also the remains of an Iron Age settlement in the dunes, Scheduled Monument (SM7335)~~0~~, behind the beach. Within and overlooking a landscape of cnoc and lochan. Looking north-northeast, the coastline frames the view with Little Bernera ahead and the distinctive features of Bearasaigh and Flodaigh ~~Stac an Tuil~~ further west.	113750 940173	7.6 km	Representative of the view seen by beach goers, visitors to the replica iron age ~~village~~ house, users of Core Path 5~~3~~ and visitors to the cemetery, who have potential visibility of the Project from a less developed area within and looking away from the NSA. A bench indicates informal recognition of the view. Higher sensitivity derives from the complex landscape setting, including islands, beaches and headlands; and its small-scale.
13 Gallan Head	The coastal viewpoint is located towards the west of the Isle of Lewis's northern coast and lies on the Gallan Head headland near the World War 1 Royal Navy Observational Point. It is situated within and overlooks rocky moorland. The view looks northeast across open sea, the more inshore strait of An Caolas and the northern coastline beyond.	105159 939151	12.5 km	Representative of views seen by visitors to the Observational Point who have potential visibility of the Project from a less developed area within the South Lewis, Harris and North Uist NSA. Higher sensitivity derives from the complex, small-scale mosaic of the landscape setting, including islands and headlands.
14 Reef Beach (Not on the B8011 remove text)	Located on the west of the Isle of Lewis ~~on the B8011~~ just south of Valtos, the viewpoint lies within a campsite ~~behind the larger of Valtos's beaches,~~ Reef Beach. The view looks north-northwest across the beach and ~~the~~ several islands including Great Bernera to Lewis's Atlantic coastline.	110021 935958	12.5 km	Potential visibility of the Project from a popular beach with campsite within the South Lewis, Harris and North Uist NSA. Representative of beach goers and campers.

15 Shulishader	Located east of Stornoway, on the eye peninsula, the viewpoint lies at the southern end of Shulishader on the A866. The view from the slightly elevated viewpoint looks northwest. The landform of the Isle of Lewis screens the Atlantic Sea from view.	152999 934555	32.9 km	Potential visibility of the Project from a greater distance and at a slightly elevated location. Representative of residents and road users.
16 Cairisiadar	The viewpoint is located on the B8011 as it passes through Cairisiadar, on the shore of Loch Ròg. The viewpoint looks north-northwest over Flodaigh, Loch and the surrounding headlands and island.	~~121299 932965~~ 109977 933095	16.4 km	Representative of the view seen by residents and drivers on the B8011, who have potential visibility of the Project from within the South Lewis, Harris and North Uist NSA.
17 Callanish standing stones (Scheduled Monument)	The viewpoint is located at the southern end of Loch Ròg An Ear and lies near an interpretation board at the southern end of the accessible path for the Callanish Standing Stones, a Scheduled Monument (SM90054). Linear crofting characterises the surrounding landscape. The view looks north, taking in the stones with Callanish and the hills of western Lewis enclosing them beyond.	~~109977 933095~~ 121298 932965	15.3 km	Representative of visitors to the standing stones, who have potential visibility of the Project behind the standing stones and enclosing landform, with the NSA visible to the west. Highly sensitive due to the world-renowned historic monument and visitor attraction, with facilities including parking, café and shop; and the remote, quite complex, and undeveloped nature of the landscape setting.
18 Mealaisbhal	The viewpoint lies within the more hilly and mountainous area within the west of the Isle of Lewis, characterised as Prominent Hills and Mountains (LCT 326), and is located at the summit of the (575 m) hill. The viewpoint looks north-northwest, overlooking the surrounding hills and more complex coastline around Loch Ròg and Loch Ròg an Ear.	102531 926941	23.9 km	The view is representative of those seen by walkers on the hill, who have potential visibility of the Project from a relatively wild and undeveloped area. Higher sensitivity derived from the location within more sensitive, designated landscapes of South Lewis, Harris and North Uist NSA and Harris-Uig hills WLA (30).
19 Sgalabhal	The viewpoint lies at the summit of the (260 m) hill, to the south of the Isle of Lewis and Harris. A route to it runs from car parking on the A859. The view looks north across the hills and mountains of south Lewis to Lewis's Atlantic coastline.	114324 920257	27.5 km	Potential visibility of the Project from a high point within the Isle of Lewis and the South Lewis, Harris and North Uist NSA. Representative of walkers on the hill.

Cruising Association

From:	rickballard.rats@gmail.com
To:	MD Marine Renewables
Subject:	SCOP-0032 - Spiorad na Mara Offshore Windfarm - Isle of Lewis - Consultation on Request for Scoping Opinion
Date:	20 October 2023 16:01:37

Thank you for inviting the Cruising Association to respond to this application. Our main interest is the impact on recreational boaters and our view is that there will be little or no impact in the area of the proposed array.

At this stage we have no further comments

Rick Ballard
Regulatory & Technical Services (RATS) Group
Cruising Association
w: https://www.theca.org.uk/public/rats
[redacted]

Galson Estate Trust

Scoping Report Response

Ref : SCOP-0032

Spiorad na Mara Offshore Windfarm

URRAS OIGHREACHD GHABHSAINN
GALSON ESTATE TRUST

A company registered in Scotland - No: 273903
A registered Scottish Charity SC036903

Preamble

By way of preliminary comment, the proximity of this development to shore is considered highly irregular and has caused concerns within the communities along the affected seaboard. Some groups of residents are so agitated about the proposals that they are seeking advice on how to object to the development prior to the consenting process commencing. Notwithstanding, should the development proceed, there would need to be a significant benefit package made available to residents along the western seaboard of the Isle of Lewis in return for hosting such massive infrastructure. Specific comments on the Scoping Report are provided below.

1.4 Project Overview / 2.2 Project Scope

It is very concerning that there was such a significant change between potential zones alluded to in the Sectoral Marine Plan Areas of Search and N4 in the Draft Plan Options around a year later. One of the key risks noted in the Sectoral Marine Plan was :

Potential adverse visual impacts and landscape/seascape character impacts.

Accordingly, there will be significant visual impact from an array of up to 66 turbines, potentially 380m to tip height, lying between 5km and 13 km offshore. Onshore, a gigantic substation of up to 50,000sqm would dominate the landscape which currently comprises areas of open moorland with scattered crofting townships.

Should the project proceed, there will need to be considerable care taken in turbine positioning, development density, height and other aspects that will affect visual impact. Section 2.6.1.1. does not appear to mention this in its description of the factors involved in determining layout.

1.6 Consenting Strategy / 3.4 Planning Legislation

Whilst utilising Section 57 of the Town and Country Planning (Scotland) Act 1997 via a single application for consent under Section 36 of the Electricity Act 1989 is a feasible option for onshore elements, it would be regarded as much less transparent and democratic by members of the public.

2.8.1 Onshore Export Cables and Associated Infrastructure

The proposal to adopt underground cabling is strongly supported and overhead infrastructure should not be used.

5.2 Stakeholder Identification

Whilst the list of stakeholders is not intended to be exhaustive, there are important types of organisations who appear to have been omitted e.g. Highlands and Islands Enterprise, Community Councils and community landowners.

6.9.6.2 Consultation

The Western Isles Fisherman's Association should be added to the list of consultees.

7.8.5.1 Likely Significant Effects

Table 7.8-2 appears to omit any reference to risks to humans leading to adverse health effects. These can include sleep disorders, headaches, mood disorders, inability to concentrate, tinnitus, effects on vestibular (balance) and heart, and vibratory sensations. Causes have been proposed such as amplitude modulation; lack of night-time abatement; audible low frequency noise (LFN); inaudible LFN/infrasound; tonal noise; electrical pollution/stray voltage; and visual impacts such as shadow flicker and flashing lights. Reference is made to research such as *Wind turbines and adverse health effects: Applying Bradford Hill's criteria for causation (*Dumbrille, McMurtry and Krogh; October 2021; www.environmentmed.org).

7.9.3.2 Overview of Baseline Environment

Whilst crofting is correctly highlighted, the requirement to remove land from crofting tenure (via application to the Scottish Land Court) to facilitate onshore development appears to have been overlooked.

7.9.6.1 Consultation

Highlands and Islands Enterprise and community landowners should be added to this list. The Crofting Commission could be a useful addition also. Lewis and Harris Riding Club may be a more relevant consultee than the British Horse Society.

7.9.6.2 Policy, Legislation and Guidance

There are a number of documents that have been omitted, such as the Outer Hebrides Community Planning Partnership Local Outcomes Implementation Plan 2017-27, Islands Growth Deal, Comhairle nan Eilean Siar Corporate Plan 2022-27, Highlands and Islands Enterprise Strategy and Operating Plan 2023-28, community landowner strategic plans such as the Dalmore to Garynahine Community Plan and the Urras Oighreachd Ghabhsainn Strategic Plan.

8.2.3.1 Data Sources

Important sources of data have been omitted such as National Records of Scotland and the National Islands Plan Survey (Scottish Government), Highlands and Islands Enterprise, Outer Hebrides Community Planning Partnership and the Western Isles Integrated Joint Board.

Urras Oighreachd Ghabhsainn

18 December 2023

E office@uogltd.com / **T** 01851 850393

Highlands and Islands Airport

From: Nyree Millar Bell
To: MD Marine Renewables
Cc: Safeguarding
Subject: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date: 08 November 2023 08:38:18

Your Ref: SCOP-0032
Our Ref: 2023/302/SYY

Dear Sir/Madam,

Proposal: SCOP-0032
Spiorad na Mara Offshore Windfarm – Isle of Lewis

With reference to the above, our preliminary assessment shows that, at the given position and height, this development may impact the safeguarding criteria and operation of Stornoway Airport.

HIAL request that an Aviation Impact Feasibility Study (AIFS), of the proposed development, is undertaken to understand any impact on the infrastructure and operation of Stornoway Airport. The following are required to be assessed by the applicant:

Hazard	Impact	Additional Information
Air Traffic Control Surveillance Minimum Altitude Chart (ATCSMAC)	☐	Please see CAP777 requirement.
Safeguarding of technical sites	☐	Please see CAP670 & CAP764 requirements (NAVAIDS)
Instrument Flight Procedures (IFPs)	X	Please see CAP785 requirement. The IFP Assessment MUST be produced by an Approved Procedure Design Organisation (APDO). A list of APDO can be found on the CAA website: Approved procedure design organisations | Civil Aviation Authority (caa.co.uk)
Primary Surveillance Radar	☐	Please see CAP670 & CAP764 inc. Optical Line of Site assessment. Please consider the Thales STAR PSR & proposed Terma Scanter Radar - Expected to be commissioned Oct 2023. Contact this office for details of the location and electronics height.
New Airspace and Instrument Flight Procedures (Inverness Airport only)	☐	It should be noted that Inverness Airport are in the process of developing new airspace and instrument flight procedures; this work is relatively mature and should be included in the AIFS. Data and information can be found: Inverness Airport | Civil Aviation Authority (caa.co.uk)
Lighting Requirement	X	For further information please refer to Advice Note 2 'Lighting' (available at http://www.aoa.org.uk/policy-campaigns/operations-safety). Please also consider the lighting requirements as documented in The Air Navigation Order 2016, Article 222.
Crane Permit	☐	Please see CAP1096, British Standard Code of Practice for the safe use of Cranes and Advice Note 4, 'Cranes' (available at http://www.aoa.org.uk/policy-campaigns/operations-safety/). A crane permit must be completed and submitted to HIAL. Please contact the HIAL safeguarding for a crane permit application.
Glint and Glare Assessment	☐	A glint and glare assessment must be submitted for the proposed development. More information can be found: https://www.aoa.org.uk/wp-content/uploads/2016/09/Advice-Note-5-Renewable-Energy-2016.pdf
Construction Management Strategy	☐	A construction management strategy must be submitted for the proposed development. This should include the following details:

		• Details of the construction of the Wind Turbines onshore
		• Turbine route map from onshore to the offshore location

It should be noted that HIAL would work with the developer towards a resolution. However, HIAL currently submit a holding objection until the AIFS has been submitted to and reviewed by HIAL.

Once the AIFS has been reviewed by HIAL, and any impact is understood, the applicant may then expect to be contacted by HIAL to enter formal discussions.

Kind regards,

Nyree Millar-Bell
Aerodrome Safeguarding and Operations Support Officer
Highlands and Islands Airports Limited

Historic Environment Scotland

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to:
MD.MarineRenewables@gov.scot

Marine Directorate
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131-668-8716
HMConsultations@hes.scot

Our case ID: 300064795
Your ref: SCOP-0032

18 December 2023

Dear Marine Directorate

Spiorad na Mara Offshore Windfarm
Scoping Report

Thank you for your consultation on the above scoping report, which we received on 19 October 2023. 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). For the marine licensing aspect of the development, we also offer advice on undesignated cultural heritage interests to the Marine Directorate.

The relevant local authority archaeological and cultural heritage advisors will also be able to offer advice on the scope of the cultural heritage assessment. This may include heritage assets not covered by our interests, such as unscheduled archaeology, and category B- and C-listed buildings. In this case, you should contact Western Isles Archaeology Service (6 Kenneth Street, Stornoway, Isle of Lewis, HS1 2DP; phone 01851 822758; email kevin.murphy@cne-siar.gov.uk)

Proposed Development
We understand that the development would comprise an array of up to 66 wind turbines standing up to 380m tall, associated offshore infrastructure, plus undersea cables, landfall substation(s) and their associated infrastructure and an onshore cable connection to a location near Stornoway. The turbine array would be located within an area approximately 5-10km off the stretch of coast running between Loch Rog an Ear and Rubha Bhlanisgaidh on the north-west side of the Island of Lewis.

The Scoping Report makes it clear that the final design of the development will be determined through the EIA process with a number of route and design options included in the Report. As a result, the Scoping Report lays out broad principles and study areas for assessment but does not focus on the detail of potential impacts.

Scope of assessment

We note that the current consultation covers both the marine and terrestrial aspects of the proposed development and that the Marine Directorate will be assessing the proposals under the requirements of the Marine (Scotland) Act 2010, section 36 of the Electricity Act 1989, and the applicants' request for Scottish Ministers to give a direction for planning permission to be deemed to be granted under section 57 of the Town and Country Planning (Scotland) Act 1997.

Potential physical impacts
The development has the potential to result in physical impacts on both known and unknown cultural heritage assets. We note the mitigation measures described in the Report and consider that if these are implemented they would minimise the risk of such impacts.

Potential setting impacts
There are a number of nationally important historic environment assets within our remit in the vicinity of the development whose settings have the potential to be adversely impacted by it. The Report provides little detail on the exact nature of the development so it is difficult to provide any meaningful assessment of potential setting impacts. The attached annex highlights the most obvious issues.

Potential cumulative impacts
We recommend that the potential cumulative impacts of the proposed development should be assessed in combination with those of any other developments in the vicinity. This should assess the incremental impact or change when the proposed development is combined with other present and reasonably foreseeable developments. This particularly relevant to works near Stornoway where other development proposals are also being considered.

Scoping Report
We welcome that cultural heritage effects are scoped into the assessment. We also welcome that the operational effects of the proposal on the setting of cultural heritage assets as well as direct impacts from construction will be assessed.

As noted above, the broad nature of the proposals laid out in the Scoping Report makes it difficult for us to identify and assess specific impacts or issues relating to cultural heritage interests. We are content that if the methodology and mitigation measures laid out in the Scoping Report are followed this should minimise the risk of significant impacts. In some cases, such as the marine surveys discussed in section 6.1.6.1., the applicants should ensure that these are carried out in a manner that facilitates their use for archaeological analysis.

We are content with the baseline assessment methodology laid out in section 4.3.3 of the Report (Tables 4.3.1 and 4.3.2.).

We note and welcome the embedded mitigation measures proposed for cultural heritage interests, which focus on understanding and avoidance of impacts. For marine archaeological interests, where it can be harder to assess and predict impacts, we note that a Written Scheme of Investigation and a Protocol for Archaeological Discoveries are proposed as contingencies to address any remaining areas of uncertainty or unexpected discoveries.

While we are content for setting impacts to be scoped out for marine archaeological interests, we have some concerns about the treatment of setting impacts on terrestrial assets within the report. Setting impacts are referred to as both direct and indirect impacts in different parts of the report. For the avoidance of doubt, setting impacts resulting from the presence of the wind farm and its associated infrastructure are direct impacts in EIA terms and should be treated and referred to as such in the final EIA Report. We also recommend that rather than applying study areas with specific distance boundaries (10km and 3km), Zone of Theoretical Visibility studies should be used in the first instance to identify potential setting impacts on designated cultural heritage assets.

Further information
Guidance about national policy relating to cultural heritage can be found on our website at https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/historic-environment-policy-for-scotland-heps/ .

We hope this is helpful and we would be happy to provide further information and advice to the applicants as they work through the EIA process. Please contact us if you have any questions about this response or require further information on any matter raised. The officer managing this case is Deirdre Cameron who can be contacted by phone on 0131 668 8896 or by email on Deirdre.cameron@hes.scot

Yours sincerely

Historic Environment Scotland

Annex

Scoping Report
We are generally content with the detail and approach outlined in the Archaeology and Cultural Heritage chapter but wish to highlight the following matters –

Marine Surveys
Section 6.1.6.1. offers a brief summary of survey techniques that could be undertaken to inform understanding of the seabed, but no specific detail for how these surveys would be undertaken. We recommend that any such surveys should allow for analysis for archaeological interests e.g. sonar surveys should be at a resolution that would allow for the identification of wrecks or archaeological features; geological core samples should be analysed in a manner that would allow for the identification and assessment of material relating to submerged landscapes if present. Unexploded ordnance survey should consider the potential archaeological/historic interest of materials identified, and the potential for other military remains to survive in the vicinity of any ordnance found.

Setting Assessments
We are content for setting impacts on marine (seabed) archaeology to be scoped out of further assessment for setting impacts.

We note that direct setting impacts resulting from the development are referred to as both direct and indirect within different sections of the report. This use of language should not be repeated in the EIA Report.

The Scoping Report outlines proposals to assess setting impacts on terrestrial cultural heritage assets using study areas defined by distance from a specific feature; 10km from the coast for impacts resulting from the offshore turbine array and 3km from proposed substation locations and connecting line route options. We do not consider the use of arbitrary distance limits for assessment is appropriate in this case, particularly given the scale of the turbines in the offshore element of the proposals and the lack of clarity over the nature of the terrestrial works. The use of the 10km study area could exclude some vulnerable assets with particularly sensitive settings from the assessment e.g. the notable group of scheduled monuments on the Eye Peninsula.

We note and welcome the proposed use of Zone of Theoretical Visibility (ZTV) analysis in the assessment process and we recommend that rather than using a specific distance limit, an approach where professional judgement is applied to the ZTV would be a more thorough way to identify assets for further assessment.

The assessment should also consider the potential for setting impacts on assets which lie outwith the ZTV but where key inward views associated with their setting are within the ZTV.

Table 7.4-3 on page 484 states that impacts on setting will be scoped out for the construction and decommissioning process on the grounds that they are temporary impacts. No information is provided on just how temporary these works will be. Given the scale and extent of the likely construction and decommissioning periods, it is possible that these "temporary" impacts could be experienced over a substantial length of time and may therefore need to be scoped in.

Where assessment of an asset's setting indicates potentially significant impacts from the proposed development, wireframe illustrations should be produced to help assess those impacts. Where the impacts are identified as significant, photomontages should be produced to illustrate the impacts.

Historic Environment Scotland's interest

Proposed substations and cable routes

For our statutory interests, a scheme with offshore substations would appear to be preferable to a scheme with onshore substations as it would reduce the potential for impacts on known heritage assets. However, this could change if important archaeological remains are encountered in the offshore development area.

The Scoping Report contains options for four potential sites for onshore substations

- Site 1 (near Shader) – this substation could have a setting impact on nearby cultural heritage assets. The construction of a linking cable route from a substation at Site 1 would also have to avoid the large number of scheduled monuments around Loch an Duin / Steinacleit.
- Site 2 (near Clach an Truschal) – this substation could have an adverse impact on the setting of a scheduled monument nearby; Clach an Trushal, standing stone, Ballantrushal (SM 1661).
- Site 3 (near Arnol) – we have no specific concerns about this site and cable route option at this time, although once we have full details for the substation and cable route this advice could change.
- Grid substation search area – the study area for the grid connection substation contains two designated assets; the scheduled monument Cnoc na Croich chambered cairn (SM6550) and the designed landscape Lews Castle and Lady Lever Park (GDL00263). We expect physical and setting impacts on these assets, and any others affected, to be assessed and mitigated if necessary during the EIA process.

Specific assets and their settings
As noted above, we advise that assets beyond the 10km study area be considered for assessment if they have settings that are sensitive to change. This includes scheduled monuments on the western side of the Eye Peninsula near Stornoway, and SM1683 St Ronan's Church and village settlement, Rona if it lies within the ZTV for the turbine array.

The submitted ZTV indicates that the turbine array would be theoretically visible in important views from the Category A listed Butt of Lewis Lighthouse (LB5768). We welcome the proposal to provide a visualisation from this asset (View Point 6.5d). We agree with the proposed location for this visualisation and consider it should help assess potential impacts of the proposals on the setting of this asset.

There are a large number of early chapels along the western coastline of Lewis which have isolated coastal settings; their remoteness and sense of sitting "at the edge of existence" forms an important element of their setting and cultural significance. Particular attention should be given to the impact of the turbine array on the settings of these monuments.

The complex of prehistoric ritual monuments Calanais has a highly sensitive setting, and it is not clear from the ZTV what visibility there will be of the proposed turbines in key views associated with the complex or its wider settings. Given the scale of the turbines and the sensitivity of Calanais' setting, particular attention should be given to these monuments' settings in any forthcoming assessment.

We appreciate that the final design of the development will be informed by the EIA process and we would be happy to offer further information and advice to the developers and other interested parties as the scheme evolves.

Historic Environment Scotland
18 December 2023

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to:
MD.MarineLicensing@gov.scot

Marine Directorate
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131-668-8716
HMConsultations@hes.scot

Our case ID: 300064795
Your ref: SCOP-0032
20 December 2023

Dear Marine Directorate

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000
Spiorad na Mara Offshore Windfarm
Scoping Report
Additional information

On 18 December, we sent you our scoping response for this proposed wind farm development. We have subsequently been advised that our Designations Team is considering two archaeological sites for designation as scheduled monuments in the vicinity of the terrestrial cable corridor options for the Spiorad na Mara Wind Farm.

Eilean Loch a' Bhaile, North Bragar – dun in Loch Arnol
Stac a' Chaisteil – dun on coastal promontory

We would be grateful if you could pass this information on to the applicants to ensure they can undertake their cultural heritage assessment in a fully informed manner.

The designation proposals will be going to the consultation stage early in the New Year. If the applicants or their agents wish to be involved in the consultation process, we would be happy to provide further details.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is Deirdre Cameron who can be contacted by phone on 0131 668 8896 or by email on Deirdre.Cameron@hes.scot .

Yours faithfully

Historic Environment Scotland

Joint Radio Company

From:	JRC Windfarm Coordinations Old
To:	MD Marine Renewables
Subject:	Spiorad na Mara Offshore Windfarm - enquiry from website [WF351553]
Date:	03 November 2023 07:42:56

Dear scottish,

A Windfarms Team member has replied to your co-ordination request, reference **WF351553** with the following response:

Hi Kate,

Without turbine locations we are unable to comment if they will be clear or not. Please update us if/when you get them.

Kindest Regards,

Heather Willoughby

We hope this response has sufficiently answered your query.
If not, please **do not send another email** as you will go back to the end of the mail queue, which is not what you or we need. Instead, **reply to this email by clicking on the link below or login to your account** for access to your co-ordination requests and responses.

https://breeze.jrc.co.uk/tickets/view.php?auth=o1xtqgaaaf4pmaaaYGUqpQvGd1WMTg%3D%3D

Marine Directorate – Marine Analytical Unit

Spiorad na Mara Offshore Wind Farm

Science, Evidence, Data and Digital (SEDD[1]) Response
Marine Directorate

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

We recommend that a full Socio-Economic Impact Assessment be scoped into the Environmental Impact Assessment. We provide general advice on how to deliver this in Annex 1.

1. Overview

1.1. Study areas

In addition to the study areas identified for the assessment (described in para 8.2.2.), please consider where the epicentres of impact (such as ports, landfall, fishing communities etc) might be. Please include a description of the epicentres of impact into the EIA and consider what impacts are going to be associated with these locations.

1.2. Consultation, stakeholder engagement, and primary data collection

We noted the consultation activities that have been conducted to date, including the introductory public information sessions held in June 2022 and feedback that has been collected through these events (described in the para 5.3.4. of the report). We also note the intention to consult the Comhairle nan Eilean Siar and local community councils.

We hold that the engagement of local stakeholders is very important for the assessment of socio-economic impacts, as these communities might be directly impacted by the development. As described in the Annex 1, we recommend conducting a stakeholder mapping exercise to identify all potential stakeholders who might be affected by the development. These stakeholders need to be engaged for identification and assessment of potential impacts (e.g. creation of a working group with local community councils where magnitude and sensitivity of socio-economic impacts is discussed).

[1] As a result of the organisational development in 2023, Marine Scotland has been re-named to Marine Directorate, and Marine Analytical Unit (MAU) was merged with Marine Science to form Science, Evidence, Data and Digital (SEDD) delivery area. This advice on socio-economics comes from what used to be the MAU team.

It is also important not only to inform members of the general public about the development but also gather their views of how they might be affected (primary data collection). The information events that took place in June 2022 are useful first steps in conducting primary data from members of the general public. We recommend that potential socio-economic impacts are discussed with members of the general public and their assessment is fed into the EIA report.

We encourage the developer to engage trained social scientists with experience in qualitative methods to conduct research and primary data collection with communities to ensure that the social science research methods are designed and executed correctly so that the engagement is delivered in as ethical and meaningful way as possible.

1.3. Data sources

Please provide a list of data sources used to assess potential socio-economic impacts (see Annex 1 for examples). Please use the most up-to-date data sources. For example, there is more up-to-date population data for the Isle of Lewis than 2011.

2. Scoping of impacts

2.1. Overall approach to scoping

We disagree with the proposed list of social impacts to be scoped in, as it is insufficient. Please see Section 3 of the Annex 1 attached to this response for a full list of socio-economic impacts that need to be assessed during the EIA.

For example, in addition to impacts on housing we would like to see how broader local services will be affected by the development, including healthcare provision and education as a result of potential in-migration of workers.

In addition to conducting desk-based research in relation to potential socio-economic impacts, we would like you to engage local communities (local authorities, community councils, members of the general public, and any other relevant stakeholders) to discover how these stakeholders assess potential changes. Local communities' views are important when deciding how to mitigate potential negative impacts and maximise potential positive impacts resulting from the development. Para 8.2.4. states that there is no embedded mitigation relevant to the socio-economics assessment. Please discuss with local stakeholders whether they anticipate negative socio-economic impacts and their views on mitigating such potential effects resulting from the development.

2.2. Economic impacts

We broadly agree with the scoping report's proposed approach for assessing economic impacts (page 604 - 612, section 8.2). It is welcomed that the assessment will include direct, indirect and induced impacts, however, it would be useful if the

license application takes into account deadweight, leakage, displacement and substitution. The inclusion of sensitivity analysis to account for risk, uncertainty and optimism bias is also encouraged, in line with our guidance shown in Annex 1.

The proposed approach to assessing employment impacts could be improved by analysing employment affects in terms of years of employment and 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.

We expect to see a detailed description of the methodology used to assess economic impacts in the EIA, 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.

2.3. Impacts on tourism

Impacts on tourism are not scoped into the socio-economics chapter and are captured elsewhere in the scoping report (para 6.12 and para 7.9). These impacts are directly relevant to socio-economics. Therefore, we would like to see the assessment of socio-economic impacts on tourism in the EIA report, please scope them into the socio-economics chapter.

2.4. Socio-economic impacts on fisheries

If there are significant changes to commercial fisheries, we would like to see the assessment of the knock-on socio-economic effects in the local communities affected. For example, if there is displacement leading to gear conflict, this could lead to drop in income and tensions within community.

3. Conclusions

We broadly agree with the scoping report's proposed approach for assessing economic and social impacts. However, only a limited number of socio-economic impacts have been scoped in. A broader range of socio-economic impacts needs to be assessed in line with the recommendations provided in the Annex 1 attached to this response. Epicentres of impact (e.g. ports) need to be considered in the assessment. Most up-to-date data sources need to be used for the assessment and these need to be described in the EIA. We expect to see a detailed description of the methodology used to assess social and economic impacts in the EIA. We would like to encourage the developer to conduct more engagement with local communities and to be transparent and explain their methodological choices (how data from stakeholders and communities was collected and analysed) in the EIA application. This information will help us understand whether social impacts have been adequately assessed, and whether local communities had an opportunity to contribute to the assessment. We recommend that you employ a social researcher with qualitative research expertise to collect primary data from communities to understand their responses to potential socio-economic changes resulting from the development.

Annex 1: General Advice for Socio-Economic Impact Assessment
Science, Evidence, Data and Digital (SEDD[2])
Marine Directorate
September 2023

This document sets out some suggestions for delivering socio-economic impact assessment drawing on the professional expertise of the Science, Evidence, Data and Digital (SEDD), Marine Directorate.

Section 1. Some general best practice tips

- Take a proportionate approach to SEIA in line with the size and generating capacity 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 the 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 SEDD 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 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

[2]As a result of the organisational development in 2023, Marine Scotland has been re-named to Marine Directorate, and Marine Analytical Unit (MAU) was merged with Marine Science to form Science, Evidence, Data and Digital (SEDD) delivery area. This advice on socio-economics comes from what used to be the MAU team.

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 you wish 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 socio-economic 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 socio-economic 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
- 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[3]

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 (eg 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;
- public and private;

[3] 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

- 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, 2019	Annual economic statistics publication including GVA and employment data for marine economy sectors.	Scotland's Marine Economic Statistics 2019 - gov.scot (www.gov.scot)

Scottish Sea Fisheries Statistics, 2021	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.	Summary - Scottish Sea Fisheries Statistics 2021 - gov.scot (www.gov.scot)
Scottish Shellfish Farm Production Survey 2021	Statistics on employment, production and value of shellfish from Scottish shellfish farms.	Scottish Shellfish Farm Production Survey 2021 - gov.scot (www.gov.scot)
Scottish Annual Business Statistics 2020	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.	Scottish Annual Business Statistics 2020 - gov.scot (www.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)
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: Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects

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)

Marine Directorate – Science, Evidence, Data and Digital

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21 December 2023

SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion

Marine Directorate advisers have reviewed the request from MD-LOT and provide the following advice.

Commercial fisheries

General

Given the turbines will have fixed foundations MD-SEDD advise consultation with the fishing industry to determine if smaller or larger turbine spacing is preferable, and to consider a wind farm configuration that will facilitate coexistence with commercial fisheries.

The fishing activity of the under 10m fleet is the area of greatest uncertainty, with the data used in the scoping report suggesting significant landings of crab from creel fisherman within the study area, but no data on the location of their potting grounds. MD-SEDD note that consultation has been identified as an important method of determining the under 10m fleets' fishing activity, but limited consultation has taken place so far, with commercial fisheries not included in the scoping workshops. MD-SEDD advise that consultation with the industry is

carried out as early as possible to fill this data gap, alongside the use of the recently published under 12m gridded data which is linked in the data sources section.

Impact pathways

The potential effect of “Increased steaming times to fishing grounds” has been scoped in for the construction and decommissioning phases, but scoped out for operation and maintenance. MD-SEDD advise this is scoped in for operation and maintenance phase too. The justification for why it has been scoped out does not explain why the impact from safety zones will be minimal, or why this will be different compared to other phases. There is also no mention of the turbines acting as a physical barrier for vessel steaming routes.

MD-SEDD advise that the potential effect of disruption to fishing activity (e.g. due to increased vessel traffic) is included within the assessment, as this should be assessed separately to the exclusion from fishing grounds and displacement of fishing vessels.

MD-SEDD note that the potential effect “safety issues for fishing vessels” is included for the construction and decommissioning phases, but has not been included for the operation and maintenance phase. Instead “Physical presence of infrastructure on the seabed post construction” has been listed as an effect. MD-SEDD advise this is renamed to “safety issues for fishing vessels” to match the other phases, as the presence of infrastructure is not the effect, instead being one of the causes of safety issues.
Furthermore, MD-SEDD advise clarification of the effect “Accidental damage, including to subsea cables” as it is unclear what or who the receptor is and how it differs from the effect of safety issues for fishing vessels.

Assessment methodology

MD-SEDD advise undertaking a fisheries displacement assessment in the EIA and referring to the ‘Good practice guidance for assessing fisheries displacement by other licensed marine activities’ (Xodus, 2022).

Approach to cumulative effects assessment

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 developments that could cause cumulative effects for commercial fisheries.

Data Sources

The development appears to have a low level of overlap with the fisheries for which there are spatial data available. MD-SEDD recommends additional sources of spatial fishery data to supplement those already cited in the scoping report.

- To get a more detailed picture of the inshore fisheries, especially for vessels 12m of length and under use the gridded fisheries data layers available at NMPI:
  - Fishing - Scottish Under 12m vessels - Annual average value (2017-2021) of Pots and Traps (£) | Marine Scotland Information
  - Fishing - Scottish Under 12m vessels - Annual average value (2017-2021) of Bottom Trawls (£) | Marine Scotland Information
  - Fishing - Scottish Under 12m vessels - Annual average value (2017-2021) of Dredges (£) | Marine Scotland Information
  - Fishing - Scottish Under 12m vessels - Annual average value (2017-2021) of Rod and Lines (£) | Marine Scotland Information
  - Fishing - Scottish Under 12m vessels - Annual average value (2017-2021) of Other gears (£) | Marine Scotland Information

- More detail on fishing activity and fishing vessel transit routes can be obtained from the EMODnet AIS data sets. These AIS spatial layers include route density and vessel density. These sets identify fishing vessels without categorising the type of fishing undertaken but can serve to identify where fishing activities occur. The EMODnet data viewer for can be found here: EMODnet Map Viewer (europa.eu)

- It would be more pertinent to use a more up to date layer to describe the mackerel pelagic fishery. Although a good indicator of fishing spatial activity the *Kafas* layers were created with VMS data from 2013 so are out of date. It would also be useful to include information on herring fisheries as previously there has been activity in the vicinity of the site in question.

Physical environment / coastal processes

Yours sincerely,

Renewables and Ecology Team

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22 January 2024

SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion

Marine Directorate advisers have reviewed the request from MD-LOT and provide the following advice.

Physical environment / coastal processes

The Marine Directorate for Science, Evidence, Data and Digital (MD-SEDD) has reviewed the physical processes focusing on changes in tidal and water column processes. Below are responses to the questions posed by the potential applicant.

1. *Do you agree that the data sources identified, and surveys proposed are sufficient to inform the Physical and Coastal Processes baseline for the EIA?*

MD-SEDD advise the use of existing 3D model output to describe the physical water column in the study area. Daily mean (or hourly) output of temperature and salinity should be used to describe stratification (magnitude, extent, timing) and hourly current speed data should be used to describe flow conditions. The northwest European shelf reanalysis model runs available on Copernicus Marine (e.g. https://doi.org/10.48670/moi-00059 and https://doi.org/10.48670/moi-00054), or Scottish Shelf Model

(https://marine.gov.scot/themes/scottish-shelf-model) would be sensible model choices. Note there is a climatology available from the Scottish Shelf Model (widely used by the aquaculture industry) which could be used, but there is also a 27 year reanalysis available from the Scottish Shelf Waters Reanalysis Service (https://tinyurl.com/SSW-Reanalysis) that can be used to study inter-annual variability (and how this might compare with potential impacts).

2. *Have all receptors and potential likely significant effects that could result from the Project been identified? (Noting that the majority of effects discussed within the chapter will be pathways that will be used to inform other chapters)*

The potential impacts identified in Table 6.1-3 are all relevant and should be scoped into the EIA. The impacts all appear to focus on impacts to bed sediments, e.g. bed morphology changes and sediment transport. MD-SEDD advise that water column and wave processes should also be considered for the operational phase. MD-SEDD advise that potential change to the wave field should be considered in the EIA, as should potential change to mixing, stratification and frontal positions. The scoping report examines frontal positions and stratification and this should be built on in the EIA. MD-SEDD advise the site appears be in an intermittently stratified region, and the wind farm is unlikely to significantly change stratification (extent, timing and magnitude) compared to natural variability and projected climate driven changes, but this should be assessed in the EIA non-the-less.

3. *Do you agree with the proposed approach to assessment, and the methods specified are acceptable for the Project?*

MD-SEDD consider the proposed approaches outlined in Section 6.1.6.4 to be broadly proportionate but request further information in the following to enable a better understanding and determine if the methods specified are acceptable.

- MD-SEDD request more information be supplied on the "*semi-qualitative assessment of wave and sediment transport…*". For example how are the numerical models being used, and is the proposed wind farm being modelled?
- Are the spreadsheet based tools for modelling the sediment plumes arising from construction able to model the directional dispersion of sediment, e.g. can this method be used to predict changes in bed sediment composition in areas of importance to benthic ecology?

4. *Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on key receptors? Are there any additional mitigation measures you would include?*

MD-SEDD agrees with the embedded mitigation measures proposed.

Yours sincerely,

Renewables and Ecology Team

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2 February 2024

Spiorad na Mara - Scoping consultation – NatureScot Query

Marine Directorate advisers have reviewed the request from MD-LOT and provide the following advice.

Diadromous fish

NatureScot included most of the key up to date published references relating to the migratory pathways and migration speed of Atlantic salmon relevant to the proposed construction and operation of Spiorad na Mara wind farm. MD-SEDD recommend one additional reference below.

Kennedy, R., Rosell, R., Hunter, E., & del Villar-Guerra, D. (2023). Programmed acoustic tags reveal novel information on late-phase marine life in Atlantic salmon, *Salmo salar*. Journal of Fish Biology, 102(3), 707–711. https://doi.org/10.1111/jfb.15292

A lot of work relating to the coastal movements of salmon smolts on the west coast of Scotland is yet to be published from a number of studies including the West Coast Tracking Project, COMPASS and SEAMonitor. MD-SEDD recommend contacting these groups for

more upto date information, specifically researchers at the University of Glasgow and the Atlantic Salmon Trust

Yours sincerely,

Renewables and Ecology Team

Marine Directorate – Science, Evidence, Data and Digital

Maritime & Coastguard Agency

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15 December 2023

Dear Sir/ M'am

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 AND MARINE LICENCE APPLICATIONS FOR THE SPIORAD NA MARA OFFSHORE WIND FARM LIMITED - UNDER THE EIA REGULATIONS.

The MCA has reviewed the scoping report provided by Spiorad Na Mara Offshore Wind Farm Limited as detailed in your correspondence of 19th October 2023 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. Attention needs to be paid to routing, particularly in heavy weather so that vessels can continue to make safe passage without large-scale deviations.

A Navigational Risk Assessment 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 https://www.gov.uk/guidance/offshore-renewable-energy-installations-impact-on-shipping

A vessel traffic survey will be undertaken to the standard of MGN 654 – at 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 understand from the information presented in section 6.10.6.1 that a full traffic survey will be undertaken as per MGN-654 standards using a shore-based radar.

The Development Specification and Layout Plan (DSLP) 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.

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.

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.

If HVDC cables are being considered as the export cable, 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 may 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).

We would like to point out that the scoping document refers to AISy data- AIS is a standard term used across the maritime industry and would like to point out that the project continues to use standardised maritime terminology and abbreviations within the Shipping and Navigation documents.

MGN 372 (2008), referred in section 6.10.4 and 6.10.8 is superseded by MGN 372 Amendment 1 (2022).

Section 6.10.7, Scoping Questions to Consultees Regarding the Shipping and Navigation Chapter 1. Do you agree that the Shipping and Navigation Study Area, data sources identified (Table 6.11-1) and the proposed site-specific vessel traffic surveys are sufficient to characterise the Shipping and Navigation baseline for the EIA (and therefore that no further baseline data collection is merited)?

- Yes.
2. Are there any additional or specific organisations which should be included in the consultation outreach?
- No, any further consultation if required will be identified during the NRA/ HAZID stages.
3. Have all the potential likely significant effects resulting from the Project been identified for Shipping and Navigation users?
- Yes.
4. Is the EIAR methodology for Shipping and Navigation appropriate for assessing the potential likely significant effects resulting for the Project?
- Yes.

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 faithfully,

[redacted]

Vinu John
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UK Technical Services Navigation

Ministry Of Defence

Defence Infrastructure Organisation

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Lichfield
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Telephone [MOD]: [redacted]

E-mail: teena.oulaghan100@mod.gov.uk

Your Ref: SCOP-0032

Our Ref: DIO10060542

Marine Scotland
Scottish Government
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

By email only

15 February 2024

Dear Sir / Madam,

Regulation 14 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the MW EIA Regulations") Regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EW EIA Regulations") (Collectively referred to as "the EIA Regulations").

Thank you for consulting the Ministry of Defence (MOD) on the above Scoping Opinion request in respect of the Spiorad na Mara Offshore wind farm development. The consultation was received by this office on 19 October 2023. 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, and technical sites or training resources such as the Military Low Flying System.

This scoping report covers all aspects of the project required to generate and transmit electricity from the array area to the grid point of connection at the planned Scottish and Southern Electricity Networks (SSEN) Converter Station. The proposal seeks consent to develop the Array Area, the Offshore Cable Corridor Area of Search, the landfall and Landfall Substation Area of Search, the Onshore Cable Corridor Area of Search and the Grid Substation Area of Search for the Spiorad na Mara Offshore wind farm, which are the subject of this Environmental Impact Assessment (EIA) Scoping Report prepared by the applicant.

The Array will be located approximately 5km off the west coast of the Isle of Lewis and will comprise of the following infrastructure components: a maximum of 66 wind turbine generators (WTGs) (each comprising a tower section, nacelle and 3 rotor blades, and associated support structures and foundations) with a maximum blade tip height of 380 metres to mean sea level (MSL), up to three offshore substation platforms (OSPs), array cables linking WTG's to OSP's, interconnector cables

between OSP's, 2-3 export cables from OSP to Transition Joint Bays (TJB) at landfall, 2-3 onshore export cables from TJB to grid substation, a grid substation and 2-3 onshore export cables linking grid substation to SSEN Converter station.

The EIA scoping report relates to both the offshore array and onshore infrastructure and recognises some of the principal defence issues relevant to MOD consideration of the proposed development.

The use of airspace in the vicinity of the proposed development for defence purposes has been appropriately identified in Chapter 6.11.3.2 of the scoping report.

The Scoping Report highlights some of the aviation and radar systems that may be affected by the proposed wind farm and the MOD is identified as a relevant receptor in Chapter 6.11 Military and Civil Aviation.

The report identifies that the proposed turbines have the potential to affect and be detectable to Primary Surveillance Radars (PSR), both military and civilian systems, in the wider region, RAF Lossiemouth has been acknowledged and identified as out of range, the MOD agree. In Table 6.11-2 of the scoping report, it notes that the development has no potential to have an impact on the operation and capability of the PSR radar systems.

The Air Defence Radar (ADR) at Remote Radar Head (RRH) Benbecula has been acknowledged at Chapter 6.11.3.2 but the impact of the development on the ADR at RRH Benbecula has not been scoped in within Table 6.11-2. The impact on this radar should be considered in the preparation of any application for this scheme. The impact on radar systems will require technical mitigation(s) which would need to be provided by the applicant and accepted by the MOD.

Impact on military activity has been recognised in Chapter 6.11.3.2 as the developer has identified Danger area D701 which is used for a number of purposes including aerial towed targets, unmanned aerial vehicle operations, gunnery and calibrated firing and trials. The range operator is correctly identified as Qinetiq, who have confirmed there are no concerns with this proposed development.

The potential presence of UXO and disposal sites is also a relevant consideration to the installation of cables and other intrusive works that may be undertaken in the maritime environment.

In Chapter 6.11.4 of the scoping report the requirements to facilitate safe visual flight, day or night in the vicinity of WTG's are outlined. In this case, the development does not impact the military low flying systems or any managed Danger Areas. The applicant has considered charting the development, which the MOD would request, and in the interests of air safety, the MOD would also request that the development be fitted with MOD accredited aviation safety lighting in accordance with the Civil Aviation Authority, Air Navigation Order 2016.

In relation to the onshore element of the proposed development, the MOD has no concerns as the onshore cable and grid substation area of search will not be affected by any statutory safeguarding zones.

At 6.11.2, Met Office radars are listed as being safeguarded by the MOD through DIO. We no longer safeguard meteorological radars on behalf of the Met Office, they now undertake this role themselves. It is recommended that the applicant contacts the Met Office directly to confirm if the development will impact any of the Met Office radars. They can be contacted at safeguarding@metoffice.gov.uk

I trust this is clear however should you have any questions please do not hesitate to contact me.

Yours faithfully

Teena Oulaghan
Safeguarding Manager

National Trust for Scotland

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The National Trust for Scotland: Comments to the Marine Directorate on the Spiorad Na Mara Offshore Windfarm Scoping Report

18th December 2023

Summary

The National Trust for Scotland (the Trust) has concerns about St Kilda, Mingulay and Berneray not being included in the Habitats Regulations Assessment (HRA) for Spiorad Na Mara. St Kilda's seabirds are protected under two European designations and it is one of the most important seabird colonies in the North East Atlantic, home to important colonies including Gannets, Leach's Petrels and Fulmar. Mingulay and Berneray are also designated as a Special Protection Area (SPA) for Fulmar and Guillemot and together hold one of the largest Razorbill colonies in the UK.

St Kilda, Mingulay and Berneray are geographically removed from the proposed location for Spiorad Na Mara. The draft Scoping Report suggests the distance of St Kilda from the proposed development means an Environmental Impact Assessment (EIA) will suffice. The draft Scoping Report also suggests that the Mingulay and Berneray SPA is far enough away from the array area as to not require an EIA or an HRA.

However, seabirds from the St Kilda SPAs are known to forage in the Spiorad Na Mara array area, and evidence suggests seabirds from the Mingulay and Berneray SPA are also likely to forage or pass through the array area. Therefore, the Trust believes it is essential St Kilda, Mingulay and Berneray are included in the HRA. This would be in line with the Precautionary Principle.

The importance of including these three SPAs in the HRA is underlined by the vulnerable status of the colonies they contain. Avian flu and climate change are already placing extreme pressure on colonies, as well as other offshore windfarm proposals and developments.

Therefore, we encourage the applicant to expand the HRA area to 10km *plus St Kilda, Mingulay and Berneray.*

The Trust has corresponded with Northumberland Power to raise this concern previously.

St Kilda

The National Trust for Scotland cares for the St Kilda archipelago, the UK's only dual UNESCO World Heritage Site, which is situated around 135km from Barvas. St Kilda supports more than 600,000 nesting seabirds during the breeding season, which is the largest seabird colony in the north-east Atlantic. Of particular significance are the populations of Gannet, Atlantic Puffin and Fulmar, all of which are major strongholds for these species.

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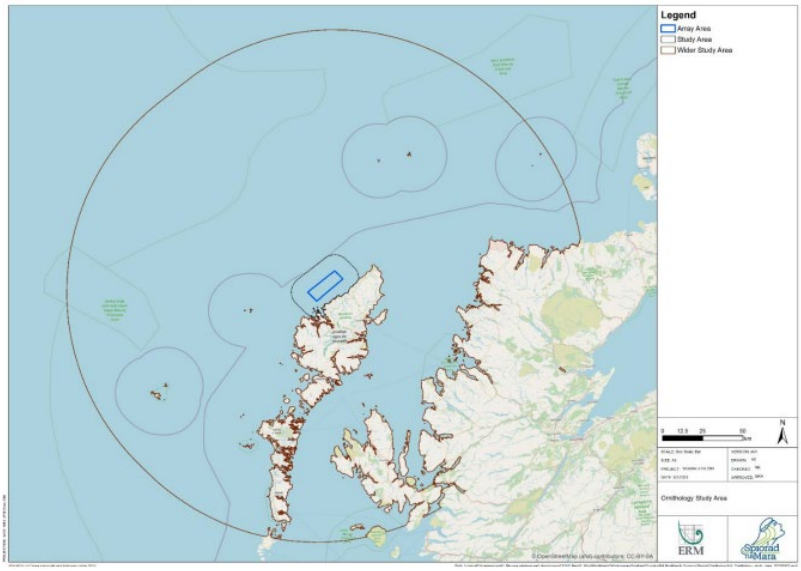
St Kilda's breeding seabirds are covered by two Special Protection Area (SPA) designations:

St Kilda SPA	**Seas Off St Kilda SPA**
Designated for: • Fulmar • Gannet • Great Skua • Guillemot	Designated for: • Gannet • Assemblage of Breeding Seabirds • Fulmar • European Storm-Petrel • Guillemot • Puffin

Inclusion of St Kilda in the HRA

The draft Scoping Report states the HRA will apply to the array area plus a 10 km buffer, and an EIA will take place for the Wider Marine and Nearshore Ornithology Study Area, which captures St Kilda and its designations:



We welcome this effort to cover relevant designations and seabird colonies. However, as data shows St Kilda seabirds pass through, and highly likely, forage in the array area, St Kilda should be included in the HRA as the purpose of this assessment is to fully understand and compensate impacts on designated sites.

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Data suggests that the Spiorad Na Mara area is being used for foraging by St Kilda seabirds. Published tracking data shows St Kilda Gannets forage around the coast of Lewis, including the array area (St Kilda Gannets denoted in yellow):

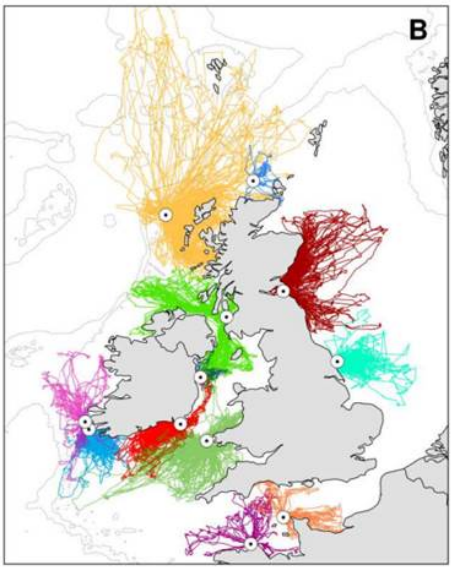

Figure from: Wakefield, Ewan & Bodey, Thomas & Bearhop, Stuart & Blackburn, Jez & Colhoun, Kendrew & Davies, Rachel & Dwyer, Ross & Green, Jonathan & Grémillet, David & Jackson, Andrew & Jessopp, Mark & Kane, Adam & Langston, R. & Lescroel, Amelie & Murray, Stuart & Nuz, Mélanie & Patrick, Samantha & Péron, Clara & Soanes, Louise & Hamer, Keith. (2013). 'Space Partitioning Without Territoriality in Gannets.' Science 341. 10.1126/science.1236077.

This is particularly important data as Gannets are one of the species most affected by offshore windfarms.

The wider context for Gannets gives yet more weight to the need for St Kilda to be included in the HRA. The Neart Na Gaoithe offshore windfarm is currently being developed by Bass Rock, which is, along with St Kilda, one of the largest Gannetries in the world. It is critical we fully understand the likelihood of impacts and severity on St Kilda Gannets of Spiorad Na Mara to ensure we do not accidentally create the conditions for overall Gannet decline.

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Published St Kilda Fulmar tracking data from Summer 2011 also shows some activity near Lewis:

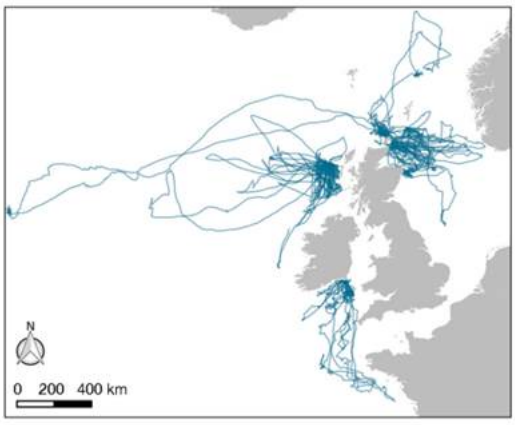


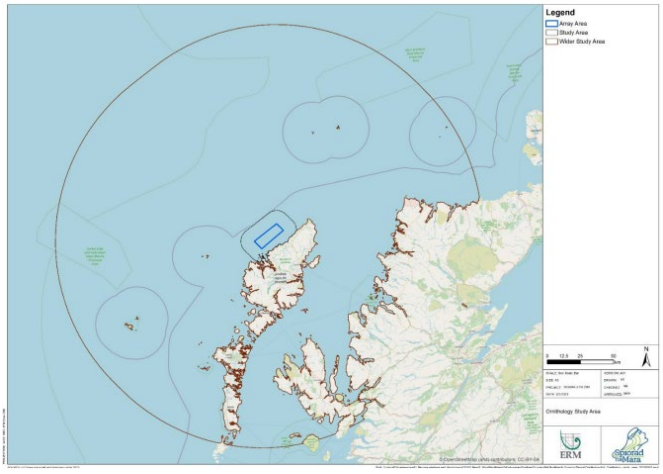
Figure from Edwards, E. PhD Thesis 2015, University of St Andrews 'The breeding season foraging trip characteristics, foraging distribution and habitat preference of northern fulmars, Fulmarus glacialis'.

Leach's Petrels are currently the subject of a tracking study on St Kilda managed by RSPB . Given the rapidly declining status of this population both on St Kilda and internationally even low levels of impact could have a very severe outcome for the species.

The Trust is conscious that data is limited, which in itself is another reason why the SPAs should be considered in the HRA as this will allow a full understanding of the likelihood of impacts and severity.

Inclusion of the Mingulay and Berneray SPA in the HRA

The Trust cares for Mingulay, Berneray and Pabbay which are three uninhabited islands to the South of Barra known for their seabird colonies. The Mingulay and Berneray SPA is designated for Fulmars and Guillemot. The draft Scoping Report shows that neither an HRA or EIA will take place for the Mingulay and Berneray SPA:



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No direct seabird tracking data currently exists data for the Mingulay and Berneray SPA colonies. We are conscious of the distance of the SPA from the array area however feel it should be included in the HRA.

Analysis of data from the European at Sea Surveys shows high concentrations of Fulmars, Guillemots and Razorbills (as well as other species), around the array area in both winter (January) and during the breeding season (July). Although not designated for Razorbills, Mingulay is home to one of the largest colonies of this species.

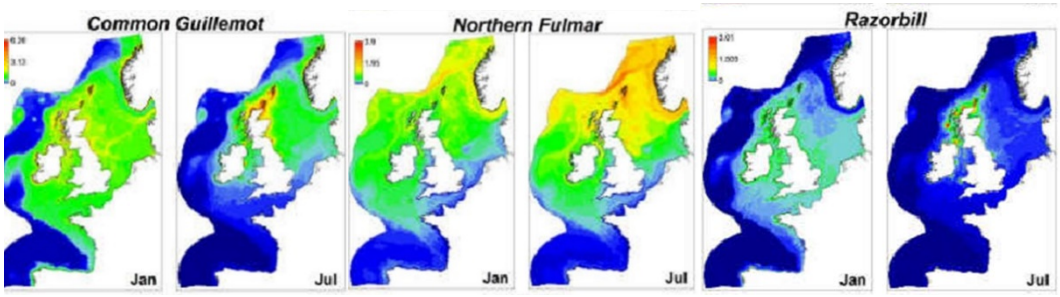

Figure taken from: Waggitt JJ, Evans PGH, Andrade J, et al. 'Distribution maps of cetacean and seabird populations in the North-East Atlantic.' J Appl Ecol. 2020; 57: 253–269. https://doi.org/10.1111/1365-2664.13525

Although these concentrations cannot be attributed to specific colonies, we do know the Mingulay and Berneray SPA is particularly important for these species. This highlights a need to carry out further investigation to fully understand the impact via an HRA. Including the Mingulay and Berneray SPA within the Scoping Report would be in line with the EU Precautionary Principle, which includes an onus to take preventive action in the face of uncertainty (i.e. conduct the research to understand impact) and puts the burden of proof to the proponents of an activity (i.e. this research should be undertaken by the applicant).

In conclusion, data suggests that the Spiorad Na Mara array area is being used by St Kilda seabirds and possibly Mingulay and Berneray). Given their importance and European designations, the impact on those colonies should be fully assessed in an HRA.

Yours sincerely,

Diarmid Hearns

Head of Public Policy, Risk and Environment, National Trust for Scotland

NatureScot

NatureScot
Scotland's Nature Agency
Buidheann Nàdair na h-Alba

Kate Taylor
Marine Directorate – Licensing Operations Team
Scottish Government

18 December 2023

Our ref: CNS / REN / OSWF / N4-Spiorad na Mara – Pre-application

By email only:
MD.MarineRenewables@gov.scot

Dear Kate,

Spiorad na Mara Offshore Wind Farm – ScotWind N4

NatureScot advice on the Environmental Impact Assessment (EIA) Scoping Report

Thank you for consulting NatureScot on the EIA Scoping Report submitted by Spiorad na Mara Limited for the Spiorad na Mara Offshore Wind Farm.

Our advice on the natural heritage interests to be addressed within the Environmental Impact Assessment Report (EIA Report) is outlined below.

The applicant has identified within their consenting strategy (EIA Scoping Report section 1.6) the possibility of seeking deemed planning permission. Our advice therefore covers marine, coastal, and terrestrial natural heritage topic areas.

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. We recognise that this proposal is a lease awarded through the ScotWind process in an area identified through the Sectoral Marine Plan process for Offshore Wind.

Proposal

The proposal uses a project design envelope approach, as such we recommend reference is made to the Scottish Government guidance on this approach[1]. The proposal currently includes two distinct Design Options.

[1] https://www.gov.scot/publications/guidance-applicants-using-design-envelope-applications-under-section-36-electricity-act-1989/

Both Design Options include the following offshore elements:

- up to 66 wind turbine generators (WTGs) with a total generating capacity of approximately 840-1,000 MW;
- a maximum blade tip height of 380m above mean sea level (MSL); and
- currently unspecified fixed WTG foundations;

Design Option 1 includes a landfall substation design and comprises:

- up to 8 array cables linking WTGs;
- landfall for up to 8 array export cables;
- transition joint bays;
- temporary onshore working area of 20,000-40,000 m^2;
- landfall substation of 25,000-50,000 m^2; and
- temporary onshore site compound for landfall substation of 20,000-40,000 m^2;

Design Option 2 includes an offshore substation design and comprises:

- up to 3 offshore substation platforms (OSPs);
- up to 8 array cables linking WTGs to OSPs;
- up to 3 export cables linking OSP to offshore cable corridor;
- up to 2 interconnector cables linking the OSPs together;
- up to 3 export cables linking OSPs to transition joint bays at landfall;
- landfall for up to 3 export cables;
- transition joint bays; and
- temporary onshore working area of 20,000-40,000 m^2.

And finally both Design Options include the following onshore elements:

- onshore cable corridor for 2-3 circuits;
- search area up to 1km wide, centred on A857 for the majority of the route;
- working area up to 100m with localised widening adjacent to the A857
- using a trench width of up to 5m wide;
- a grid substation located < 1km from the SSEN Converter Station, and occupying 25,000-50,000 m^2; and
- temporary working area/ site compound of 20,000-40,000 m^2.

Content of the Scoping Report

We are generally content with the format of the EIA Scoping Report, which is well laid out, easy to navigate and read. However, it presents very limited information for this stage in the application process, and there is little new information on the proposal since the Scoping Workshops in mid-2023.

Cumulative effects are briefly addressed in EIA Scoping Report section 4.4, although no detail is set out. Therefore, we can only provide limited advice on the approach to cumulative assessment of impacts on receptors at this stage. Where possible we have offered broad advice, for example on the use of the Cumulative Effects Framework (CEF) – to be considered for birds and cetaceans.

Similarly transboundary effects are briefly discussed in section 4.5, but little detail is provided on which receptor groups may require an assessment of transboundary effect. Again, we provide direction on this topic where possible.

Assessment approach

The EIA Report should consider the impact of 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.

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 both on and offshore. 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 (and 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 project design and 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 recognise that some aspects of this are addressed in section 9.8 (Climate Change).

Blue carbon

In addition to the climate change assessment mentioned in section 9.8 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 and intertidal ecology to focus on the potential impacts of the proposed development on marine sediments and coastal habitats.

Environmental Impact Assessment Report (EIAR)

The EIA Report provides the assessment to support the application and should be suitability structured, with appropriate formatting 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 on aspects 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.
- 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

Consideration of the first stage of HRA – LSE Screening report has not been provided alongside the Scoping Report, this will be submitted separately. We request that a report is produced and submitted for comment at the earliest opportunity.

Positive Effects for Biodiversity/ Biodiversity Net Gain

We recommend early consideration of potential Positive Effects for Biodiversity as well as nature inclusive design aspects at an early stage and following through into the EIA Report. We acknowledge that, whilst not policy in the marine environment, these aspects form part of our ability to address both the climate and biodiversity crises and as such we encourage developers to consider this as part of their application. For the onshore elements National Planning Framework 4 (NPF4) has an emerging requirement of positive effects for biodiversity.

Mitigation

We welcome the intention to identify 'embedded mitigation' described in each of the relevant sections of the EIA Scoping Report (for example section 6.1.4). 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 proposed development. In addition, we recommend the consideration of positive enhancement measures that could be applied throughout the life span of the windfarm both on and offshore. We advise that the full range of mitigation, monitoring and enhancement measures, and published guidance, are considered and discussed in the EIA Report.

Natural Heritage interests to be considered

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

Offshore topics

- Advice on seascape, landscape and visual impact assessment (SLVIA) and landscape and visual impact assessment (LVIA) is provided in **Appendix A**.
- Advice on marine and nearshore ornithology is provided in **Appendix B**.
- Advice on marine mammals and other megafauna is provided in **Appendix C**.
- Advice on fish and shellfish ecology is provided in **Appendix D**.
- Advice on underwater noise is provided in **Appendix E.**
- Advice on benthic and intertidal ecology is provided in **Appendix F.**

Onshore topics

- Advice on onshore and intertidal ornithology is provided in **Appendix G**.
- Advice on onshore ecology is provided in **Appendix H.**

- Advice on peat, geology, soils and contaminated land is provided in **Appendix I**.

For physical and coastal processes, unfortunately we are unable to provide any specific advice in respect of the landfall or wider physical processes due to staff resourcing. We guide the developers to the following resource – Dynamic Coast[2] which may be of assistance when designing the landfall and associated infrastructure.

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 undertaking 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 – marineenergy@nature.scot.

Yours sincerely

Malcolm Fraser

Marine Sustainability Adviser – Sustainable Coasts and Seas

malcolm.fraser@nature.scot

[2] https://www.dynamiccoast.com/

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix A –Seascape, Landscape and Visual Impact Assessment (SLVIA) and Landscape and Visual impact assessment (LVIA)

Overarching Comments

SLVIA and LVIA are considered in Section 6.13 (SLVIA) and Section 7.1 (LVIA) of the EIA Scoping Report. We provide comments here on both topics due to the intrinsically linked nature of SLVIA and LVIA, this is due to the close proximity of this plan option area to the coastline. The offshore array area (OAA) is located inshore, parallel to the northwestern coast of Lewis, 4.8km at its closest point (Labost), with the furthest edge 13.5km from the Lewis coast.

The EIA Scoping Report contains very limited information for this stage in the process and there is little evidence that the Proposal has developed since the Scoping Workshops in mid-2023. In the absence of an indicative realistic worst-case scenario layout, our comments on landscape and visual considerations are proportionate to, and limited by, the information available. We highlight that the design of a windfarm in this OAA is key to reducing significant effects.

Reference should be made to our 2020 advice to Marine Scotland (as-was), *Sectoral Plan Consultation – NatureScot Landscape and Visual Impact Assessment and Design Guidance*[3] to inform the initial siting and design of WTGs and OSPs within the Spiorad na Mara OAA.

We highlight to Marine Directorate that there is little evidence that the advice we have provided up to this point has influenced the Proposal at this stage, or will influence it as it develops. We reiterate and highlight that any scale of turbine will introduce widespread significant day- and night-time effects on sensitive coastal, landscape and visual receptors.

The EIA Scoping Report includes figures for both offshore and onshore infrastructure including Study Area, designations/ protected landscapes, Landscape Character Types (LCTs), Zone of Theoretical Visibility (ZTV) and a list of 19 draft viewpoints. However, to provide relevant and detailed scoping advice, further information including an indicative realistic worst-case scenario layout and draft supporting wirelines are required.

Design development and iteration

We support the proposed design-led process and iterative design approach and agree that most mitigation of landscape and visual impacts is achieved through embedded mitigation in the siting and design of the layout within the OAA.

We recommend a significant reduction in turbine size, numbers, footprint and layout as follows:

- consider the whole OAA as part of an iterative design approach, but with the focus on developing only part of the OAA;
- consider location/ layout of turbines and OSPs within this part of the OAA; and
- consider smaller turbines.

We advise the layout should appear logical from multiple sensitive receptors (in line with the design ethos of our Siting and Designing Wind Farms in the Landscape guidance[4]). Any gaps/

[3] https://www.nature.scot/doc/sectoral-plan-consultation-summary-and-design-guidance
[4] https://www.nature.scot/doc/siting-and-designing-wind-farms-landscape-version-3a

breaks (planned or otherwise) in the windfarm composition would reduce the clarity and cohesiveness of the wind farm when experienced from coastal and sea-based receptors, potentially increasing levels of effect individually and cumulatively. The SLVIA/ LVIA should identify and clearly demonstrate good design development.

We advise the development of design principles and a design statement, which should refer to the NatureScot Landscape and Visual Impact Assessment and Design Guidance provided by us as part of the 2020 Sectoral Marine Plan for Offshore Wind, and referenced above.

We highlight that assessment of the final realistic worst-case design should be for a layout which reflects a viable/ buildable scenario. While we appreciate that some parameters that may affect the final design/ layout may be uncertain at the application stage, the SLVIA/ LVIA should assess a viable scenario that might be built.

Cumulative effects

For the most publicly up to date information on which existing and consented (and on occasion in-planning) proposals to include in the cumulative impact assessment, we advise contacting the Local Planning Authority for projects to be included in the cumulative assessment with onshore wind energy, and to Marine Directorate- Licencing and Operations Team, for marine industry projects. The application should contain up to date layouts of all relevant offshore and onshore schemes.

SLVIA Scoping questions (from section 6.13.7)

1. Do you agree with the data sources, including project specific surveys, to be used to characterise the SLVIA baseline within the EIA?

We generally support the proposed initial desk-based review of available data sources, however the Regional Coastal Character Areas (CCAs) as defined in the NatureScot Coastal Character Assessment Guidance[5] should be used to inform the SLVIA. It should be noted that this guidance sets out 13 very broad coastal character types. We advise that coastal character assessment is undertaken, related to the overarching ZTV with the appropriate level of detail and seek to remedy any inconsistencies or gaps in the dataset of both the broad coastal character areas and the local coastal character and landscape character units.

We are developing draft Guidance for Assessment of Effects on Special Landscape Qualities of NSAs (and National Parks) with both National Park Authorities. We understand that landscape consultants should already have access to this, however the draft guidance is available upon request.

2. Do you agree that the assessment of the effects on coastal seascape character and landscape character should focus on a 60 km Study Area?

The South Lewis, Harris and North Uist National Scenic Area (NSA) is particularly susceptible to this type of development. Any proposed design iteration must include early consideration of the coastal Special Landscape Qualities (SLQs), including the strong wild character, of this NSA. The

[5] https://www.nature.scot/professional-advice/landscape/coastal-character-assessment

relationship of the array to the NSA and its coast should be a key design objective. The design should also aim to minimise effects on the highly sensitive scenic small-scale settled coast.

Similarly for the areas of search for the onshore elements, we recommend evidence of design development and demonstration of mitigation in relation to both the NSA and the more complex and intricate coast to avoid/ reduce adverse effects. In this context, we reiterate that landfall located to the north, avoiding the more intricate coast and outwith the crofting Landscape Character Types (LCTs) should be explored. While we note the intention is for the cabling to be undergrounded, there may be more scope to integrate new above ground infrastructure located in association with existing development/ road infrastructure. An explanation of options considered to reduce effects should be provided.

3. Do you agree with the proposal to scope out the landscape planning designations where no further assessment is proposed in the SLVIA?

We are content that North-West Sutherland NSA be scoped out from further assessment. Please refer to all other comments in respect of aspects to be scoped in.

4. Do you agree with the proposed list of representative viewpoints identified in Table 6.13-2 and shown on Figure 6.13-2 and Appendix A?

The following issues arise in attempting to identify the relevant viewpoints (VPs):

- the Zone of Theoretical Visibility (ZTV) maps provided in the scoping report blur when zoomed, making it difficult to consider any detail. Appendix A map is of sufficient resolution and helpful for viewpoint (VP) selection;
- the OS basemap should be clearly legible;
- the outline of the National Scenic Area (NSA) and the Wild Land Area (WLA) should be indicated on all maps for ease of reference;
- a map of Landscape character/ coastal character types should include viewpoint locations to allow us to cross reference and ensure representative coverage of VPs; and
- the Viewpoints table should include columns for designation, character type or coastal character type and direction.

Early provision of wirelines from draft viewpoints would be a useful tool to assist as part of the viewpoint selection process. At this stage we recommend the following additions/amendments:

- water-based viewpoints to represent ferries/ boats/ recreational water users including a viewpoint from the Ullapool – Stornoway ferry route, at deck height, from around NB5070 2700. This represents the first experience of the island for most visitors, and a viewpoint experienced by the majority of local people;
- a viewpoint capturing effects on the NSA's distinctive wild mountainous character (its scale and relationship with the sea are highlighted) – an SLQ within the NSA – comprising a view out to the N4 and OAA site. Initial wirelines could be used to inform the preferred location; and
- the summit of Clisham (the highest point on the Isle of Harris).

We advise that night-time viewpoints should be selected in accordance with our *Visual Representations of Windfarms* guidance[6].

5. Do you agree with the approach to the assessment of visible aviation lighting?

Our *Pre-application Guidance for Onshore Wind Farms*[7] provides useful context and advice relevant to all proposals, including offshore proposals, particularly for aviation lighting.

Lighting Guidance

The effects of WTG navigation and aviation lighting should be assessed in alignment with our current guidance on assessment of turbine lighting (referenced above). This provides current advice on assessing lighting impacts, as an interim step towards production of the Scottish Government Working Group Guidance, which is still ongoing.

ZTVs should be provided for lights at all heights.

We take this opportunity to highlight that landscape/ seascape effects should include assessment of effects on the perceptual qualities or attributes including, for example, sense of wildness, remoteness or seclusion, 'frontier' qualities and dark sky character.

6. Do you agree that all pathways, receptors, and potential likely significant effects have been identified for SLVIA?

We offer the following advice on table 6.13-3 which describe impacts to be scoped in/ out of SLVIA:

- Table 6.13-3, p393, Row 3 – the applicant proposes to scope out 'Impacts of the construction and decommissioning of the offshore elements of the Project on physical aspects of landscape character'. We advise this should be scoped in, as 'the impact on the perception of character and qualities' should be assessed;
- Table 6.13-3, p396, Row 3 – the applicant proposes to scope out 'Impact of the operation and maintenance of the Project on the views experienced by offshore visual receptors'. We advise this should be scoped in. The change of the seascape from undeveloped open water to a wind farm will incur a significant amount of change. This will be experienced by a range of sensitive offshore receptors including recreational watercraft users and visitors/ residents on boats on boats in this area;

We are content that North-West Sutherland NSA be scoped out from further assessment. *7. Do you agree with the Project impacts which have been scoped out of the EIA for SLVIA?*

See comments above

8. Do you agree that transboundary impacts for SLVIA may be scoped out of the EIA?

Yes.

9. Do you agree with the proposed approach to assessment?

[6] https://www.nature.scot/sites/default/files/2019-09/Guidance%20-%20Visual%20representation%20of%20wind%20farms%20-%20Feb%202017.pdf
[7] https://www.nature.scot/doc/naturescot-pre-application-guidance-onshore-wind-farms

Noting our comments above, we are generally in agreement of the proposed methodology for LVIA, SLVIA and CLVIA outlined in the SR in that it reflects and takes cognisance of current good practice. We support the intention to carry out separate LVIA and SLVIA incorporating a section on 'in-combination' effects of the whole project.

LVIA Scoping questions (from section 7.1.7)

1. Do you agree with the data sources, including project specific surveys, to be used to characterise the LVIA baseline within the (Onshore) EIA?

Yes. Please see our response to SLVIA Scoping Question 1.

2. Do you agree that the assessment of the effects on landscape character should focus on the LVIA Study Area as defined in Figure 7.1-1?

The proposed study area is dependent on the onshore cable corridor being entirely undergrounded, whereas the project envelope has not entirely ruled out a requirement for overhead lines. This carries a risk that the worst-case scenario is not assessed and that additional information is required later in the application process.

If it is determined that overhead lines are not required, and the entire onshore cable route is underground, then we agree that the proposed study area is adequate.

3. Do you agree with the approach to cumulative assessment?

Please see our response to SLVIA Scoping Question 8.

4. Do you agree that all pathways, receptors, and potential likely significant effects have been identified for LVIA?

We offer the following advice on table 7.1-2 which describe impacts to be scoped in/ out of LVIA:

- Table 7.1-2, p419, Row 2 - the applicant proposes to scope out 'Construction and decommissioning phase landscape, and visual impacts of the Onshore Infrastructure of the Project outside the LVIA Study Area'. We advise this should be scoped in, and that this assessment should include consideration of above ground compounds where the cables re-surface; and

Table 7.1-2, p422, Row 1 - the applicant proposes to scope out 'Operation and maintenance phase landscape and visual impacts of the Onshore Infrastructure of the Project outside the LVIA Study Area'. We advise this should be scoped in, and we request that if any changes occur to this aspect of the Proposal, the study area is reviewed and we are further consulted in advance of any consent.

LVIA - Key Sensitivities

The South Lewis, Harris and North Uist National Scenic Area (NSA) is particularly sensitive to windfarm development. We advise early consideration of the coastal Special Landscape Qualities (SLQs), including the strong wild character, in any design iteration. The relationship of the array to the NSA and its coast should be a key design objective. The design should also aim to minimise effects on the highly sensitive scenic small scale settled coast.

South Lewis, Harris and North Uist NSA and Harris-Uig Hills Wild Land Area.

In the context of NPF4, we can confirm that a Wild Land Assessment will not be required for WLAs within the Study Area. However, where WLAs and NSAs overlap, the Assessment of Effects on Special Landscape Qualities (AESLQ) assessment should draw on underlying attributes and responses of the WLA, to inform a single assessment.

We advise that the AESLQ should draw on baseline information that forms part of the WLA Description. The WLA Description includes very helpful and relevant information about wildness character and the influence of the sea, for example Quality 1 *'A rugged west coast with awe-inspiring landform features, that combine with the sea to increase remoteness and the perceived naturalness and extent of the area*'. These qualities/ characteristics are further amplified by the SLQs of the NSA.

We support detailed assessment of effects on the South Lewis, Harris and North Uist National Scenic Area (NSA) in accordance with our draft *Assessment of the Effects on Special Landscape Qualities* (AESLQ) guidance. We advise early consideration of the coastal SLQs (including the strong wild character). As noted in the SR, '*The wild mountainous character'* is defined as a Locational Specific Quality within the NSA. Perceptual attributes including the strong wild character, strong dark sky character and strong frontier qualities (to the north and west) are integral components of the area and should be given due cognisance at an early stage with the aim of mitigating significant effects.

5. Do you agree with the Project impacts which have been scoped out of the LVIA?

Please see our response to LVIA Scoping Question 4, above.

6. Do you agree with the proposed approach to assessment?

Please see our response to SLVIA Scoping Question 9.

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix B – Marine and nearshore ornithology

Marine and nearshore ornithology is considered in Section 6.7 of the EIA Scoping Report. Scoping Questions are set out in Section 6.7.7 and we respond to these first, with further detail provided below.

Scoping questions

1. Do you agree that the data sources identified are sufficient to inform the Marine and Nearshore Ornithology baseline for the EIA (and therefore that no further baseline data collection, beyond completion of the scheduled digital aerial surveys, is merited)?

Yes, although as previously advised during the scoping workshop, third-party data should be used for context only, and up-to-date sources should be used e.g. Seabirds Count, 2023.

2. Do you agree with the use of Woodward et al. (2019), or site specific, where available and if greater than Woodward et al. (2019), foraging ranges for Marine and Nearshore Ornithology?

We support the use of Woodward et al. (2019) for defining foraging ranges. Note there are some specific caveats detailed in Annex A of this Appendix which provides a summary of our guidance note.

3. Have all Marine and Nearshore Ornithology receptors and potential likely significant effects that could result from the Project been identified?

We advise that no potential receptor species should be scoped out based on a single year of data. All survey work must be completed before deciding which species are taken forward for assessment. See our detailed advice below on impacts to be scoped in/ out.

4. Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Marine and Nearshore Ornithology?

Again, see our detailed advice below on the proposed approach to assessment.

5. Do you agree with the proposed modelling approaches, including the proposed models being used (CRM, displacement matrices/SeabORD, apportioning, and PVA)?

Yes we agree with the proposed approach to assessment and the modelling tools set out in the scoping report. Although please note that Option 3 for sCRM is no longer required.

6. Do you agree that the model-specific parameters highlighted above, as taken from NatureScot (2023) guidance, are appropriate for use; and do you have any further recommendations for model-specific parameters?

Yes, in general we agree with the model-specific parameters presented, however our detailed advice below notes some exceptions.

7. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Marine and Nearshore Ornithology receptors?

The embedded mitigation measures presented are suitable. However, there is scope for additional mitigation measures as described in our detailed advice below.

8. Are there any anticipated changes/additions to the MPA network or coastal SPAs and Ramsar Sites, or any updates to site assessments, within the next 12 months that may be relevant to the Project?

No changes or additions to the Scottish SPA network is anticipated. Site assessments could be published within the next 12 months but are unlikely to significantly impact the assessment.

The HPAI outbreak has affected colonies and species to varying levels. NatureScot are still considering how to take into account the effects of HPAI in relation to development proposals.

9. Are any site-level or pressure-related research projects that are due to be published within the next 12 months that may be relevant to this specific project or offshore wind in general?

We are aware of the following relevant tools/ reports that are likely to publish within the next 12 months:

- publication of the Cumulative Effects Framework;
- the development and publication of the Migratory CRM tool;
- an update to demographic rates (Horswill and Robinson) is expected in Spring 2024; and
- an update to our CRM advice on avoidance rates. This will be updated following the recent publication of the Ozanlav-Harris (2023) report.

Study area

The Offshore Development Area of Search is defined as the Array Area plus a 10km buffer, which aligns with the scope of the site-specific Digital Aerial Survey (DAS) campaign. The EIA Scoping Report also defines a regional 'Wider Marine and Nearshore Study Area' which uses an arbitrary 150km buffer around the Array Area. We do not support the use of an arbitrary buffer in defining this study area and advise Marine Directorate that this is an inadequate method of determining connectivity for EIA.

Connectivity for both the EIA and the HRA should be determined using Woodward et al., 2019 foraging ranges (Mean max +1SD), see Annex A for exceptions to this. Using the 150km buffer approach results in the scoping in of SPAs with features which are unlikely to have any biological connectivity e.g. West Coast of the Outer Hebrides SPA and scopes out SPAs with features which are likely to have connectivity e.g. Mingulay and Berneray SPA. The use of an arbitrary buffer does not reflect biological realism and consequently should not be used to underpin the screening of SPAs for either EIA or HRA. Our position on the study area and connectivity to designated sites was presented at the relevant Screening Workshop in May 2023, but is not reflected in this EIA Scoping Report.

Baseline characterisation

Site-specific surveys

The applicant has commissioned a DAS programme of 24 months (beginning in March 2022) for the array area and the 10km buffer. No additional details of the DAS methodology are provided so we cannot provide advice on the suitability of the surveys for the assessment.

Data sources

The applicant presents data sources in Table 6.7-2, and notes that due to the age or location of these data that they will be used for context only and will not be presented in the quantitative assessment. We support this approach.

We note however that Mitchell et al., 2004 is presented to be used for distribution maps and regional population estimates. We advise that this source has been superseded by the recently published Seabird Count (Burnell et al., 2023) which should be used instead, as this presents the most recent seabird census in Britain and Ireland[8].

In addition, the following sources should be consulted:

- Woodward et al., 2023 Migratory bird review[9] and WWT & MacArthur Green, 2014 for those species not covered by the Migratory review.
- Buckingham et al., 2022[10]

Regional SPAs with marine components

As noted above, we advise against the proposed approach to developing a regional SPA list based on a 150km arbitrary buffer (Figure 6.7-2). As per our advice at the Scoping Workshop, the map presented (Figure 6.7-2) omits Priest Island SPA which is both within the 150km arbitrary boundary and also within foraging range for Storm petrel.

We note the intention to screen for HRA separately.

Project specific data

The first year of surveys have been completed and the following species were recorded at the site:

- Auks (puffin, guillemot and razorbill)
- Northern fulmar
- Common eider
- Great northern diver
- Manx shearwater
- Northern gannet
- Kittiwake
- Arctic tern
- European shag

Other species such as common terns and gull species were recorded but in low numbers (fewer than 20 individuals).

We note that small numbers of shearwaters and petrels were recorded however these low results could be due to survey methods rather than an absence of the species.

[8] Note that there are limitations of this census due to HPAI, but caveats are reported in the publication.
[9] https://www.gov.scot/publications/strategic-study-collision-risk-birds-migration-further-development-stochastic-collision-risk-modelling-tool-work-package-1-strategic-review-birds-migration-scottish-waters/pages/3/
[10] Buckingham, L., Bogdanova, M.I., Green, J.A., Dunn, R.E., Wanless, S., Bennett, S., Bevan, R.M., Call, A., Canham, M., Corse, C.J. and Harris, M.P., 2022. Interspecific variation in non-breeding aggregation: a multi-colony tracking study of two sympatric seabirds. Marine Ecology Progress Series, 684, pp.181-197.

Third party regional data

The applicant presents information from additional data sources and notes that these will be used for context only, which we accept.

We advise the applicant that caution should be applied when interpreting the results of these surveys. For example, Spaceport 1 data was investigated and the applicants note that; '*Relatively few seabirds were recorded in the project-specific surveys (AquaTerra, 2021), including red-throated diver Gavia stellata and great northern diver (also known as common loon) Gavia immer, European shag, Arctic tern, and common gull.*' (EIA Scoping Report page 241). However, we advise that the Spaceport 1 data was collected by walk over surveys so we would not necessarily expect any of the divers or European shag to be robustly surveyed using these methods. Therefore, interpretation of these results must be carefully considered with reference to the current project.

Migratory birds

It is not clear from the EIA Scoping Report section 6.7.3.8 how impacts on migratory birds will be assessed, either alone or in-combination with existing terrestrial and offshore wind farms which must be considered.

This section lists species which overlap the study area in the context of migratory routes. Key in this in terms of the flyway from Scotland to Greenland/Canada via Iceland are the following species:

- whooper swan;
- Greenland white-fronted goose;
- Icelandic Greylag goose; and
- great northern diver (not identified).

Greenland white-fronted goose is of significant conservation concern as it has unfavourable conservation status. The population is subject to an AEWA Flyway International Plan[11] and as such it must be considered a highly important and sensitive receptor, and any impacts on this population requires thorough assessment, using latest population data.

The Icelandic greylag goose population has undergone recent declines. As a result its conservation status has been changed and an AEWA single species management plan is being developed. This is primarily to manage sustainable hunting take in the UK but recent associated satellite tagging has shown some birds pass through Lewis, therefore any assessment of migratory greylag impacts will relate to this population.

Great northern diver occurs along the west coast of the Outer Hebrides as a migrant, sometimes in quite large numbers. These are likely additional birds to those wintering in the West of the Outer Hebrides SPA.

Consideration of these species should take account of the recently published ScotMER report[12] . We are also aware there is an additional work package undertaking migratory species stochastic

[11] https://www.unep-aewa.org/en/publication/international-single-species-action-plan-conservation-greenland-white-fronted-goose-ts

[12] https://www.gov.scot/publications/strategic-study-collision-risk-birds-migration-further-development-stochastic-collision-risk-modelling-tool-work-package-1-strategic-review-birds-migration-scottish-waters/

collision risk modelling – the results from this report should be used if published prior to undertaking any assessment.

Potential impacts

EIA Scoping Report Table 6.7-6 sets out the key impact pathways of displacement and disturbance, collision risk, habitat loss and impacts to prey species, all of which have been scoped in, along with impacts from artificial lighting. The impact pathways scoped in are appropriate and those scoped out (entanglement) can be sufficiently managed with embedded mitigation.

Approach to assessment

Policy, legislation, and guidance

EIA Scoping Report section 6.7.6.3 presents relevant guidance, which includes the recently published suite of NatureScot Guidance notes. However we note that Guidance Note 2 (baseline characterisation) is not listed here. Guidance note 10 (apportioning) is listed here, this is not currently available. However, we expect that it will be available within application timescales. If it is not available, the interim guidance should be used in its place.

Thaxter et al. (2012) is listed in this section, however this paper has been superseded by the Woodward et al. (2019) report (also listed) and therefore should not be used to underpin foraging ranges.

Assessment methodology – apportioning

The applicant states that they intend to follow NatureScot guidance[13] with respect to apportioning of impacts.

The approach presented in the worked example (Table 6.7-9) is broadly appropriate, however it should be noted that in this example 20 birds which have been identified to the common guillemot/razorbill level (rather than species level) are then being apportioned to Atlantic puffins, as well as razorbills and common guillemots. This approach incorrectly apportions unidentified guillemots and razorbills to puffin abundances. Instead, the apportioning of unidentified guillemots/ razorbills should be to either common guillemot or razorbill only. If the common guillemot/razorbill group contains Atlantic puffins, then it should be counted as Auks.

Assessment methodology – collision risk

The applicant notes an intention to follow the NatureScot Guidance Note 7[14] when conducting their collision risk assessment. We support this and the intention to use the sCRM tool. We advise that we no longer require Option 3 models to be run, only Option 2. We will be updating our guidance shortly to reflect this change in our advice. However, we do still expect deterministic outputs for each collision risk species as well as stochastic outputs for Option 2.

The avoidance rates presented in the EIA Scoping Report are taken from our guidance note, however the applicant should note that we are currently reviewing our avoidance rate guidance in

[13] https://www.nature.scot/doc/interim-guidance-apportioning-impacts-marine-renewable-developments-breeding-seabird-populations

[14] https://www.nature.scot/doc/guidance-note-7-guidance-support-offshore-wind-applications-marine-ornithology-advice-assessing

light of the Ozsanlav-Harris et al., (2023) review. Some avoidance rates may change prior to the submission of the EIA.

The applicant intends to use generic data for the parameters for sCRM which we support. We note that if possible they may present additional data and we confirm that we accept the inclusion of additional data where appropriate.

EIA Scoping Report page 259 also notes that if estimated collision mortality exceeds the threshold then PVA will be undertaken. We advise that PVA should be undertaken where the assessed effects exceed a change to the adult annual survival rate of 0.02 percentage point change.

Regarding parameters for CRM (Table 6.7-10), the nocturnal activity scores for cormorant and fulmar should be devised as per Garthe and Huppop, 2004, where cormorant would be a factor of 1 (0%), and fulmar would be a factor of 4 (75%). The nocturnal activity factor for shag should use cormorant as a proxy.

The nocturnal activity factor presented for all gull species is a median value (plus the SD) of the range presented within our guidance note. We are content with this approach as long as it captures the range presented.

Common tern parameters should be developed as follows; flight speed for common tern is 10.9 as per Alerstam et al., 2007 using Arctic tern as a proxy. (This is the same as Caneco, 2022, but is derived from Alerstam et al., 2007.) Other parameters for common tern should be taken from the same sources as presented in our guidance e.g. Snow and Perrins, 1987 for body length and wingspan.

Assessment methodology – distributional responses

The EIA Scoping Report states an intention to assess displacement using SeabORD where possible, and displacement matrices for other species and seasons. We support this proposed approach, which aligns with our guidance note 8. We also support the proposed approach of using the displacement and mortality rates set out in this guidance note.

We do not support the proposed use of Wright et al., 2012 (aka SOSS-MAT) to assess barrier effects to migratory birds, and we advise that this source has been superseded. The recently published *Offshore wind – birds on migration in Scottish waters: strategic review* (2023)[15] should be used for assessment of migratory birds.

Assessment methodology – Population Viability Assessment (PVA)

We support the proposed approach to PVA set out in the EIA Scoping Report, which is to follow our Guidance Note 11 in carrying out the PVA where necessary, using the Natural England PVA tool. The PVA will be run for the project lifespan as well as for 25- and 50-years using parameters from Horswill and Robinson, 2015 and the SMP database.

We note and welcome the applicant's recognition of the impact of HPAI in the 2022/23 breeding seasons and their intention to account for this in PVA. We fully acknowledge the challenge of quantifying the impacts from HPAI and support a qualitative assessment where a quantitative

[15] https://www.gov.scot/publications/strategic-study-collision-risk-birds-migration-further-development-stochastic-collision-risk-modelling-tool-work-package-1-strategic-review-birds-migration-scottish-waters/pages/3/

assessment is not possible. We also recommend that the most up-to-date information and data from colonies should be used where available.

Cumulative impacts

The EIA Scoping Report briefly addresses the proposed approach to Cumulative Effects Assessment in Section 4.4, although does not set out any specific approaches. Therefore, we cannot provide specific advice on their approach to cumulative assessment of impacts on ornithological receptors. However, we advise that if the Cumulative Effects Framework (CEF) is published within project timeframe then it should be used to undertake the cumulative assessment.

In addition, we have advised Marine Directorate that the Berwick Bank application will have adverse effects on site integrity (AeoSI) on multiple seabird species within The UK European Site Network, some of which overlap with the species and sites assessed in other applications. Consequently, as the outcome of the Berwick Bank application is unknown at present, PVA models should be run using two scenarios: Berwick Bank consented and unconsented.

Mitigation and monitoring

The embedded mitigation presented in EIA Scoping Report section 6.7.4 is limited to the development of a CEMP and an INNS management plan. These embedded mitigation measures are appropriate however there is scope for additional embedded mitigation measures to be specified, for example:

- WTG design to target a minimum blade tip height of 30 m above mean sea level (MSL) (30 m Air Gap); and
- development and adherence to a vessel management plan, or equivalent.

Transboundary impacts

We welcome the inclusion of assessments considering inter-related effects and transboundary effects, as briefly described in EIA Scoping Report section 4.5. As per our comments above on cumulative impacts, we note that no specific approaches to these assessments are set out and so we cannot provide advice at this stage.

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NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix F – Annex 1

This is a summary of key information contained in following Guidance Note 3: 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

We advise mean max + 1SD from Woodward *et al*., (2019) should be used to screen in connectivity to colony SPAs with the following exceptions:

Tracking on Fair Isle showed foraging distances are greater than those of all other colonies for both common guillemot and razorbill. This may relate to poor prey availability during the study. However, trends for seabirds in the Northern Isles indicate this may be becoming a more frequent occurrence. We therefore recommend for common guillemot and razorbill:

Use of mean max+1SD, including data from Fair Isle for all Northern Isles designated sites.

For all designated sites south of the Pentland Firth (i.e. excluding the Northern Isles) use of mean max+1SD discounting Fair Isle values.

For gannet we recommend using mean max +1SD for all colonies without site specific maximum values. However the site specific maximum should also be used for SPA colonies where site specific evidence exceeds this value (509.4km), namely:

- Forth Islands (Bass Rock);
- Grassholm; or
- St Kilda.

For species with insufficient data to calculate mean max +1SD then the closest metric is to be used in the following order of preference:

- Mean Max (MM);
- Max;
- Mean.

Specifically, the exceptions for gannet, guillemot and razorbill are:

Species	Exception Applied	Recommended Foraging Range (km)	Metric
Northern gannet	Forth Islands SPA	590	Max
	Grassholm SPA	516.7	Max
	St Kilda SPA	709	Max
Common guillemot	All Northern Isles SPAs	153.7	MM+SD
Razorbill	All Northern Isles SPAs	164.6	MM+SD

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix C – Marine mammals and other megafauna

Marine mammals and other megafauna are considered in Section 6.6 of the EIA Scoping Report. Scoping Questions are set out in Section 6.6.7 and we respond to these first, with further detail provided below.

Scoping questions

1. Do you agree that the data sources identified are sufficient to inform the Marine Mammal and Other Megafauna baseline for the EIA (and therefore that no further baseline data collection is merited)?

No, the list of sources should be updated to include SMASS, BDMLR, ORCA ferry surveys, WDC Shorewatch data and SCANS IV sources of cetacean data. It should also include Paxton et al. 2014[16], Witt et al. 2012[17], and Speedie and Austin et al. 2019[18] sources of basking shark data. We also note Carter et al. 2022[19] is missing from this list, although it is later referred to in seal density figures.

With regard to SCANS data – in some cases, SCANS III and SCANS IV may not have the same coverage in terms of density estimates for every species of cetacean within or between every survey block. We advise the applicant to include species densities for every listed species from SCANS IV wherever possible, and if some are missing that are still found in SCANS III – then use the density estimate through from SCANS III wherever needed (or if SCANS III is significantly higher/more precautionary). However, if a higher still density estimate is calculated from site specific DAS, then this should be used over either SCANS III or IV – as this would be the most precautionary approach.

The Unexploded Ordnance Clearance Joint Interim Position Statement[20] should also be listed as a key guidance document.

2. Have all Marine Mammal and Other Megafauna receptors and potential likely significant effects that could result from the Project been identified?

No, we note that the Regional Baselines report (aka Hague et al. 2020)[21] is listed as a reference, however the EIA Scoping Report omits some of the species included in this reference. We advise the list of species that we expect to see assessed in the EIA Report should include: grey seal, harbour seal, harbour porpoise, white-beaked dolphin, orca, Risso's dolphin, minke whale,

[16] https://www.nature.scot/sites/default/files/2017-11/Publication%202014%20-%20SNH%20Commissioned%20Report%20594%20-%20Statistical%20approaches%20to%20aid%20identification%20of%20Marine%20Protected%20Areas%20for%20Minke%20whale%2C%20Risso%27s%20dolphin%2C%20White-beaked%20dolphin%20and%20Basking%20shark.pdf

[17] https://www.int-res.com/abstracts/meps/v459/p121-134/

[18] https://www.sciencedirect.com/science/article/pii/S1385110118300376

[19] https://www.frontiersin.org/articles/10.3389/fmars.2022.875869/full

[20] https://www.gov.uk/government/publications/marine-environment-unexploded-ordnance-clearance-joint-interim-position-statement

[21] https://data.marine.gov.scot/dataset/regional-baselines-marine-mammal-knowledge-across-north-sea-and-atlantic-areas-scottish

common dolphin, bottlenose dolphin, Atlantic white sided dolphin, long finned pilot whale, humpback whale, fin whale and beaked whale species.

We appreciate that it may not be possible to generate density estimates for every species included in the assessment, and hence carry out a quantitative EIA assessment for each species. If this is the case, then we are content with a qualitative assessment for these species, rather than them being scoped out of the EIA.

In relation to the suite of potential likely significant effects, collision with marine mammals and other megafauna should be scoped into assessment for all stages of the development.

3. Do you agree with the proposed approach to assessment and modelling (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Marine Mammals and Other Megafauna?

For the EIA assessment, NatureScot advise the applicant to use the UK portion of the Inter Agency Marine Mammal Working Group (IAMMWG) Management Unit (MU). This is the appropriate spatial scale to enable the most realistic assessment of animal numbers affected by development in Scottish waters. The MUs for most species are very large areas, and in most cases are too big for a meaningful understanding of impacts to affected populations.

Our position is that the UK portion of the MU better reflects the likely size of populations affected by the potential impact pathways.

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on Marine Mammals and Other Megafauna receptors?

No, again the list of embedded mitigation measures is minimal at this point. We advise the applicant to specify the use of MMOs and PAM, the Scottish Marine Wildlife Watching Code (SMWWC), and inclusion of consent plans including a Vessel Management Plan (VMP) and a Marine Mammal Management Plan (MMMP) which should include the circumstances of when and how Acoustic Deterrent Devices (ADDs) will be deployed.

We also advise that, due to recent success of low order deflagration techniques for UXO clearance in the Moray Firth, this is likely to be the preferred method in Scottish waters and we would expect to see this technique as the option for UXO clearance.

Study area

The study area for marine mammals and other megafauna is defined in EIA Scoping Report section 6.6.2 as the Array Area plus a 100km buffer. Reference is also made to marine mammal Management Units, which will be considered for species likely to be present in the wider area beyond the 100km buffer.

Baseline characterisation

Site specific surveys

The applicant has commissioned a DAS programme of 24 months (beginning in March 2022) for the array area and a 10km buffer. No additional details of the DAS methodology are provided so we cannot provide advice on the suitability of the surveys for the assessment. Data from the first

year of DAS results has been incorporated into the EIA Scoping Report. We advise that no potential receptor species should be scoped out based on a single year of data.

Data sources

Table 6.6-1 lists the proposed data sources to inform the EIA Report. Please refer to our response to Scoping Question 1, above, for additional sources that must be incorporated into the EIA Report.

Potential impacts

EIA Scoping Report Table 6.6-4 summarises potential impacts on marine mammal and other megafauna receptors, and whether they are scoped in/ out. Please refer to our response to Scoping Question 2, above.

Approach to assessment

EIA Scoping Report Section 6.6.6 describes the proposed approach to assessment and we confirm this is as expected. This section includes reference to the proposed approach to noise modelling which will be based on the INSPIRE/ SPEAR models.

Cumulative impacts

The EIA Scoping Report briefly addresses the proposed approach to Cumulative Effects Assessment in Section 4.4, although does not set out any specific approaches. Therefore, we cannot provide specific advice on their approach to cumulative assessment of impacts on marine mammal and other megafauna receptors. However, we advise that if the Cumulative Effects Framework (CEF) is published within project timeframe then it should be used to undertake the cumulative assessment. If it is not published we still recommend the use of the iPCoD model.

Mitigation and monitoring

Mitigation

As noted elsewhere in this advice, the list of embedded mitigation measures in this EIA Scoping Report is minimal.

Monitoring

No specific monitoring for marine mammals and other megafauna is specified in the EIA Scoping Report. Further information on proposed monitoring should be discussed in the EIA Report.

Spiorad na Mara is the first of the ScotWind sites off the west coast of Scotland to reach EIA Scoping stage. Additionally, there are no operational or consented offshore wind projects on the west and north-west coasts of Scotland and this presents an opportunity for developers to consider strategic work, particularly between the cluster of: Spiorad na Mara, Talisk and Havbredey).

NatureScot encourage strategic work between developers in the region, as this kind of approach has been very successful in the Moray Firth and Forth & Tay regions, especially in terms of monitoring cetaceans. Much of our advice on OWF developments off the east coast of Scotland has its origin in monitoring work through collaborations between developers, academic establishments and government agencies.

Drawing from the success of implementing monitoring on the east coast of Scotland, developers on the west have the opportunity to support the monitoring of Risso's dolphin, through photo ID work and understanding connectivity to the North East Lewis MPA. It will become increasingly important to understand the interactions and behaviour of Risso's dolphin, as so little is known about this species. There could also be opportunities to collaborate with the Marine Directorate SPAN network, supporting the monitoring of harbour porpoise in the Inner Hebrides and the Minches SAC. We would welcome discussion and regular communication between the developer, nature conservation NGOs (such as HWDT and WDC), academics, Marine Directorate and NatureScot to consider a plan for monitoring cetaceans off the west coast as soon as feasible.

Transboundary impacts

We welcome the inclusion of assessments considering inter-related effects and transboundary effects, as briefly described in EIA Scoping Report section 4.5. We advise that transboundary effects on marine mammals and other megafauna can be scoped out of further assessment.

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix D – Fish and shellfish ecology

Fish and shellfish ecology is considered in Section 6.5 of the EIA Scoping Report. Scoping Questions are set out in Section 6.5.7 and we respond to these first, with further detail provided below. Our advice focuses on:

- fish and shellfish species, and their associated habitats; and
- species of conservation interest, including Priority Marine Features (PMFs) and key prey species, including migratory fish species.

We advise that in relation to PMFs the assessment should quantify, where possible, the likely impacts to key fish and shellfish PMF species. It should assess whether these could lead to a significant impact on the national status of the PMF being considered[22]. In respect of migratory species, due to the proximity to the coast and to rivers designated as Special Areas of Conservation (SACs), we provide advice in respect of what we wish to see included as part of the assessment.

Scoping questions

1. Do you agree that the data sources identified are sufficient to inform the Fish and Shellfish Ecology baseline for the EIA (including potential observations from other relevant surveys)?

For marine fish and shellfish groups – no, the list of sources should be updated to include:

- Updating Fisheries Sensitivity Maps in British Waters (Gonzalez-Irusta, 2014) - available on NMPi[23]
- Sandeel models by Langton et al. 2021 - available on NMPi
- ScotMER: Developing essential fish habitat maps: report[24]

For migratory fish – no, there are omissions in relation to the spatial and temporal movement of migratory fish within the development area. These fish may be local i.e. from rivers draining west from the Outer Hebrides, (including SACs), or from further afield as demonstrated by Lilly et al. 2023[25].

- Atlantic salmon – should be scoped in, noting the EIA Scoping Report correctly identifies that Atlantic salmon is included in Annex II of the EC Habitats Directive but does not mention that it is also included in Annex V and Appendix III of the Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats). Additionally, a recently published Red List Assessment for this species (Nunn et al. 2023) has identified Atlantic salmon as being 'Endangered' in GB as well as at a country level in Scotland, England and Wales.

  In addition - there are data available for juvenile populations, which could contribute to describing the status of Atlantic salmon populations. These are data which have been

[22] https://www.gov.scot/policies/marine-environment/priority-marine-features/
[23] https://marinescotland.atkinsgeospatial.com/nmpi/
[24] https://www.gov.scot/publications/developing-essential-fish-habitat-maps-fish-shellfish-species-scotland-report/
[25] https://doi.org/10.1111/jfb.15591

collected by Marine Directorate since 2018 via the National Electrofishing Programme for Scotland (NEPS), and are available online.

- European eel – should be scoped in, noting the EIA Scoping Report incorrectly states that European eel is included in Annex II of the Habitats Directive, and fails to mention the EU Regulation (2007 (EC 1100/2007)) and the existence of national Eel Management Plans. These measures are in place largely to manage fisheries, but they have a wider role in the terms of the protection and management of European eels more widely. This species is also listed in Appendix II of the Bonn Convention (The Convention on Migratory Species) and Appendix II of CITES (Convention on International Trade in Endangered Species). It has been assessed as 'Critically Endangered' within the GB Red List Assessment and also globally by the IUCN.

  In addition – further sources of information on European eel should be included. Relevant information from Adams et al. (2012) should be included, as well as trends data from ICES and OSPAR.

- Sea trout should be scoped in, as a potential host for freshwater pearl mussel – North Harris Special Area of Conservation (SAC) includes Freshwater Pearl Mussel as a qualifying feature, and so the potential impact of this development on sea trout should also be considered. Neither species is adequately addressed within the scoping document, with only a brief comment that sea trout can be discounted, which omits the fact that sea trout is itself a PMF, as well as a potential host for freshwater pearl mussel.

- River lamprey and sea lamprey –we are content for these species to be scoped out of any further consideration as neither are routinely observed in rivers within the Western Isles.

2. Have all Fish and Shellfish Ecology receptors and potential likely significant effects that could result from the Project been identified?

For marine fish and shellfish groups – yes.

We know for most migratory fish species there are concerns about long term declining trends, particularly for Atlantic salmon and European eels. We identify that sea trout should be included as a potential host for freshwater pearl mussel an SAC qualifying interest - see comments above.

In terms of potential impact pathways from offshore wind, we advise this is considered both in terms of the phase of the development e.g. construction, operation and maintenance as well as decommissioning, but also the export cable is considered alongside the windfarm array area itself.

We recommend that the list of potential likely significant effects is cross referenced against the ScotMER Evidence Map[26]. In addition we suggest the following impacts are considered further and scoped into assessment:

- EMF impacts on the migratory patterns of all marine life stages of European eel, Atlantic salmon, and sea trout as a potential host for freshwater peal mussel;
- construction impacts, particularly underwater noise and displacement effects to migration from both the export cable and the offshore wind array;

[26] https://www.gov.scot/publications/diadromous-fish-specialist-receptor-group/

- operational impacts from underwater noise;
- potential disruption to migratory movements from lighting / shadow flicker; and
- increased risk of predation arising from increased time taken to pass through the development due to displacement effects arising from lighting / flicker effects.

3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Fish and Shellfish Ecology?

For marine fish and shellfish groups – yes, all assessment methods are based on desktop studies that use modelling data for underwater noise or sediment transportation from other chapters where relevant.

For migratory fish – the generic approach to assessment set out in section 6.5.6 is as expected, however we highlight the absence of any attempt to address key evidence gaps regarding potential impact pathways – in particular the overlap between the development area and migratory fish at a local, and regional scale and any consideration given to mitigation.

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Fish and Shellfish Ecology receptors?

For marine fish and shellfish groups – yes, the embedded mitigation measures listed in this chapter are indirectly related to this topic but will reduce risks to fish and shellfish. Ongoing consideration of mitigation as the proposal is developed should be considered.

For migratory fish – we advise the need for ongoing consideration of mitigation as the proposal develops. This should include but not be limited to:

- Timing of construction periods in respect of migratory periods
- Consideration of underwater noise effects during both construction and operation
- Consideration of lighting and barrier effects / attraction of predators and any potential mitigation

Study area

The study area for marine fish and shellfish is defined in EIA Scoping Report section 6.5.2 as 3 ICES Rectangles, one of which encompass the Array Area, and two which are outwith but in closest proximity to the Array Area.

At this stage we are uncertain whether this study area is adequate, as it is not clear if it encompasses the modelled distances for suspended sediment concentration change and underwater noise/ vibration.

Underwater noise modelling outputs presented in recent offshore wind assessments extended to c. 30km. Due to the layout of the Array and the ICES Rectangles, at the nearest point, the study area only extends 10km from the Array Area boundary. Therefore, the study area presented within this chapter is unlikely to cover the area impacted by the underwater noise, and we advise that the boundaries should be extended to take this into account.

For migratory fish – we advise that an additional migratory fish study area is defined, based on the most up-to-date evidence. Please refer to our comments on migratory routes below.

Baseline characterisation

We note a desk-based review of existing fish and shellfish ecology data will be conducted. This will be supplemented by site-specific survey data obtained from geophysical and geotechnical surveys, and baited remote underwater video (BRUV) sampling.

Elasmobranchs

We note that basking shark have been considered in the marine mammals and other megafauna chapter.

Demersal and pelagic fish

We have no comments on this receptor group.

Sandeel

The potential for sandeel presence and usage at this development site has been described using both Latto et al., 2013 and Langton et al., 2021 models. We would expect to see the Langton et al. 2021 model being used as this was developed within Scotland and is most relevant to Scottish waters. Sandeel growth rate in Scottish waters is low relative to that of most North Sea Grounds and areas of habitat are also small relative to those in the central and eastern North Sea, therefore any models developed outside of Scotland may underestimate the importance of the smaller patches of sandeel and should be used with caution.

Atlantic herring

We have no comments on this receptor group.

Migratory fish – Atlantic salmon migratory routes and connectivity to designated sites

The EIA Scoping Report (page 186) includes narrative on Atlantic salmon migratory routes. We have identified important gaps which must be addressed:

- Mark-recapture studies – the EIA Scoping Report refers to Malcolm et al. (2010) as a primary source of information on the migratory pathways of these species. This is out-of-date and should no longer be used for characterisation of migratory routes. Particularly so when fine-scale information on the migratory pathways of Atlantic salmon post-smolts is required. The data provided in Malcolm et al. (2010), and particularly Figure 6.5-9, comes from a review of historical mark-recapture studies, updated with what information was available up until the time of publication. Whilst this review is valuable, it provides only a broad spatial coverage and little useful information on migration pathways or migration speed (to allow an estimate of the time taken to move through a development area).
- Acoustic telemetry/ animal tagging studies – more recent studies have used acoustic telemetry to successfully determine migratory pathways or migration speed (e.g. Lothian et al., 2018; Barry et al., 2020; Newton et al., 2021; Green et al., 2022; Lilly et al., 2022;2023), whilst others, have used tagging methods to provide information on the swimming behaviours of Atlantic salmon in relation to environmental factors (e.g. Davidsen et al., 2008; 2009; Godfrey et al., 2015). MD-LOT should seek advice from MD-SEDD for the most up-to-date studies of relevance.
- Hydrodynamic modelling – insight into Atlantic salmon post-smolt migration pathways is provided by the work of Ounsley et al. (2020) which combined a high-resolution

hydrodynamic model of the Scottish continental shelf with a Lagrangian particle tracking model to simulate post-smolt migration from Scottish rivers, but direction was largely predicated on a knowledge of the bearing taken by fish as they exited rivers in to the coastal environment. Whilst this work suggested that fish from individual rivers may adopt different locally adapted migratory strategies, it may be useful as contextual information for this assessment.

- Genetics studies – e.g. Gilbey et al 2021 can also provide some useful insights into migration pathways and feeding areas, but again useful only as contextual data.

This section of the EIA Scoping Report also briefly mentions Atlantic salmon SACs in Scotland, we offer the following comments on European sites:

- North Harris/ Langavat SACs – the report states "*The North Harris SAC partially overlaps with the Langavat SAC, which drains into the North Atlantic through Loch Roag approximately 19.5 km southwest of the Offshore Development Area of Search*." This is incorrect, the SAC boundaries do not overlap, they are contiguous, and rivers within the North Harris SAC drain principally to the south. The Langavat and Roag systems are separate, and the Langavat SAC enters the sea at Loch Griomarstadh.
- We also advise when considering the grade status of rivers – as it is written, the EIA Scoping Report provides an overly optimistic view of the status of Atlantic salmon based on river grade status. We highlight that the grading system does not recognise, whilst total salmon numbers may be enough to meet the Grade 1 spawning deposition target, the conservation objectives of Atlantic salmon features in SACs requires the maintenance of all genetic types. So, the grade status may not reflect the status of the SAC.

Potential impacts

EIA Scoping Report Table 6.5-3 summarises potential impacts on fish and shellfish receptors, and whether they are scoped in/ out, this includes linkages with EIA Scoping Report chapter 6.2 – Underwater Noise. As noted in our response to Scoping Question 2, above, we are content with this approach.

EMF effects from cables

We welcome the scoping in of EMF effects for inter-array cables during the operation and maintenance phase. We recognise that this impact pathway is not well understood at present.

Approach to assessment

Marine fish have been considered from a fish ecology point of view and their relationship to wider ecosystem and availability as prey species (rather than purely a commercial fisheries point of view). This approach is welcomed.

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 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[27] may be helpful in the understanding of predator-prey relationships in and around offshore wind farms.

For migratory fish – we highlight that the approach to assessment is desk-based. There appears to be no commitment to identify any of the data gaps that exist with relation to migratory fish distribution. Knowledge of spatial and temporal overlap between these species and the development site is essential baseline data if impacts are to be properly assessed.

Cumulative impacts

The EIA Scoping Report briefly addresses the proposed approach to Cumulative Effects Assessment in Section 4.4, although does not set out any specific approaches. Therefore, we cannot provide specific advice on their approach to cumulative assessment of impacts on fish and shellfish receptors.

Mitigation and monitoring

In relation to embedded mitigation measures, please refer to our response to Scoping Question 4, above.

No specific monitoring for fish and shellfish is specified in the EIA Scoping Report. Further information on proposed monitoring should be discussed in the EIA Report.

Transboundary impacts

Transboundary impacts are not discussed in this chapter but are briefly mentioned in Chapter 4. We advise that transboundary impacts on most fish and shellfish receptor groups can be scoped out of further assessment.

The exception to this is migratory fish, acoustic tracking studies, using static arrays and a Slocum glider (see Lilly, 2022) have demonstrated that Atlantic salmon post-smolts from Scotland (River Gryffe, River Orchy), England (River Derwent), Northern Ireland (River Bann, River Glendun) and the Republic of Ireland (Burrishoole River) migrate to the west of the Outer Hebrides, indicating that any assessment of the potential impact of the development on Atlantic salmon post-smolts should consider fish not only from Scotland, but further afield. It should be borne in mind that at least one of these rivers (the River Derwent) is also an Atlantic salmon SAC, and that these data are derived only from those rivers which were subject to Atlantic salmon post-smolt tracking studies. Further, there is no data available for post-smolts originating from the Langavat SAC or North Harris SAC, both of which include Atlantic salmon as qualifying interests.

Migratory fish references

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NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix E – Underwater noise

Underwater noise is considered in Section 6.2 of the EIA Scoping Report. Scoping Questions are set out in Section 6.2.7 and we respond to these first, with further detail provided below.

Scoping questions

1. Do you agree that the assessment methodologies identified are sufficient to inform the Underwater Noise assessment for the EIA and are there any further effect thresholds that are critical to include?

We confirm that we are content with the proposed assessment methodology for underwater noise. This includes the use of the INSPIRE model for higher level noise sources such as piling, and the SPEAR model for lower level noise sources such as dredging.

We support the use of Southall et al 2019 for PTS/ TTS thresholds as well as the application of dose response curves (Graham et al. 2017, 2019 for cetaceans and Whyte et al 2020 for seals) for disturbance to all species of marine mammal. In terms of noise/ propagation modelling, we highlight the recommendations from the recent ScotMER report on marine piling[28].

The applicant should also consider the recently published work from ORJIP/ The Carbon Trust on Reducing Conservatism in Underwater Noise in assessment for Offshore Wind (ReCON)[29].

In addition, NatureScot encourage the use of soft start, ramp up and acoustic deterrent devices (ADDs) for piling and advise the applicant to consider and implement the most up-to-date guidelines on minimising the risk of injury to marine mammals.

2. Do you agree with the assessment methodology for fish, to focus on sound pressure criteria as presented in Popper et al. (2014), on the basis that there are no functional assessment criteria based on particle motion or seabed vibration?

Yes, we confirm we support the use of Popper et al. 2014 in assessing the effects of underwater noise on fish.

Study area

We support the proposed approach of not defining a specific underwater noise study area, and instead considering underwater noise as a factor in determining the relevant receptor study areas (for marine mammals, fish and shellfish).

Baseline characterisation

We support the proposed approach to assessment based on absolute noise criteria, rather than attempting to use the difference between highly variable background noise levels and activity-related noise.

[28] https://www.gov.scot/publications/energy-conversion-factors-underwater-radiated-sound-marine-piling-review-method-recommendations-2/documents/

[29] https://www.carbontrust.com/our-work-and-impact/guides-reports-and-tools/reducing-conservatism-in-underwater-noise-assessments-for-offshore-wind-recon

Potential impacts

Table 6.2-1 summarises the impacts to be scoped into the underwater noise assessment. We support the proposed approach and impacts that have been scoped in/ out, and note that assessments will be presented in the relevant receptor chapters of the EIA Report. We note that "effect of seabed vibration on benthic and demersal species" is the only impact that has been scoped out, and this applies to all stages of the development. Noting that we advise it should remain scoped in for consideration of migratory fish.

Approach to assessment

Please refer to our response to Scoping Question 1, above.

The proposed assessment approach is set out in EIA Scoping Report section 6.2.6. We confirm that this is broadly as expected, and note that the INSPIRE and SPEAR models will be used.

Cumulative impacts

The EIA Scoping Report briefly addresses the proposed approach to Cumulative Effects Assessment in Section 4.4, although does not set out any specific approaches. Therefore, we cannot provide specific advice on their approach to cumulative assessment of impacts on underwater noise receptors. However, we advise that if the Cumulative Effects Framework (CEF) is published within project timeframe then it should be used to undertake the cumulative assessment. If the CEF is not published then the use of iPCoD is still advised.

Mitigation and monitoring

We support the approach of defining mitigation measures in relation to the relevant receptor groups (i.e. marine mammals, fish and shellfish) and setting out those measures in the relevant receptor chapters.

No specific monitoring for underwater noise is specified in the EIA Scoping Report. Further information on proposed monitoring should be discussed in the EIA Report.

Transboundary impacts

Transboundary impacts are not discussed in this chapter but are briefly mentioned in Chapter 4. We advise that transboundary impacts on underwater noise can be scoped out of further assessment.

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix F – Benthic and intertidal ecology

Benthic and intertidal ecology is considered in Section 6.4 of the EIA Scoping Report. Scoping Questions are set out in Section 6.4.7 and we respond to these first, with further detail provided below.

Scoping questions

1. Do you agree that the data sources identified along with the proposed baseline survey are sufficient to inform the Benthic and Intertidal Ecology baseline for the EIA (and therefore that no further baseline data collection is merited)?

At this stage and in principle, yes, however this advice may change depending on the results of the site-specific surveys. For example, if sensitive species and/ or PMFs are found, there may need to be follow up surveys to investigate their extent and distribution, and/ or consideration of micro-siting requirements.

2. Have all Benthic and Intertidal Ecology receptors and potential likely significant effects that could result from the Project been identified?

We confirm that we are content with the receptors and likely significant effects identified in EIA Scoping Report sections 6.4.3.3 and 6.4.5.

3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Benthic and Intertidal Ecology?

Table 6.4-5 describes the impacts to be scoped in or out. We broadly support the proposed approach with the following exceptions:

- Colonisation of hard structures – should be scoped into the Operation and Maintenance phase. This could arise through a change in substrate type, leading to changes in ecological communities which should be assessed.
- Removal of hard structures – should be scoped into Decommissioning phase. Related to the previous point – changes in substrate type, and their subsequent removal, should be assessed.
- Introduction and colonisation by INNS – should be scoped into the Operation and Maintenance phase. There is the potential for INNS to be transported by vessels, and the added infrastructure (WTGs, OSPs, cable protection) can act as settling points and ‘stepping stones’ for INNS

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on Benthic and Intertidal Ecology receptors?

The proposed embedded mitigation measures in Table 6.4-4 are as expected. We advise that the target burial depth of electrical cables should be at least 1.0m to mitigate the effects of EMF on benthic ecology receptors.

Study area

The benthic and intertidal ecology study area is defined in EIA Scoping Report section 6.4.2 and comprises the Array Area and Offshore Cable Area of Search.

We would expect to see an additional wider study area to cover the estimated extent of impacts, which is usually based on a tidal cycle zone of influence. The report briefly mentions a wider zone of influence based on the Physical and Coastal Processes study, but this is undefined at this stage.

Baseline characterisation

We support the proposed approach of characterising the baseline environment through a combination of a desk-based review of existing datasets, and analysis of site-specific survey results. We support the list of existing datasets provided in Table 6.4-1 that will be used to inform the desk-based review.

At the time of writing we have not had sight of any outputs from these surveys. As such we cannot give definitive advice on whether the planned surveys are sufficient to characterise the baseline environment, or if follow-up surveys may be required.

We note that some of the narrative in this chapter seems to pre-empt the results of the site-specific surveys, for example page 159 states that "no benthic PMFs overlap the Array Area. A single PMF ('kelp beds'), overlaps the OCC Area of Search". We assume this means that none have been found to date, and we expect this narrative to be updated in the EIA Report, following analysis of survey results.

We have held discussions with the applicant on the use and value of eDNA survey as a method of complementing site-specific data obtained by traditional survey methods (e.g. DDV, grab sampling). Our most recent advice is that:

- NatureScot and MD-SEDD are in the process of actively developing joint guidance on the use of eDNA sampling for fish & shellfish receptors;
- it is likely that we will require eDNA sampling for fish & shellfish receptors, and subsequent analysis, if a project gains the relevant consents;
- and so eDNA sampling is likely to be best carried out in the post-consent and pre-construction period.

We therefore advise that eDNA sampling and analysis is not required to inform the EIA Report, but we highlight that it can add significant value to other survey methods.

Potential impacts

Please refer to our response to Scoping Question 3, above.

Approach to assessment

The proposed assessment approach is set out in EIA Scoping Report section 6.4.6. We confirm that this is broadly as expected, however we recommend that the applicant considers the Feature Activity Sensitivity Tool[30] ('FeAST') to inform the sensitivity of benthic and intertidal ecology receptors.

Cumulative impacts

[30] https://feature-activity-sensitivity-tool.scot/

The EIA Scoping Report briefly addresses the proposed approach to Cumulative Effects Assessment in Section 4.4, although does not set out any specific approaches. Therefore, we cannot provide specific advice on their approach to cumulative assessment of impacts on benthic and intertidal receptors, including other projects which may need to be taken into account.

Mitigation and monitoring

In relation to embedded mitigation measures, please refer to our response to Scoping Question 4, above.

No specific monitoring for benthic and intertidal ecology is specified in the EIA Scoping Report. Further information on proposed monitoring should be discussed in the EIA Report.

Transboundary impacts

Transboundary impacts are not discussed in this chapter but are briefly mentioned in Chapter 4. We advise that transboundary impacts on benthic and intertidal ecology can be scoped out of further assessment.

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix G – Onshore and intertidal ornithology

Onshore and intertidal ornithology are considered in Section 7.3 of the EIA Scoping Report. Scoping Questions are set out in Section 7.3.7 and we respond to these first, with further detail provided below.

Scoping questions

1. Do you agree that the proposed survey scope and methods (including survey areas) are sufficient to inform a robust ornithological impact assessment (and therefore no further surveys are required)?

EIA Scoping Report section 7.3.3.1 confirms that 1 year of breeding bird surveys have been undertaken, during 2023 and comprising:

- breeding corncrake surveys;
- breeding raptor surveys;
- breeding diver surveys; and
- moorland breeding bird surveys.

Our standard guidance for onshore wind farms requires 2 years of breeding bird surveys, however as the onshore export cables for this proposal are proposed to be undergrounded and as such any collision risks will be avoided, we advise that a single year of survey is sufficient to inform the baseline.

However, locations of key breeding birds including red-throated diver and some raptors and waders can change between years. Therefore pre-construction breeding bird surveys will be required to update the baseline and avoid impacts on protected species.

The project envelope has not ruled out the use of overhead lines (OHL) for the export cable if required. If construction methods are changed to use OHL then further breeding bird surveys will be required to assess collision risk, particularly with regard to the qualifying species of the Lewis Peatlands and Ness & Barvas SPA. We refer Marine Directorate to our guidance on this topic[31].

With regard to wintering surveys which comprise:

- foraging goose surveys; and
- winter roosting raptor surveys.

We highlight that these are listed under “Scoped out surveys”, but the text clearly states these will be carried out as per the advice we provided at the Scoping Workshop stage.

2. Do you agree that intertidal bird surveys can be scoped out and are not required to inform the assessment?

[31] https://www.nature.scot/doc/guidance-assessment-and-mitigation-impacts-power-lines-and-guyed-meteorological-masts-birds

As per our advice at the Scoping Workshop stage, we confirm that there is limited bird interest on the intertidal area adjacent to the potential shore connection options 1, 2 & 3 and these surveys can be scoped out.

3. Are there any other key data sources (in addition to those identified in section 7.3.3.2) that should be consulted to inform the Onshore and Intertidal Ornithology baseline for the EIA?

We confirm that the additional sources we provided at the Scoping Workshop stage have been included in the EIA Scoping Report, Table 7.3-1. We have no additional data sources

4. Have all Onshore and Intertidal Ornithology receptors and likely significant effects that could result from the Project been identified?

Yes, in terms of onshore receptors, but see our comments in Appendix B in relation to migratory birds.

5. Do you agree with the proposed approach to assessment (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Onshore and Intertidal Ornithology?

EIA Scoping Report Table 7.3-3 scopes in the impact pathways of habitat loss, displacement and disturbance, which we agree with. The impact pathway scoped out (killing or injuring etc) can be sufficiently managed with embedded mitigation and legal compliance. We note that collision risk with overhead lines (OHL) has been scoped out, but the project envelope has not eliminated this option for the onshore export cables. If OHL become necessary then this impact pathway should be assessed.

We provide advice in Appendix B on the consideration required for migratory bird species.

6. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on Onshore and Intertidal Ornithology receptors?

The list of embedded mitigation measures is minimal currently, and as worded it seems to only apply to the breeding season. Consideration also needs to be given to potential disturbance risk to non-breeding season raptor roosts. Both eagles and hen harrier are specially protected via Schedule 1A of the Wildlife and Countryside Act 1981 (as amended) and require to be protected from harassment (repeated disturbance) year-round. In addition, hen harriers are very likely to be present in the substation search areas near Arnish.

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix H – Onshore ecology

Onshore ecology is considered in Section 7.2 of the EIA Scoping Report. Scoping Questions are set out in Section 7.2.7 and we respond to these first, with further detail provided below.

Scoping questions

1. Do you agree that the data sources identified are sufficient to inform the ecological baseline for the EIA (and therefore that no further baseline data collection is merited)?

The full extent of aquatic surveys cannot be determined at this stage. We have proposed a fish habitat survey as an optional item, which assumes some further surveys for a proportion of watercourses within or hydrologically connected to the Onshore Development Area of Search could contain suitable in-stream habitat that could support IEFs (e.g. migratory salmonids, lamprey, eels, etc.). Requirements for aquatic surveys would be agreed with NS.

For peat – the majority of relevant data sources have been identified, however we advise that the Carbon and Peatland 2016 map[32] should also be included. This can be used to help indicate where the peat resource is likely to be located, and so where peatland habitat might be found.

EIA Scoping Report section 7.2.6.3 sets out relevant Policy, Legislation and Guidance, we advise that this should include our guidance on:

- Advising on peatland, carbon-rich soils and priority peatland habitats in development management[33]. As with other renewables development and associated infrastructure on land this guidance should be followed, including completion of its Annex 1 templates for sections of cable trenching, the substations and any other infrastructure.
- Peatland ACTIONs Technical Compendium[34] – for identifying when, where and how peatland restoration should be carried out.

For other onshore ecology receptors - the list of data sources is mostly as expected. However we advise that you contact Outer Hebrides Biological Recording[35]. We are aware that their data is hosted on the NBN Gateway, which is one of the listed data sources, but there may be further advice or specific datasets that you can obtain from them that may need to be incorporated into this list. We note that they are referred to later in this chapter in section 7.2.6.1.

2. Have all ecological receptors and potential likely significant effects that could result from the Project been identified?

This Scoping Chapter has identified potential constraints in connection with Onshore Ecology based on a high-level review of freely available information. Potential likely significant effects on IEFs would be determined upon completion of ecological surveys, design development and EIA (including HRA).

[32] https://soils.environment.gov.scot/maps/thematic-maps/carbon-and-peatland-2016-map/
[33] https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management
[34] https://www.nature.scot/doc/peatland-action-technical-compendium
[35] https://www.ohbr.org.uk/about-us

For peat – section 7.2.3.2 of the EIA Scoping Report discusses Protected and Priority Habitats. In this section peatland habitats are only discussed in the context of Protected Areas, however peatland located outside of Protected Areas is also a priority habitat, for example blanket bog is an Annex 1 habitat. Therefore consideration of peatland outside of protected areas should also be included in the EIA assessment.

For other onshore ecology receptors - yes, whilst the list of receptors is high level (e.g. "protected and priority species" in lieu of any named species), the potential likely significant effects are as expected.

3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Onshore Ecology?

Potential likely significant effects on IEFs would be determined upon completion of ecological surveys, design development and EIA (including HRA).

For peat – we support the scoping in of peatland habitat, irrespective of whether it is found in a Protected Area or not. However peatland habitats have only been included in the context of the onshore cable corridor area of search and not the grid substation area of search (see Table 7.2-3, page 442. As these areas of search have not yet been defined it is possible that peatland habitat may be found in the grid substation area of search.

It should be noted that peatland is intrinsically linked to its hydrology therefore any forthcoming EIA/ HRA assessment should be based on the hydrological unit of the affected peatland, not just the presence of peatland within a boundary.

For other onshore ecology receptors - yes, we support the scoping in of all identified impacts, although we note they would benefit from being more targeted towards specific receptors, following the completion of surveys etc.

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on onshore ecological receptors?

Embedded mitigation currently identifies the application of good practice. Further measures that can be embedded into the Project may be identified through design development; as well as consultation with relevant consultees/stakeholders.

For peat – the mitigation measures listed align with requirements for NPF4.

For other onshore ecology receptors - the list of embedded mitigation is as expected. We specifically highlight the need for a species protection plan for otter - which is a European protected species (EPS) as well as being a qualifying interest of the Lewis Peatlands SAC. Similarly a species protection plan for bats (which are all European protected species) may be required, depending on the results of the planned Preliminary Bat Roost Assessment.

NatureScot advice on the EIA Scoping Report for the Spiorad na Mara Offshore Wind Farm

Appendix I – Peat, geology, soils and contaminated land

Peat, soils, geology and contaminated land is considered in Section 7.6 of the EIA Scoping Report. Scoping Questions are set out in Section 7.6.7 and we respond to these in our advice. Note that our advice here is limited to peat, and does not address other topics within this topic group.

Scoping questions

1. Do you agree that the data sources identified are sufficient to inform the Peat, Geology, Soils and Contaminated Land baseline for the EIA (and therefore that no further baseline data collection is merited)?

Yes we are content that the correct peat data sources have been identified.

2. Have all Peat, Geology and Soils receptors and potential likely significant effects that could result from the Project been identified?

Yes we are content that the correct peat receptors and likely significant effects have been identified.

3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Peat, Geology, Soils and Contaminated Land?

We broadly support the proposed approach to assessment, however we advise that 'disturbance of deep peat' and the 'loss and compaction of peat and soils' should be assessed for the operation and maintenance phase as well as construction and decommissioning (Table 7.6-3). Disturbance to peat and soils can arise if trenches are exposed during operation and maintenance processes so there should be consideration of this at this stage.

4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Peat, Geology, Soils and Contaminated Land receptors?

We broadly support the suite of embedded mitigation set out in Section 7.6.4. However we note that this does not specifically include the avoidance of areas of peat. Avoidance is an important stage that precedes the use of a Peat Management Plan - first avoid, then minimise, restore and offset – the latter three can be covered by the PMP.

5. Do you agree with the proposed methodology and scope of the Peat, Geology, Soils and Contaminated Land assessment?

Yes, but see our response to Scoping Question 3 above.

6. Do you have any information that would be useful in the preparation of the Peat, Geology, Soils and Contaminated Land assessment, such as information on local quarrying, or infilled land?

No, we have no additional information on these questions.

NATS

From:	NATS Safeguarding
To:	MD Marine Renewables
Cc:	NATS Safeguarding
Subject:	RE: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - [SG36340]
Date:	15 December 2023 14:42:54
Attachments:	image002.png image004.png image006.png image007.png image008.png image009.png image010.png image001.png

Dear Sirs,

We refer to Application SCOP-0032 for Spiorad na Mara, an Offshore Windfarm located off the Isle of Lewis. We note that currently only high level details are available, however NATS has used this information to undertake a preliminary assessment.

Using the boundary points and a reduced number of sample turbine locations, NATS has undertaken some modelling which highlights the potential for some degradation to the radio communication signals serving part of the airspace North and West of the wind farm. This airspace, is served by the NATS air-ground-air radio station located on the North-Western side of the Isle of Lewis. While the modelling has shown the volume of impact to be quite limited, and prevalent at lower altitudes, engagement with our Air Traffic Control customers indicates that the airspace in question is of significance to low level air traffic operations. Accordingly there is the possibility of an unacceptable impact on Aviation. As the area of impact has only been theoretically modelled, and its extent will be affected by the wind farm design, our request is that Aviation is scoped in and that the Applicant engages with NATS in order to identify an acceptable design for the project. It is hoped that through careful design and location of the turbine field, the impact to aviation radio communications can be reduced to an acceptable level or be completely eliminated.

Regards

S. Rossi
NATS Safeguarding Office

NATS

Sacha Rossi
ATC Systems Safeguarding Engineer

D: 01489 444205

E: sacha.rossi@nats.co.uk

4000 Parkway, Whiteley,
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www.nats.co.uk

North and East Coast Regional Inshore Fishery Group

From:	Jennifer Mouat
To:	MD Marine Renewables
Subject:	Re: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 December 2023
Date:	16 November 2023 09:37:29

Good morning

The North & East Coast Regional Inshore Fishery Group have no comment to make on this application.

Kindest

Jennifer

Sent from my iPhone

Northern Lighthouse Board

Northern Lighthouse Board

84 George Street
Edinburgh EH2 3DA

Tel: 0131 473 3100
Fax: 0131 220 2093

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

Your Ref: SCOP-0032
Our Ref: AL/OPS/ML/O6_31_849

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

30 October 2023

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 13 AND SCHEDULE 4 OF THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007

Request for Scoping Opinion for Proposed Section 36 Application and Marine Licences for the Spiorad na Mara Offshore Wind Farm Located Approximately 5km West of the Isle of Lewis

Thank you for your e-mail correspondence dated 19th October 2023 relating to the Scoping report submitted by **Spiorad na Mara Ltd** in relation to the proposed Spiorad na Mara Offshore Wind Farm development located approximately 5 kilometres off the west coast of the Isle of Lewis.

Northern Lighthouse Board note the inclusion of Chapter 6.10 – Shipping and Navigation within the report, with particular reference to Section 6.10.4, detailing the Embedded Mitigations to be considered within the EIA, which include commitments to develop a Lighting and Marking Plan covering both the Construction and Operational & Maintenance phases of the project.

NLB have no objection to the content of the Scoping Report, and no suggestions for additional content.

Yours sincerely

[redacted]

Peter Douglas
Navigation Manager

Ofcom

From: Spectrum Licensing
To: MD Marine Renewables
Subject: Ofcom case : 01703572 -SCOP-0032
Date: 23 October 2023 09:42:30

Classification: CONFIDENTIAL

Good morning,

RE: Ofcom case : 01703572 - SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023

Thank you for contacting Ofcom.

https://www.ofcom.org.uk/manage-your-licence/radiocommunication-licences/fixed-terrestrial-links

Please note that Ofcom no longer provides a dedicated windfarm co-ordination facility.

Instead, stakeholders can now access Ofcom licence information via the Ofcom Spectrum Information System (SIS).
The SIS includes licence data for UK fixed links that are assigned and co-ordinated by Ofcom.
When using the SIS it should be noted that, there are a number of frequency bands that are now authorised on a block basis i.e. these bands are managed and assigned by the licensees themselves and the individual link information for these bands (where a band is being used for fixed links) is not held in Ofcom's licensing and assignment database nor published on the SIS. Our website has further information on these bands and the licensees details.

In addition Scanning Telemetry links, used by the utilities and other services (operating in the bands 457.5 – 458.5 MHz & 463 – 464 MHz), are managed externally by Atkins Limited and the Joint Radio Company (JRC), who can be contacted as follows:

Atkins Limited
200 Broomielaw
Glasgow
G1 4RU
Email: windfarms@atkinsglobal.com

JRC (Joint Radio Company)
Friars House
Manor House Drive

Coventry
CV1 2TE
Email : windfarms@jrc.co.uk
Website: www.jrc.co.uk/what-we-do/wind-farms

If you have any further queries please do not hesitate to contact the Spectrum Licensing Team on 020 7981 3131 or via email at spectrum.licensing@ofcom.org.uk.

Kind regards,

:: Brendan
Licensing Associate
Spectrum Group
Spectrum.licensing@ofcom.org.uk

:: Ofcom
Spectrum Licensing
PO Box 1285
Warrington
WA1 9GL
www.ofcom.org.uk
www.ofcom.org.uk/licensing

We are proud to be BSI ISO 9001 certified. Certificate number : FS 549403.

For more information on licensing visit http://licensing.ofcom.org.uk/

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https://www.surveymonkey.co.uk/r/SpectrumLicensing

Thank you in advance for taking the time to complete this survey. Your feedback is important to us and enables Ofcom to improve your customer experience.

-

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Outer Hebrides Fisheries Trust

From:	Paul Hopper
To:	MD Marine Renewables
Subject:	RE: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date:	20 December 2023 13:19:33
Attachments:	image002.png image005.png image004.png image006.png

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Hello Kate,

I'm aware that you also contacted Jason Laing clerk to the Western Isles District Salmon Fisheries Board and that they provided the response copied below. I would reiterate that the concerns and questions raised in that response are very important from a wild fisheries perspective.

Kind regards, Paul

Paul Hopper | Senior Biologist
Outer Hebrides Fisheries Trust | The Sawmill | Marybank | Isle of Lewis | HS2 0DD

E: biologist@ohft.org.uk T: 01851 703419
www.outerhebridesfisheriestrust.org.uk

RSPB

Marine Directorate Licensing Operations Team
Marine Scotland
By email: MS.MarineRenewables@gov.scot

18th December 2023

Dear Kate,

SCOP-0032 -REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 AND MARINE LICENCE APPLICATION FOR THE SPIORAD NA MARA OFFSHORE WIND FARM

Thank you for consulting RSPB Scotland on the above proposed development located approximately 5 km off the coast of Lewis in in the Sectoral Marine Plan (SMP) Option N4. Our comments primarily focus on the ornithological elements of the scoping report.

We understand the proposed Spiorad Na Mara Offshore Wind Farm would have generating capacity of up to 0.84 to 1 GW and an array area of up to 161 km^2. Two design options are included in the scoping option – option one would have a substation near the landfall whereas option 2 would have between one and three offshore substation platforms. Both would consist of up to 66 fixed bottom wind turbines (each with capacity range of 15 MW to 27 MW), with maximum tip height 380 meters above MSL, rotor diameter of 235 to 330 meters and minimum blade tip clearance to MSL of 22 meters. The proposed development would have a life span of 35 years.

The location of the landfall has yet to be confirmed but three options are included within the scoping design envelope. There will also be associated onshore transmission infrastructure to facilitate connection to the national grid at the planned SSEN Converter Station associated with the upgraded Western Isles HVDC Link. This will require It is unclear whether the proposal includes overhead electrical cables as although collision risk from overhead cables has been scoped out on the assumption there will be none, elsewhere the documents indicates that overhead lines cannot be ruled out in entirety. The exact location of the substation is unknown but is expected to be near Arnish on the east side of Lewis.

We note the HRA screening report will be undertaken separately and is planned to be issued in Q4 2023.

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 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).

The proposed development has a large design envelope. We understand a degree of flexibility in design options where details of the whole project are not available is usually a necessity for renewables energy projects. Sufficient detail must however be provided in the Environmental Statement to allow the impacts of the proposed development to be fully assessed. A lack of specificity can hinder assessment of the development and make it difficult for stakeholders to providing meaningful advice during the determination process.

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. If an Applicant chooses to undertake supplementary modelling using alternative parameters to that recommended, we suggest this is clearly labelled.

Much of the knowledge of offshore windfarms and their impacts to date come from monitoring and the development of models is predominantly based on North Sea wind farms. We nevertheless consider this is the best information available to assess impacts, especially for species common to both areas. Attention should however be paid to behaviour differences between species, for example flight height can differ depending on prey type and this would have implications for collision risk modelling. Overall, 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. An underestimation of impacts will have repercussions when consenting later offshore wind development

As set out in Searle et al (2023)[1], 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.

Assessment of potential impacts

An EIA report is required to include any measures envisaged in order to avoid, prevent, or reduce and, if possible, offset likely significant adverse effects on the environment. The requirement to 'avoid' appears to have been omitted from section 4.3 and Figure 4.3-1. Data collection and assessment should be used to inform the development proposal, minimise impacts and maximise benefits. The "mitigation hierarchy" is the accepted approach to enabling this to happen. Avoidance of any impacts should be the first consideration

[1] Searle, K. R., O'Brien, S. H., Jones, E. L., Cook, A. S. C. P., Trinder, M. N., McGregor, R. M., Donovan, C., McCluskie, A., Daunt, F., and Butler, A., 2023. *A framework for improving treatment of uncertainty in offshore wind assessments for protected marine birds*, ICES Journal of Marine Science, 2023;, fsad025, https://doi.org/10.1093/icesjms/fsad025

followed by the mitigation of any impacts that cannot be avoided, and lastly, any unavoidable remaining should be offset.

When assessing sensitivity and magnitude, it is particularly relevant that:

- The fourth census of Britain and Ireland's internationally important populations of breeding was published in November 2023. The overall picture of one of decline and results show 14 of the 23 seabird species which regularly breed in Scotland have declined since the last census, published in 2004. Just three species have remained stable but two of these – Great Skua and Northern Gannet - are known to have been significantly impacted by Highly Pathogenic Avian Influenzas after the census took place. Climate change, food depletion, adverse weather condition, predation as well as human factors are believed to be the common causes of declines.
- Highly Pathogenic Avian Influenza (HPAI) is devastating UK and global wild bird populations, exacerbating ongoing nature declines across the world. In summer 2022, the UK's seabird populations were hit extremely hard with tens of thousands of birds dying across the UK. Gannet, Great skua Barnacle Geese and terns were especially badly impacted. In 2023, the virus behaved differently and there have been mass die-offs of breeding adult Black-headed Gulls. Significant impacts to terns, Kittiwakes and Guillemots have also been recorded.
- Governments of the UK have collectively failed to meet 11 out of the 15 indicators of Good Environmental Status (GES) for our seas as required under the Marine Strategy Regulations 2010. The marine birds indicator is moving away from target. For breeding seabirds, more species are now experiencing frequent, widespread breeding failures .
- Black-legged Kittiwake and Atlantic Puffin are red listed on the Birds of Conservation Concern and have been assessed by the IUCN as vulnerable to global extinction.
- Seabirds are relatively long-lived, take longer to reach breeding age than most other birds and have just one or two young per year. As a result, their populations are sensitive to small increases in adult mortality.
- Once a temporary impact (e.g. collision risk from the operation of a windfarm) has ceased it will take time for the population to recover.
- The growth of offshore wind is placing great cumulative pressure on seabird colonies.

RSPB Scotland disagree with the magnitude of impact being assessed in terms of predicted increases to baseline mortality. As above, small increases in mortality can have large impacts. It is more meaningful to view impacts across the lifeline of the development in comparison to population size in the absence of the development and consider long-term viability of colonies and time for recovery.

Scoping Questions: Marine and Nearshore Ornithology

Do you agree that the data sources identified are sufficient to inform the Marine and Nearshore Ornithology baseline for the EIA (and therefore that no further baseline data collection, beyond completion of the scheduled digital aerial surveys, is merited)?

The nearby Flannan Isles, St Kilda and North Rona are designated as Special Protected Areas and together support almost the entire UK breeding population of breeding Leach's petrel. These are ocean going species

which return to remote islands during hours of darkness. In addition, Manx Shearwater are qualifying species of the North Rona and Sula Sgeir SPA while Storm Petrel are qualifying species of both North Rona and Sula Sgeir SPA and St Kilda SPAs. The lack of observations of these species in the DAS data has been noted (see Section 6.7.3.5) and limited data available or more sparsely spread distribution when considering foraging ranges has been suggested as reasons why this may be. Mindful of the characteristics of procellariforms (i.e. they are relatively small birds and tend to fly outside the day light hours) and the timings of the DAS (i.e. during the middle of the day), RSPB Scotland considers it likely this type of species will be under recorded in DAS. It is not appropriate to screen out these receptors on this basis. Impacts to these species should be scoped in and we welcome focused survey techniques for these species.

This timing limitation of DAS is also applicable to other species, such as for kittiwake where colonies specific tracking indicates some local populations have commuting behaviours at dawn at dusk. Overall, the timing and context of the aerial studies should be considered in the context of bird usage of the site. It may be necessary to supplement DAS with boat-based surveys and further tagging work.

The fourth census of Britain and Ireland's internationally important populations of breeding was published in November 2023. We recommend this is used as the most up-to-date record of seabird numbers. Further information is available at: Seabirds Count | JNCC - Adviser to Government on Nature Conservation

We also encourage discussion with local ornithology groups as there are anecdotal reports of thousands of sooty (and other) shearwater being present around the West Coast of Lewis in certain weather conditions.

Do you agree with the use of Woodward et al. (2019), or site specific, where available and if greater than Woodward et al. (2019), foraging ranges for Marine and Nearshore Ornithology?

We welcome using foraging ranges as published in Woodward *et al*. (2019)[2] to derive connectivity with SPA colonies. We also recommend that site specific data are examined and where the maximum foraging range from the colony exceeds the generic value, that the site-specific value is used.

The exceptions to this are for common guillemot and razorbill. Tracking on Fair Isle showed foraging for both common guillemot and razorbill distances are greater than those of all other colonies. This may relate to poor prey availability during the study. However, trends for seabirds in the Northern Isles indicate this may be becoming a more frequent occurrence. For all designated sites south of the Pentland Firth (i.e. excluding the Northern Isles), we advise use of mean max (MM) plus one standard deviation (SD) discounting Fair Isle values. For clarity, North Caithness Cliffs SPA is considered to lie south of the Pentland Firth.

[2] Woodward, I., Thaxter, C.B., Owen, E. and Cook, A.S.C.P. (2019). Desk-based revision of seabird foraging ranges used for HRA screening. BTO Research Report No. 724, British Trust for Ornithology, Thetford. ISBN 978-1-912642-12-0.

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	All Northern Isle SPAs	All sites south of Pentland Firth
Common guillemot	153.7 MM+SD	95.2 MM+SD
Razorbill	164.6 MM+SD	122.2 MM+SD

In the non-breeding season, seabirds are not constrained by colony location and can, depending on individual species, range widely within UK seas and beyond.

Have all Marine and Nearshore Ornithology receptors and potential likely significant effects that could result from the Project been identified?

In regard to the preliminary list of key receptor species we encourage a broad-long list at this stage. We also re-iterate species that are unlikely to present in DAS due to size/behaviour despite there being colonies in foraging range should not be scoped out. Impacts to these species must be considered.

For the list of migratory birds in section 6.7.3.8, we consider there are a number of species missing that are reported around West Coast of Lewis. This includes Sooty Shearwater, Long- tailed skua and Pomarine Skua which in suitable weather conditions are reported to number into the thousands. We also recommend bar-tailed godwits and grey phalarope are included in the list of birds for consideration.

Due to the proximity of the site to shore, there are likely other terrestrial species travelling through the area, such as corncrake. Spring and Autumn migration and within season dispersal of corncrake takes place at night and so will not be picked up on aerial surveys. Corncrake are red listed on the UK Birds of Conservation Concern, and whilst there is a lack of information on actual collision risk, the records that exist (e.g. in relation to powerlines) are indicative of either poor flight manoeuvrability or lack of detection of obstacles. Overall, they are a particularly tricky species for which to predict risk of impact in the absence of data, and therefore precaution is necessary.

For Greenland white fronted goose surveys we welcome identification of the foraging areas around the onshore development area of search. We also recommend their migration routes are assessed so that impacts can be avoided and or mitigated.

If the proposed turbines are within a migration route, we suggest an appropriate mitigation measure may be to curtail turbine rotation speed at appropriate times of year to reduce collision risk. This is the approach taken for Dutch North Sea wind turbines during bird migration.

RSPB Scotland has also had reports of White-tailed eagle hunting/ parasitising seabirds off the coast of South Galson and there are observations of White-tailed eagles around North Rona (71km from shore) and St Kilda (60 km from shore) indicate the birds can and do travel out to sea. Other anecdotal information suggests white tailed eagles fly across the proposed site area. As a result of these observations and the proximity of the proposed turbine array to shore, potential for WTE collision risk should be scoped in. As part of this work, flight height of the white-tailed eagles foraging over the sea would need to be ascertained, for example through the use of lidar.

With respect to onshore and intertidal ornithology in Section 7.3, we wish to highlight there is limited knowledge of moorland birds on Lewis and so it is vital representative baseline data is collected. In addition,

should plans change as the application progress and overhead cables be proposed for any sections are proposed then data collection and surveys will need to change to reflect this. We note that the Loch na Muilne RSPB reserve has been identified and the importance of the site for breeding waters, especially red-necked phalarope identified. For clarity, RSPB Scotland do not fully survey for red-necked phalarope and further surveys may be required to understand the potential impacts of the proposed development.

We have concerns that all proposed landfall sites could result in substantial impacts to species listed in Annex 1 of the Birds Directive. Our records indicate that two of the landing sites are in corncrake hotspots and the other would interfere with our reserve for Red-Necked Phalarope and wintering white fronted geese. In accordance with the mitigation hierarchy, avoidance of any impacts should be the first consideration.

Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Marine and Nearshore Ornithology?

We broadly agree with the scoping in and out of the primary impact pathways but consider more thought should be given to secondary and cumulative impact pathways. For example, ocean stratification should be considered in the context of offshore wind development and the effects of this on prey availability and seabird foraging areas scoped in.

Do you agree with the proposed modelling approaches, including the proposed models being used (CRM, displacement matrices/SeabORD, apportioning, and PVA)?

RSPB scotland has outstanding issues with the manner in which the bio-seasons definitions from Furness (2015)[3] have been defined for gannet and kittiwake. This is because by using the "migration-free" seasonal definition as opposed to full breeding season the early and later months of the season are effectively excluded. For example, the kittiwake breeding season is defined as May to July, when evidence from colony monitoring shows that birds are present from April at least to August. In the latter part of the season all birds will have fledged but individual birds will still be present with both young and adult birds coming back to the cliff. These are still SPA birds, and those most likely to be affected by impacts from the development.

We agree with NatureScot (2023) guidance for running CRM. Running CRM with Option 3 provides valuable context, but our decision around significance of impacts will be based on option 2. Similarly running the models deterministically adds context particularly when looking comparatively at older developments.

Although macro-avoidance is not mentioned in the EIA report, we wish to highlight that there is currently no agreed mechanism to combine collision and distributional change modelling, although a framework had been created[4]. We agree with NatureScot that the NE approach of applying a macro-avoidance rate to gannet density prior to calculating collision risk is inappropriate for breeding birds.

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[3] Furness, R.W. (2015) Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Reports, Number 16

[4] Kate Searle, Adam Butler, Deena Mobbs, Mark Trinder, Ross McGregor, Aonghais Cook, Aly McCluskie, Bruno Caneco, and Francis Daunt, (2020) Study to Examine how Seabird Collision Risk, Displacement and Barrier Effects Could be Integrated for Assessment of Offshore Wind Developments. Report to Marine Scotland Science

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Do you agree that the model-specific parameters highlighted above, as taken from NatureScot (2023) guidance, are appropriate for use; and do you have any further recommendations for model-specific parameters?

Whilst the RSPB agree with the majority of the NatureScot advised Avoidance Rates including the use of a 99.2% avoidance rate for non-breeding gannets, in our opinion, a 98% avoidance rate is more appropriate for breeding gannets. This is because the figures used for the calculation of avoidance rates advocated by the SNCBs are largely derived from the non-breeding season for gannet. During the breeding season, gannets are constrained to act as central placed foragers meaning they return to the colony after feeding in order to maintain territories, incubate eggs and provide for chicks. Once chicks have fledged adult gannets remain at sea and no longer visit the colony. Differences in behaviour between the breeding and non-breeding season are likely to result in changes in avoidance behaviour. This seasonally defined change in reactive behaviour will also be reflected in the distributional changes occurring due to the presence of turbines. As such, alongside the 70% displacement rate recommended by NatureScot for the assessment of gannet, we recommend the presentation of 60% displacement rate during the breeding season.

For gannet displacement analysis, an availability bias should also be applied to input densities, following the same logic as for other diving species. (N.B. This is not necessary for densities used in collision risk models as only birds in flight are considered).

Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Marine and Nearshore Ornithology receptors?

We disappointed with the commitment to a minimum blade tip clearance to MSL of 22 meters. Increasing the blade tip clearance is a key collision risk mitigation measure and we therefore recommend the minimum blade tip clearance is increased.

It should be made clear that embedded mitigation will put nature first (e.g. Vessel Management Plan to avoid disturbance, lighting and marking plan to utilise ornithologically friendly design etc). Where mitigation involves reliance on advice from an Ecological Clerk of Works at the time, the Ecological Clerk of Works must be empowered to hold off works if necessary.

Peatland, habitats and carbon impacts

Impact of the onshore cabling, including disturbance to habitats and loss of peat must also be considered.

Although the onshore cable corridor area of search overlaps the Lewis Peatlands SAC and Lewis Peatlands Ramsar Site, we note it is proposed to be significantly refined during the design development to phase of the project to avoid/minimise the loss of protected and priority habitats. We welcome the design commitment to avoid impacts to nationally important carbon rich class 1 and 2 peatlands in the landfall, substation, and grid substation area of search. We also caution against using planning policy to downplay the magnitude, sensitivity, or significance of impact in an environmental statement.

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For the avoidance of doubt, we consider the potential of the project to restore damaged peatland should be first considered in the context of the avoid-mitigate-offset hierarchy (i.e. ensure no net loss). Where further works are proposed to meet the separate requirement to deliver enhancement for biodiversity, going beyond no net loss to ensure the habitats are in a demonstrably better state than without intervention as per NPF4, this should be made clear as part of the application and supporting documents.

EIA Non-technical Summary

RSPB Scotland advocate for the planning and consenting process to be accessible. In relation to ornithology, the EIA will contain complex statistical models, the output of which is not readily understood by a lay person. A non-technical summary (NTS) is therefore vital to set out the main findings of the EIA report in an accessible way and in plain English so that it is easily understood by the public. It should not just describe the process but also clearly present information (to the specifications of the scoping opinion) with interpretation and explanation with clear figures, maps, and tables as necessary. What is meant by 'significant' in an ornithological context should be included.

We recommend the NTS contains clear information on how the mitigation hierarchy has been followed. The mitigation hierarchy requires that:

- Adverse impacts should firstly be avoided as far as possible;
- Any remaining adverse impacts should then be minimised or reduced to as low as practical; and
- For residual adverse impacts which are both unavailable and cannot be reduced further, measures to remedy or offset the impacts should be included within the application.

Finally, should you wish to request any RSPB data, further information and links to the open data portal is available at: Mapping and GIS (rspb.org.uk)

Should you require any further information or clarification, please do not hesitate to get in contact.

Yours sincerely,

Catherine Kelham

Senior Marine Conservation Planner
RSPB Scotland

Sandwick Community Council

Sandwick Community Council

Spiorad na Mara

EIA Scoping Report Responses & Requests

6.2 Underwater Noise
Transparency over the underwater noise levels due to seismic surveying and effects of sonar in the surveying process have been requested.

6.3 Marine Sediment & Water Quality
The Sea Angling Club, Seatrek, Immerse Hebrides, Lewis and Harris sub aqua club and the local fishermen should be consultees.

6.4 Benthic and Intertidal Ecology
The Sea Angling Club, Seatrek Immerse Hebrides, Lewis and Harris sub aqua club and the local fishermen should be consultees.

6.5 Fish and Shellfish Ecology
The Sea Angling Club, Seatrek, Immerse Hebrides, Lewis and Harris sub aqua club and the local fishermen should be consultees.

6.12 Offshore Infrastructure, Other Sea Users, Tourism and Recreation
Currently only identifying Tourism and Recreation at sea. It should include:
Temporary/Permanent displacement of Tourism businesses and Recreational activities on the west side of Lewis, and Lewis wide.
• Bodies like Outer Hebrides Tourism, the Western Isles Tour Guides Association, Visit Scotland, HES, should be consultees.
• Recreational density is high on westside costal areas, beaches and moorland areas. - walkers, surfers, dog-walkers, ornithologists, botanists, wind-surfers, surfers, sea swimmers, Scuba divers visitors to cemetery and places of historical interest.
• Desktop assessment isn't sufficient – in situ research is required to determine what this means for the local economy and for the livelihoods of islanders.

6.13 (Offshore) Seascape, landscape and visual impact assessment
• Consider a wider area to include StKilda, double UNESCO World Heritage Site as well as the Flannan Isles (Special Protected Area).

Any and all areas from where the turbines can be seen should be considered within the visual impact assessment, this is not only the westside of the island.

7. Onshore Impacts
• All onshore infrastructure should be processed through its own planning rather than deemed planning to allow consultation with all consultees, stakeholders and the public. It is crucial that the community are informed and engaged in all developments onshore associated with this infrastructure. The consultees for Onshore Impacts should include all of the Isle of lewis Community Councils and grazings committees with time allowance made for communications with the general public for feedback.
• A visual Impact and Noise impact assessment should be included in the EIA Assessment carefully evaluating the risk that low frequency noise and infrasound pose

to human and nonhuman life within a wide radius of N4 due to the scale of the WTGs and proximity of the project to shore. This assessment should be accompanied by a comprehensive research review on the effects of infrasound on human and nonhuman life.

7.2 Onshore Ecology

- Determination of how impacts will be avoided or mitigated (beyond embedded mitigation) should be carried out in the EIA itself, which would then go to Planning for decision makers to make a judgment on.

7.3 Onshore and intertidal ornithology

- "Collision risk" should be included in the scope (currently "out" of scope) because overhead lines have not been ruled out.
- As Bird surveying is part of the bio diversity quote required for agri-enviroment schemes: a way for grazings to receive funding to improve grazings.
- The impact of the landfall and landfall substations on red and amber list breeding birds should be included in the EIA. Furthermore all breeding birds with potential to amber listing should be included in the EIA
- "As the extent of potential intertidal habitat within 500 m of the Landfall and Landfall Substation Area of Search and Grid Substation Area of Search is extremely limited, and will reduce further as search areas are refined, it is proposed that Intertidal Surveys are scoped out." Intertidal surveys should not be scoped out – even if the areas are limited, survey is needed to find out how important these areas are to feeding birds. (p.467)

7.4 Onshore archaeology and cultural heritage

- The whole of North Lewis and in fact all areas with visibility of the N4 WTG's should be considered part of the Setting Study Area
- The effects of the development on intangible cultural heritage should be included.
- The most significant cultural heritage is the language and heritage of the people, so direct and indirect impacts on the Gaelic language and on people should be included.

7.5 Traffic and Access

Cumulative effects of increased traffic flow should be included in scope – ie tourist traffic, cruise ship traffic and potential onshore projects.

7.9 Land use, tourism and recreation

- All local businesses in lewis should have the opportunity to comment due to the impacts which may be experienced through loss of tourisim This should also include businesses other than tourism and recreation, eg businesses which take inspiration from the landscape and arts businesses.
- The EIA should look at what effect N4 will have on population numbers and the Gaelic language.
- Direct and indirect impacts on local residents and users should be added (not just on tourists and accommodation providers).

7.10 Air quality and Human Health

There should be a comprehensive assessment of the possible Health Effects on Humans living in close proximity to industrial large scale wind turbines, with particular focus on low frequency noise and infrasound.

8.2 Socio-Economics

• Topics that should be considered in the scope:

- Ferry service availability
- Education
- Healthcare and other service provision.
- Housing stock and rental market.
- Effects of infrasound on animals.
- Sunday observance, island and/or Gaelic cultural heritage.
- Community wellbeing.
- Traditional practices such as crofting.
- Fishing.
- Use of common grazing.
- Effects on Hebridean Way.
- Tourism: self catering, Hotels, cafes, restaurants, buses/taxis, gift shops etc etc
- Direct and indirect impacts on local population, and on Gaelic.
- Amenity.
- Feeling of wellbeing.
- likelihood of staying in, or returning to the area.
- Effect on house values.
- Reduction of Gaelic speakers.

• Possible methods & consultees: Consultation with community councils, grazings committees, etc., Desk-based study of services, housing, Consultation with health board,
education providers, CalMac.

- • An evaluation of the overall carbon footprint of N4 should be provided in the EIA. This estimate should provide a detailed breakdown of different contributors to the carbon footprint of N4, taking into consideration all phases of the project life cycle as well as any additional infrastructure that is necessary for N4 to be fully operational. Essential additional infrastructure requires the inclusion of the carbon footprint of the proposed SSEN Converter Station. It is necessary that the carbon footprints of N4 and the SSEN Converter Station (as described on p.39) are evaluated as a combined total given that N4 is dependent on this new Converter Station being built.
  • The overall carbon footprint of N4 will capture all elements of embodied energy including
  but not limited to:
  - Production/sourcing and transportation of materials for offshore and onshore infrastructure
  - Construction of required offshore and onshore infrastructure (including the SSEN Converter Station and undersea cable to the mainland)
  - Maintenance over the life cycle (reporting frequency at which turbines are to be maintained and fuel/method of transport used for the maintenance process)
  - The possibility of increased embodied energy scenarios: whereby concrete mattressing
  is required for scour protection (p.25), inter-array cables (p.33) and export cables (p.34);
  whereby steel skirts for the Gravity Base Structure require the stated maximum base diameter of 80m (p.30); whereby three TJBs are required to house the interface joint between the offshore export cables and onshore cables for the maximum of three cables
  (p.32); whereby a helipad would be included (p.32)

- Electrical and ancillary infrastructure associated with the onshore substation(s) compound(s) as listed on pages 38-39

ScotWays

ScotWays
Upholding public access

MD.MarineRenewables@gov.scot

Licensing Operations Team, Marine Directorate
Scottish Government
Marine Laboratory
Aberdeen
AB11 9DB

Our Ref: 09192
18/12/2023

Dear Sirs,

Regulation 14 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the MW EIA Regulations")

Regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EW EIA Regulations")

(Collectively referred to as "the EIA Regulations")

SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis

Thank you for your email of 19 October 2023 seeking comments on the scoping report for the above proposal. We gratefully acknowledge the extended timescale. It should be noted that these comments only relate to the onshore element of this proposal.

ScotWays records

The National Catalogue of Rights of Way (CROW) does not record any rights of way that cross or are close to the application site as shown on Figure 1.1-1 *Project Overview*.

In searching our records at this scoping stage, we have focussed solely on the immediate area of the proposed application. If required by the applicant to inform their Environmental Impact Assessment (EIA), maps of a wider search area are available from the Society, alongside a more detailed response.

Other Access to Land

You should be aware that other forms of public access to land may affect the proposed application site. More detail about these other types of access is set out in the enclosed Catalogue of Rights of Way Guidance Notes.

Wind Farms and public access

It is our understanding that there is very little guidance regarding the siting of turbines in relation to established paths and rights of way, so we use the following starting principle in considering what could be reasonable:
"a minimum distance, equivalent to the height of the blade tip, from the edge of any public highway (road or other public right of way) or railway line."

ScotWays considers the above sets out a reasonable principle for a recommended minimum separation distance. There could also be site specific factors which would lead us to prefer a larger minimum separation distance; these could include the affected route being one of Scotland's Great Trails or it being known for equestrian use, for example. ScotWays is likely to object to any proposal where the above principle is not followed, including where a micro-siting allowance could lead to turbine encroachment upon a route because it has been insufficiently buffered.

Recreational amenity

As well as direct impacts of development upon public access, ScotWays has an interest in impacts on recreational amenity, so this includes the impact of wind farm development on the wider landscape. We anticipate that the applicant will take into account both recreational amenity and landscape impacts in developing their proposals for this site. We will consider these issues further should this scoping stage lead to a planning application.

Comment

Under section 3 of the Land Reform (Scotland) Act 2003, there is a duty upon landowners to use and manage land responsibly in a way which respects public access rights. Under section 14 of the same Act, access authorities have a duty to uphold access rights. Accordingly, we suggest that the applicant may wish to approach the relevant authority's access team for their input when drawing up their Access Management Plan for their proposed development.

I hope the information provided is useful to you. Please do not hesitate to contact us if you have any further queries.

Yours sincerely,

Lynda Grant
Access Officer

CROW Guidance Notes - Windfarm Developments

These notes explain what is shown on the map(s) provided with our comments and provide information about the public right of access to land in Scotland. All maps are provided on a 1:50,000 scale base.

What is the Catalogue of Rights of Way (CROW)?

CROW was created by ScotWays in the early 1990s with the help of Scottish Natural Heritage (now NatureScot) and local authorities and is an amalgamation of rights of way information from a number of different sources. Mapped at 1:50,000 scale, the catalogue does not include all rights of way – many of these are known only to local people and come to ScotWays' notice only when a problem arises.

CROW is continually updated to take account of new information as it comes to ScotWays' attention.

What is a Recorded Right of Way?

Any right of way that we record in the Catalogue of Rights of Way.

Where any Recorded Rights of Way pass through or close to the wind farm application site a map will be provided showing them.

What is an Other Route?

Any path that we record in the Catalogue of Rights of Way that does not appear to meet the criteria to be a right of way.

Where any Other Routes pass through or close to the wind farm application site a map will be provided showing them.

What is a Heritage Path?

A historic route that forms part of the transport heritage of Scotland. Such routes reflect our cultural and social development and include drove roads, military roads, Roman roads, pilgrim routes and trade routes.

These routes may or may not be rights of way, core paths or carry some other type of designation.

Find out more about the Heritage Paths project at http://www.heritagepaths.co.uk

Where any Heritage Paths pass through or close to the wind farm application site a map will be provided showing them.

What is a Scottish Hill Track?

First published in 1924, our book *Scottish Hill Tracks* is a record of the network of paths, old roads and rights of way which criss-cross Scotland's hill country, from the Borders to Caithness.

These publicised routes may or may not be rights of way, core paths or carry some other type of designation.

Copies of our book *Scottish Hill Tracks* can be purchased from the ScotWays webshop: https://www.scotways.com/shop

Where any *Scottish Hill Tracks* routes pass through or close to the wind farm application site a map will be provided showing them.

Disclaimer

The routes shown on the CROW maps provided have been prepared from information contained in the records of ScotWays, local authorities, judicial and other records. The inclusion of a route in CROW is not in itself definitive of its legal status.

Other Public Access Information

You should be aware that other forms of public access to land may affect the wind farm application site.

Unrecorded Rights of Way

Our records only show the rights of way that we are aware of. Scots law does not require a right of way to be recorded in a specific document or register. Any route that meets the following criteria will be a right of way. This could include any paths, tracks or desire lines within your area of interest. A right of way:

1. Connects public places.
2. Has been used for at least 20 years.
3. Follows a more or less defined route.
4. Has been used by the public without judicial interruption or the landowner's permission.

Core Paths

The Land Reform (Scotland) Act 2003 requires all access authorities to create a system of routes within their area. These are known as core paths and are recorded in the authority's core paths plan. It is anticipated that applicants will have consulted the relevant access authority's core paths plan to check whether any core paths cross or are close to the wind farm application site, and will also have consulted the authority's access team.

The General Right of Access

Irrespective of the presence or absence of rights of way and core paths, the land in question may be subject to the access rights created by Section 1 of the Land Reform (Scotland) Act 2003. Unless the land falls into one of the excluded categories in Section 6 of this Act, the public has a right of access to the land, and land owners/managers have a duty under the Act's Section 3 to consider this in any decisions made about the use/management of the land.

Other Promoted Routes

There may be a promoted route running through or close to any wind farm application site. Such routes will usually be clearly marked with signposts or waymarking and may feature in guidebooks, leaflets, on local information boards and on websites. The two main types of nationally promoted routes are:

Scotland's Great Trails: https://www.scotlandsgreattrails.com
National Cycle Network: https://www.sustrans.org.uk/map-ncn

Public and Private Roads

The Roads (Scotland) Act 1984 created the terms ‘public road’ and ‘private road’. Public roads are those roads which are on the List of Public Roads and which, importantly, the roads authority is required to manage and maintain. Private roads are those roads which are not on the List of Public Roads and thus there is no duty on the roads authority to manage or maintain them. There is a public right of passage over these roads and the owner(s) of a private road may not restrict or prevent the public’s right of passage over the road.

If required, the local roads authority should be contacted by the applicant for more information on public and private roads that may cross or pass close to the application site.

More Information on Outdoor Access Law

If you would like to know more about outdoor access law, visit our website (https://scotways.com/outdoor-access/) or get a copy of our book “*The ScotWays Guide to the Law of Access to Land in Scotland”* by Malcolm M Combe (https://www.scotways.com/shop).

Development and Planning Applications

When proposing to develop a site, it is advisable that the applicant reviews the current amount and type of public access across it and presents this as an access management plan as part of their application. This should include rights of way, core paths, other paths and tracks, and take account of how the statutory right of access currently affects the site.

The plan should then set out the effect that the proposed works, both during construction and upon completion, would have on the patterns of public access identified. Any good practice guidance associated with the proposed type of development should be considered, e.g. for windfarms the NatureScot “*Good Practice during Wind Farm Construction, Part 8 Recreation and Access”* and *“Siting and Designing Wind Farms in the Landscape”*, and the policies contained within any local statutory plans.

Depending upon the proposals, there may be specific legal processes that must be followed to divert any paths or tracks whether temporarily or permanently. These will be in addition to getting planning consent for the proposal. We recommend that applicants contact the access team at the relevant access authority for advice in this regard.

Scottish Environment Protection Agency

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

To whom it may concern
Licensing Operations Team
Marine Directorate
Scottish Government

By email only to: MD.MarineRenewables@gov.scot

Our Ref: 10851
Your Ref: SCOP-0032

SEPA Email Contact:
planning.north@sepa.org.uk

14 December 2023

To whom it may concern

Regulation 14 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the MW EIA Regulations")
Regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EW EIA Regulations")
Spiorad na Mara Offshore Windfarm - offshore & onshore elements - scoping report
Isle of Lewis

Thank you for consulting SEPA for a scoping opinion in relation to the above development .

In line with the advice in the Transitional Arrangements for National Planning Framework 4 letter, our position and advice given below is based on NPF4 policy.

This response relates to the application for consent for onshore elements of the works.

In relation to the application for the offshore elements, please refer to SEPA standing advice for the DBE&IS and Marine Scotland on marine consultations .

Advice for the determining authority

We would welcome engagement with the applicant at an early stage to discuss any of the issues raised.

National Planning Framework 4 (NPF4) has recently been published. The guidance referenced in this response is being reviewed and updated to reflect the new policies. It will still provide useful and relevant information but some parts may be updated further in the future.

Advice for the planning authority / determining authority

To **avoid delay and potential objection** the EIA submission must contain a scaled plan of sensitivities, for example peat, GWDTE, proximity to watercourses, overlain with proposed development. This is necessary to ensure the EIA process has informed the layout of the development to firstly avoid, and then reduce then mitigate significant impacts on the

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Chairman
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environment. We consider that the issues covered in Appendix 1 below must be addressed to our satisfaction in the EIA process. This provides details on our information requirements and the form in which they must be submitted.

The Spiorad na Mara Offshore Windfarm Scoping Report 9/27/2023 appears comprehensive, has taken into consideration all advice relevant to our interests at this time and we have provided site specific comments in the following section which provides pre-application advice and can help the developer focus the scope of the assessment

Site specific comments

We note that :

> *An initial Onshore Development Area of Search has been defined, which includes potential landfall and substation options. Option 1 noted in the section 2.2 requires an onshore substation located on the west side of the Isle of Lewis (referred to as Landfall and the Landfall Substation Area of Search) and an onshore substation located near Arnish where the SSEN Converter Substation may be located (referred to as Grid Substation Area of Search). Option 2 only requires an onshore substation located near Arnish where the SSEN Converter Substation may be located (referred to as Grid Substation Area of Search). Both options require the onshore cable routing (referred to as Onshore Cable Corridor Area of Search) (see Figure 1.1-1).*

We note that Peat depth surveys will be carried out to determine the extent and depth of the peat present across the Onshore Development Area of Search as discussed in section 7.6.3.1 and a National Vegetation Classification (NVC) Survey will be undertaken.

In this case, where much of the site is on peat, we expect an application to be supported by a comprehensive site specific Peat Management Plan which addresses all the requirements of NPF4 Policy 5 as set out below.

We would especially welcome further pre-application engagement once initial peat probing and habitat survey work has been completed and the layout developed further as a result.

Regulatory advice for the applicant
Details of regulatory requirements and good practice advice can be found on the regulations section of our website.

If you have queries relating to this letter, please contact planning.north@sepa.org.uk including our reference number in the email subject.

Yours sincerely

Clare Pritchett
Senior Planning Officer
Planning Service

Disclaimer: This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our website planning pages - www.sepa.org.uk/environment/land/planning/.

Appendix 1: Detailed scoping requirements

This appendix sets out our minimum information requirements and we would welcome receipt and discussion around these prior to formal submission to avoid delays. There may be opportunities to scope out some of the issues below depending on the site. Evidence must be provided in the submission to support why an issue is not relevant for this site to **avoid delay and potential objection.** If there is a significant length of time between scoping and application submission the developer should check whether our advice has changed.

1. **Site layout**

1.1 All maps must be based on an adequate scale with which to assess the information. This could range from OS 1: 10,000 to a more detailed scale in more sensitive locations. Each of the maps below must detail all proposed upgraded, temporary and permanent infrastructure. This includes all tracks, excavations, buildings, borrow pits, pipelines, cabling, site compounds, laydown areas, storage areas and any other built elements. Existing built infrastructure must be re-used or upgraded where possible. The layout should be designed to minimise the extent of new works on previously undisturbed ground. For example, a layout which makes use of lots of spurs or loops is unlikely to be acceptable. Cabling must be laid in ground already disturbed such as verges. A comparison of the environmental effects of alternative locations of infrastructure elements, such as tracks, may be required.

2. **Engineering activities which may have adverse effects on the water environment**

2.1 The site layout should be designed to minimise watercourse crossings and avoid other direct impacts on water features. The submission must include a map showing:

a. All proposed temporary or permanent infrastructure overlain with all lochs and watercourses.

b. A minimum buffer of 50m around each loch or watercourse. If this minimum buffer cannot be achieved each breach must be numbered on a plan with an associated photograph of the location, dimensions of the loch or watercourse and drawings of what is proposed in terms of engineering works. Measures should be put in place to protect any downstream sensitive receptors.

Further advice and our best practice guidance are available within the water engineering section of our website. Guidance on the design of water crossings can be found in our Construction of River Crossings Good Practice Guide.

Refer to our Flood Risk Standing Advice for advice on flood risk.

Crossings must be designed to accommodate the 0.5% Annual Exceedance Probability flows (with an appropriate allowance for climate change), or information provided to justify smaller structures. If it is considered the development could result in an increased risk of flooding to a nearby receptor then a Flood Risk Assessment (FRA) must be submitted. Our Technical flood risk guidance for stakeholders outlines the information we require to be submitted in an FRA. Please also refer to Controlled Activities Regulations (CAR) Flood Risk Standing Advice for Engineering, Discharge and Impoundment Activities.

3. **Disturbance and re-use of excavated peat and other carbon rich soils**

3.1 Where proposals are on peatland or carbon rich soils the following should be submitted to address the requirements of NPF4 Policy 5:

a. layout plans showing all permanent and temporary infrastructure, with extent of excavation required, which clearly demonstrates how the mitigation hierarchy outlined in NPF4 has been applied. These plans should be overlaid on:
   i. peat depth survey (showing peat probe locations, colour coded using distinct colours for each depth category and annotated at a usable scale)
   ii. peat depth survey showing interpolated peat depths
   iii. peatland condition mapping
   iv. NVC habitat mapping.

b) an outline Peat Management Plan (PMP).

c) an outline Habitat Management Plan.

Detailed advice

a) Development design in line with the mitigation hierarchy

3.2 In order to protect peatland and limit carbon emissions from carbon rich soils, the submission should demonstrate that proposals:

- Avoid peatland in near natural condition, as this has the lowest greenhouse gas emissions of all peatland condition categories.
- Minimise the total area and volume of peat disturbance. Clearly demonstrate how the infrastructure layout design has targeted areas where carbon rich soils are absent or the shallowest peat reasonably practicable. Avoid peat > 1m depth.
- Minimise impact on local hydrology.

And

- Include adequate peat probing information to inform the site layout and demonstrate that the above has been achieved. As a minimum this should follow the requirements of the Peatland Survey – Guidance on Developments on Peatland (2017).

3.3 The Peatland Condition Assessment photographic guide lists the criteria for each condition category and illustrates how to identify each condition category. This should be used to identify peatland in near natural condition and can be helpful in identifying areas where peatland restoration could be carried out.

3.4 In line with the requirements of Policy 5d of NPF4, the development proposal should include plans to restore and/or enhance the site into a functioning peatland system capable of achieving carbon sequestration.

(b) The Outline Peat Management Plan (PMP) should also include:

- Information on peatland condition.
- Information demonstrating avoidance and minimisation of peat disturbance.
- Excavation volumes of acrotelmic, catotelmic and amorphous peat. These should include a contingency factor to consider variables such as bulking and uncertainties in the estimation of peat volumes.
- Proposals for temporary storage and handling.
- Reuse volumes in different elements of site reinstatement and restoration.

3.5 Handling and temporary storage of peat should be minimised. Catotelmic peat should be kept wet, covered by vegetated turves and re-used in its final location immediately after excavation. It is not suitable for use in verge reinstatement, re-profiling/ landscaping, spreading, mixing with mineral soils or use in bunds.

3.6 Disposal of peat is not acceptable. It should be clearly demonstrated that all peat disturbed by the development can be used in site reinstatement (making good areas which have been disturbed by the development) or peatland restoration (using disturbed peat for habitat restoration or improvement works in areas not directly impacted by the development, which may need to include locations outwith the development boundary).

3.7 The faces of cut batters, especially in peat over 1m, should be sealed to reduce water loss of the surrounding peat habitats, which will lead to indirect loss of habitat and release of greenhouse gases. This may be achieved by compression of the peat to create an impermeable subsurface barrier, or where slope angle is sufficiently low, by revegetation of the cut surface.

(c) The Outline Habitat Management Plan should include:

- Proposals for reuse of disturbed peat in habitat restoration, if relevant.
- Details of restoration to compensate for the area of peatland habitat directly and indirectly impacted by the development.
- Outline proposals for peatland enhancement in other areas of the site.
- Monitoring proposals.

3.8 To support the principle of peat reuse in restoration the applicant should demonstrate that they have identified locations where the addition of excavated peat will enhance the wider site into a functional peatland system capable of achieving carbon sequestration. The following information is required:

- Location plan of the proposed peatland re-use restoration area(s), clearly showing the size of individual areas and the total area to be restored.
- Photographs, aerial imagery, or surveys to demonstrate that the area identified is appropriate for peat re-use and can support carbon sequestration. This should include consideration of an appropriate hydrological setting and baseline peatland condition.

3.9 In addition, if any proposed re-use restoration areas are outwith the ownership of the applicant, information should be provided to demonstrate agreement in principle with the landowner, including agreed timescales for commencement of the works, and proposed management measures to ensure the restored areas can be safeguarded in perpetuity as a peatland.

3.10 NatureScot's technical compendium of peatland restoration techniques provides a useful overview of the procedural and technical requirements for peatland restoration.

4. Disruption to GWDTE and existing groundwater abstractions

4.1 Groundwater Dependent Terrestrial Ecosystems (GWDTE) are protected under the Water Framework Directive. Excavations and other construction works can disrupt groundwater flow and impact on GWDTE and existing groundwater abstractions. The layout and design of the development must avoid impacts on such areas. A National Vegetation Classification survey which includes the following information should be submitted:

a. A map demonstrating all GWDTE and existing groundwater abstractions are outwith a 100m radius of all excavations shallower than 1m and outwith 250m of all excavations deeper than 1m and proposed groundwater abstractions. The survey needs to extend beyond the site boundary where the distances require it.

b) If the minimum buffers cannot be achieved, a detailed site specific qualitative and/or quantitative risk assessment will be required. Please refer to Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems for further advice and the minimum information we require to be submitted.

5. **Borrow pits**

5.1 The following information should also be submitted for each borrow pit:

a. A map showing the location, size, depths and dimensions.
b. A map showing any stocks of rock, overburden, soils and temporary and permanent infrastructure including tracks, buildings, oil storage, pipes and drainage, overlain with all lochs and watercourses to a distance of 250m. You need to demonstrate that a site specific proportionate buffer can be achieved. On this map, a site-specific buffer must be drawn around each loch or watercourse proportionate to the depth of excavations and at least 10m from access tracks.
c. Sections and plans detailing how restoration will be progressed including the phasing, profiles, depths and types of material to be used.

6. **Pollution prevention and environmental management**

6.1 A schedule of mitigation supported by the above site specific maps and plans must be submitted. These must include reference to best practice pollution prevention and construction techniques (for example, limiting the maximum area to be stripped of soils at any one time) and regulatory requirements. They should set out the daily responsibilities of Ecological Clerk of Works, how site inspections will be recorded and acted upon and proposals for a planning monitoring enforcement officer. Please refer to the Guidance for Pollution Prevention (GPPs) and our water run-off from construction sites webpage for more information.

7. **Life extension, repowering and decommissioning**

7.1 Proposals for life extension, repowering and/or decommissioning must demonstrate accordance with SEPA Guidance on the life extension and decommissioning of onshore wind farms. Table 1 of the guidance provides a hierarchical framework of environmental impact based upon the principles of sustainable resource use, effective mitigation of environmental risk (including climate change) and optimisation of long term ecological restoration. The submission must demonstrate how the hierarchy of environmental impact has been applied, within the context of latest knowledge and best practice, including justification for not selecting lower impact options when life extension is not proposed.

7.2 The submission needs to state that there will be no discarding of materials that are likely to be classified as waste as any such proposals would be unacceptable under waste management licensing. Further guidance on this may be found in the document Is it waste - Understanding the definition of waste.

Scottish Fishermen’s Federation

Our Ref: FH-SnMOW/23-0001

Your Ref: SCOP-0032

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Scotland UK

T: [redacted]
E: sff@sff.co.uk

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E-mail: MD.MarineRenewables@gov.scot
18 December 2023

Dear Kate,

SFF Response on Spiorad na Mara Offshore Wind Farm Project EIA Scoping Consultation

This response to the scoping request is presented by the Scottish Fishermen's Federation on behalf of the 450 plus fishing vessels in membership of its constituent associations, 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.

SFF note from sections 1.5.2 'Approach' and 2.4 'Project Design Envelope Approach' that the PDE approach (also known as the 'Rochdale Envelope Approach') will be adopted for the Environmental Impact Assessment (EIA) Report. Therefore, the following comments are based on existing details provided in this Scoping Report and further comments will be provided in due course once the Project's designed is finalised.

Type of Foundations

SFF note from 2.6.2 Foundations, p25 that considering the depth of water, the EIAR will consider a range of fixed foundation types, including monopiles, tripods, jackets, suction bucket, and Gravity Base Structures (GBS). While some floating foundation concepts may be feasible, they are unlikely to be cost -effective for this site and its programme for installation.

SFF recognises the Applicant's conclusion on not use of floating foundation and support the use of fixed foundation WTG since they have less footprint and create minimal snagging hazard and disruptions for fishing vessels.

Cable protection measures

SFF notes from section 2.6.2.1 Inter-Array Cables, p31 that the inter-array cables will be buried (up to 3 m subject to cable burial risk assessment) where possible. Where shallow/no burial occurs, external cable protection will be deployed. The same fact has been noted for interconnector and export cables.

First of all, SFF would suggest to the Applicant to make all efforts to reach the required depth of cable burial and avoid using cable protection measures as much as possible since the proposed volume of cable protection mass is vast - that will disrupt the marine habitat and would create snagging hazard for fishing vessels within array area, interconnector and export cables routes.

In terms of using cable protections, SFF are opposed to using concrete mattresses and rock bags in open water since they create severe snagging hazards for bottom trawl fishing vessels and static gears. SFF's preferred cable protection measure is rock dump/protection considering industry standard rock size (1"- 5") with a 1:3 profile followed by an overtrawl sweep alongside a long-term monitoring programme. We do not object to use of grout bags in cable protection works as long as their size are small (not too big) to create snagging hazard for fishing vessels. However, we are content with using of proposed cable protection system if all required safety measures for fishing vessels such as rock protection is considered.

Boulder Clearance

SFF notes from Chapter (Ch) 2, that a significant area of seabed needs to be cleared for different types of cable works while the number of boulders being relocated is not known at present. Since the relocation of boulders from their natural positions and re-positioning them on new surface causes snagging hazard for fishing vessels, SFF would suggest avoiding the relocation of boulders as much as possible. However, where boulders relocation is unavoidable, we recommend the new locations/coordinates of the relocated boulders should be recorded and shared with fishermen. 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.

Decommissioning

Section 3.9, of the Report discusses the need for decommissioning however specific details on decommissioning plan/programme has not been provide. SFF would like to see all development related infrastructures are recovered/removed to shore followed by overtrawl sweeps. The seabed is restored to its pre-development condition post-decommissioning, and it is safe for fishing operations to fully resume in the area.

Ch. 6.4 Benthic Subtidal Ecology

Scoping Questions

Following are the SFF's response on the relevant questions:

• Have all Benthic and Intertidal Ecology receptors and potential likely significant effects that could result from the Project been identified?

SFF's answer:

The impacts to benthic invertebrates due to thermal emissions from subsea electrical cables have not been identified.

• Do you agree with the proposed approach to assessment (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Benthic and Intertidal Ecology?

SFF's answer:

SFF would like to see the "Impacts to benthic invertebrates due to thermal emissions from subsea electrical cables" and "impacts to seasonal stratification of the water column" also be scoped in

since any temperature change in the invertebrate's habitat would have adverse effects on their behaviour and increase their mortality rate.

• Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on Benthic and Intertidal Ecology receptors?

SFF's answer:
Besides cable burial, given the lack of scientific proofs that reject adverse effects of EMF and cable heat on fish, shellfish, and invertebrates, SFF suggests that precautionary measures to be taken while proceeding with offshore wind farms**.**

Ch. 6.5 Fish and Shellfish Ecology
Scoping Questions

• Have all Fish and Shellfish Ecology receptors and potential likely significant effects that could result from the Project been identified?

SFF's response:
SFF would like to see the **"**Underwater sound from wind turbine operation" to be scoped in to determine the limit/depth of wind turbine sound impacts on the fish near the wind turbine and to ensure the behavioural changes amongst the fish are not severe/detrimental.

• Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Fish and Shellfish Ecology?

SFF's response:
See response above.

• Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Fish and Shellfish Ecology receptors?

SFF's response:
Since the development sits in some fish (Atlantic herring, whiting, mackerel, sandeel and more) and shellfish (European spiny lobster (crawfish), nephrops (Norway lobster), green crab, velvet swimming crab, brown crab *Cancer*, brown shrimp, razor clams *Solen* spp., and common whelk) spawning and nursery areas, SFF would suggest that construction activities should be scheduled outwith the fish and shellfish spawning and nursery periods/seasons to avoid any detrimental effects on the relevant fish and shellfish species.

Ch. 6.9 Commercial Fisheries
Scoping Questions

• Do you agree that the data sources identified are sufficient to inform the Commercial Fisheries baseline for the EIA (and therefore that no further baseline data collection is merited)?

SFF's answer:
Yes, however, further engagement with fishing industry on the authentication of the data accuracy would be beneficial.

• Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on Commercial Fisheries receptors?

SFF's answer:
We would propose the following measures should also be considered:
•Development of and adherence to a Fisheries Management and Mitigation Strategy (FMMS) by the developer. We would propose the FMMS to be developed and adopted pre-consent/development in consultation with fishing industry to ensure all fishing industry's concerns are considered and addressed accordingly.

• As part of the measures, there is not measure for disruption payments for the fishing vessels. SFF suggest that the cooperation agreement should be considered for the static and mobile gears where they are required to be relocated or their fishing activities are disrupted.

• Notice to Mariners (NtM), Kingfisher Bulletin publications…etc: We would like to see any such information are shared with fishing industry with enough time in advance to ensure no disruption is caused to fishing industry.

• Adherence to ColRegs to be taken seriously and a vessel management plan be devised in consultation with fishing industry to avoid any disruption to fishing vessel in the area.

Ch. 6.10 Shipping and Navigation
Scoping Questions

• Do you agree that the Shipping and Navigation Study Area, data sources identified (Table 6.11-1) and the proposed site-specific vessel traffic surveys are sufficient to characterise the Shipping and Navigation baseline for the EIA (and therefore that no further baseline data collection is merited)?

SFF's answer:
The dataset seems to be upto 2020 that can be updated.

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.

Best regards

Mohammad Fahim Hashimi
Offshore Energy Policy Officer
Scottish Fishermen's Federation

Shawbost Community Council

Shawbost Community Council

Spiorad na Mara EIA Scoping Report Responses & Requests

6.2 Underwater Noise

Transparency over the underwater noise levels due to seismic surveying and effects of sonar in the surveying process have been requested.

6.3 Marine Sediment & Water Quality

The Sea Angling Club, Seatreck and the local fishermen should be consultees.

6.4 Benthic and Intertidal Ecology

The Sea Angling Club, Seatreck and the local fishermen should be consultees.

6.5 Fish and Shellfish Ecology

The Sea Angling Club, Seatreck and the local fishermen should be consultees.

6.12 Offshore Infrastructure, Other Sea Users, Tourism and Recreation

- This only includes Tourism and Recreation at sea. It should include: **Temporary/Permanent displacement of Tourism businesses and Recreational activities on the west side of Lewis, and Lewis wide.**
- Bodies like **Outer Hebrides Tourism, the Western Isles Tour Guides Association, Visit Scotland, HES,** should be consultees.
- Recreational density is high on Bragar machair - walkers, surfers, dog-walkers, ornithologists, botanists, wind-surfers, visitors to cemetery and Teampall Eoin Scheduled Monument.
- There are a number of Coastal Rowing groups operating along the West Side. A request has been made from these groups to be made statutory consultees. These groups include RowFlo and An Eathar.
- Desktop assessment isn't sufficient – in situ research is required to determine what this means for the local economy and for the livelihoods of islanders.

6.13 (Offshore) Seascape, landscape and visual impact assessment

- A precautionary approach might consider a wider radius, e.g., **120km to include St Kilda, double UNESCO World Heritage Site as well as the Flannan Isles (Special Protected Area)**

- **Suggest these impacts are included in EIA scope** (currently scoped out) - due to the sensitive offshore islands of St Kilda, as well as visual impact on the Flannan Isles: 1. ***"Operation and maintenance phase seascape, landscape, and visual impacts of the offshore elements of the Project outside the 60 km radius SLVIA Study Area"*** *and 2.* ***"Impact of the operation and maintenance of the Project on the views experienced by offshore visual receptors"***

- **Further consultees** should be considered in addition to those listed, such as **HES, local community councils, grazing committees & estates.**

- Suggested viewpoints – **Teampall Eòin Scheduled Monument, Dalbeg village, Beinn na Cloich (NB2444), Arnol village, Beinn Bragar, A858 road between Brue and Arnol, A858 road at Bragar/Arnol bridge, North Shawbost, Labost road Bragar.**

7. Onshore Impacts

- The **consultees** for Onshore Impacts should include **Community Councils and grazings committees.**

- In addition to a Visual Impact Assessment, **the EIA should include a Noise Impact Assessment** carefully evaluating the risk that low frequency noise and infrasound pose to human and nonhuman life within a wide radius of N4 due to the scale of the WTGs and proximity of the project to shore. **This assessment should be accompanied by a comprehensive review of peer-reviewed research on the effects of infrasound on human and nonhuman life.**

7.2 Onshore Ecology

- This section appears to present more vague information than other chapters, such as the chapters on offshore ecology, stating that the areas in which development might take place are as yet undecided. **This appears to be at odds with the principle applied elsewhere in the EIA Scoping Report where the worst-case scenario is used for the scoping assessment.**

- In the "justification" column of the impact tables (p.440-445) it also goes further than justifying why the selected impacts are/are not included, going on to suggest how the impacts might be mitigated. **Determination of how impacts will be avoided or mitigated (beyond embedded mitigation) should be carried out in the EIA itself, which would then go to Planning for decision makers to make a judgment on.**

7.3 Onshore and intertidal ornithology

- "**Collision risk" should be included in the scope (currently "out" of scope) because overhead lines have not been ruled out.**

- "*As the extent of potential intertidal habitat within 500 m of the Landfall and Landfall Substation Area of Search and Grid Substation Area of Search is extremely limited, and will reduce further as search areas are refined, it is proposed that Intertidal Surveys are scoped out."* **Intertidal surveys should not be scoped out – even if the areas are limited, survey is needed to find out how important these areas are to feeding birds. (p.467)**

- Bird surveying is part of the bio diversity quote required for agri-enviroment schemes: a way for grazings to receive funding to improve grazings.

- The impact of the landfall and landfall substations on red and amber list breeding birds should be included in the EIA.

7.4 Onshore archaeology and cultural heritage

- 'Setting' is the way the surroundings of a historic asset or place contribute to how it is understood, appreciated and experienced" p471. **A 10 km Setting Study Area on the Isle of Lewis is proposed. The WTGs will be visible as far away as Point, on the east side of Lewis, so the Setting Study Area should be extended to include the whole of north Lewis.**

- **The effects of the development on intangible cultural heritage should be included.**

- **The most significant cultural heritage is the language and heritage of the people, so direct and indirect impacts on the Gaelic language and on people should be included.**

7.5 Traffic and Access

Cumulative effects of increased traffic flow should be included in scope - due to the project coinciding with greater number of cruise ship tourist traffic and onshore projects.

7.9 Land use, tourism and recreation

- This **should include businesses other than tourism and recreation, eg businesses which take inspiration from the landscape and arts businesses.**

- There **should be an Impact on Local Population section.** All the public bodies, Scotgov, CnES, HIE, etc have as an aim the increase of population in areas like the west side of Lewis, as well as increasing the numbers of Gaelic speakers. **The EIA should look at what effect N4 will have on population numbers and the Gaelic language**.

- **Direct and indirect impacts on local residents and users should be added (not just on tourists and accommodation providers).**

7.10 Air quality and Human Health

This seems only concerned with dust. T**here should be a comprehensive assessment of the possible Health Effects on Humans living in close proximity to industrial large scale wind turbines, with particular focus on low frequency noise and infrasound.**

8.2 Socio-Economics

- This section is extremely limited in scope. **The socio-economic assessment could be improved by including qualitative elements, e.g., Sunday as a day of rest, as well as easily-researched issues relating to the capacity of and limitations to connectivity and services on the island**. These issues will be particularly important in the Construction and Decommissioning stages where an i**nflux of temporary workers may have a significant impact on the socio-economic stability of the island and general wellbeing of the population.**

- **Topics to consider in the scope:** Ferry service availability, education, healthcare and other service provision, housing stock and rental market, health impacts on farm animals (infrasound), demographics, Sunday observance, island and/or Gaelic cultural heritage and identity, arts, community wellbeing, traditional practices such as crofting, fishing, use of common grazing, effects on Hebridean Way, tourism: self catering, pods etc.

- **Direct and indirect impacts on local population, and on Gaelic, should be added to scoping.** Amenity, feeling of wellbeing, likelihood of staying in, or returning to the area, plus effect on house values. (note: studies show that the army base on Benbecula resulted in the reduction of Gaelic speakers. Similarly in Kinlochleven or Kishorn, where large numbers of jobs were created by development agencies but this accelerated the shift away from the Gaelic language.

- Community bodies which are central to the wellbeing of the West Side communities, such as **Urras Coimhearsnachd Bhradhagair agus Arnoil (Bragar and Arnol Community Trust) should be added to the consultee list.**

- Possible methods & consultees: Consultation with community councils, grazings committees, etc., Desk-based study of services, housing, Consultation with health board, education providers, CalMac.

- The report states:

  "**There are no recognised standards or legislative requirements for assessing Socio-economics**; therefore, a combination of Environmental Impact Assessment (EIA) best practice, professional judgement and relevant legislation, policy and guidance has been used to form the approach to this assessment. Socio-economic Study Areas are defined at either a local, regional and national scale, to identify the different extents of Socio-economic opportunities at varying geographical scales. For the purposes of this assessment, local, regional, and national will be defined as:

Local – Isle of Lewis; Regional – the Outer Hebrides ('Na H-Eileanan Siar'); National – Scotland." (p.604)

This states that the purpose of the Socio-economic Study is to identify 'the different extents of Socio-economic opportunities…'. **We would recommend that it be changed to looking at 'the different extents of Socio-economic opportunities and threats…'**

The Local should be the west side of Lewis, from Shader to Bernera, the Regional should be Lewis. If they want the Outer Hebrides that should be Council Area. The N4 windfarm will have no impact on, eg, Barra or South Uist.

Overall Impact

- In order to provide a comprehensive assessment of environmental impact, **an evaluation of the overall carbon footprint of N4 should be provided in the EIA**. **This estimate should provide a detailed breakdown of different contributors to the carbon footprint of N4, taking into consideration all phases of the project life cycle as well as any additional infrastructure that is necessary for N4 to be fully operational. Essential additional infrastructure requires the inclusion of the carbon footprint of the proposed SSEN Converter Station. It is necessary that the carbon footprints of N4 and the SSEN Converter Station (as described on p.39) are evaluated as a combined total given that N4 is dependent on this new Converter Station being built.**

- The overall carbon footprint of N4 will capture all elements of embodied energy including but not limited to:
  - Production/sourcing and transportation of materials for offshore and onshore infrastructure
  - Construction of required offshore and onshore infrastructure (including the SSEN Converter Station and undersea cable to the mainland)
  - Maintenance over the life cycle (reporting frequency at which turbines are to be maintained and fuel/method of transport used for the maintenance process)
  - The possibility of increased embodied energy scenarios: whereby concrete mattressing is required for scour protection (p.25), inter-array cables (p.33) and export cables (p.34); whereby steel skirts for the Gravity Base Structure require the stated maximum base diameter of 80m (p.30); whereby three TJBs are required to house the interface joint between the offshore export cables and onshore cables for the maximum of three cables (p.32); whereby a helipad would be included (p.32)
  - Electrical and ancillary infrastructure associated with the onshore substation(s) compound(s) as listed on pages 38-39

Key Concerns

- The lack of evidence on socio-economic impacts is problematic, especially when combined with the absence of a comprehensive human health risk assessment conducted by an independent body. In addition to SEPA, the list of Stakeholders (Chapter 5.2) should include an independent medical body as a Stakeholder to advise on human health impacts of WTGs and onshore infrastructure.

- The consultees for Onshore Impacts (7.1) should include Community Councils and other community bodies such as Grazings Committees, so as to provide appropriate community input and representation.

- In addition to a Visual Impact Assessment, the EIA should include a Noise Impact Assessment carefully evaluating the risk that low frequency noise and infrasound pose to human and nonhuman life within a wide radius of N4 due to the scale of the WTGs and proximity of the project to shore. This assessment should be accompanied by a comprehensive review of peer-reviewed research on the effects of infrasound on human and nonhuman life.

- Human health in general should be scoped in. There are many peer reviewed studies detailing the detrimental effects living and working in close proximity to turbines above 150m can cause.

South Bragar Grazings Committee

Northland Power - Spiorad na Mara wind farm:

contact@northlandpowerscotwind.co.uk

spioradnamara@northlandpower.com

MD LOT (Marine Directorate Licencing Operations Team):

ms.marinelicensing@gov.scot

Annabel Turpie (head of Marine Sotland): ceu@gov.scot

Sections we would like to be consulted on:

6.12 Offshore Infrastructure, Other Sea Users, Tourism and Recreation

6.13 (Offshore) Seascape, Landscape & Visual Impact Assessment

7.4 Onshore archaeology and cultural heritage

7.9 Land use, tourism and recreation

8.2 Socio Economics

Comments on the Scoping Report

6.12 Offshore Infrastructure, Other Sea Users, Tourism and Recreation

This section should include under Potential Likely Significant Effects (both Construction and Decommissioning and Operation and Maintenance):

Temporary/Permanent displacement of Tourism Businesses and recreational activities on the west side of Lewis.

Temporary/permanent displacement of traditional crofting/fishing activities.

6.13 (Offshore) Seascape, Landscape & Visual Impact Assessment

There are no Proposed Represetative Viewpoint Locations in Bragar. Suggest adding Labost road, and Teampall Eòin Scheduled Monument.

7 Onshore impacts

In addition to a Visual Impact Assessment, the EIA should include a Noise Impact Assessment carefully evaluating the risk that low frequency noise and infrasound pose to human and nonhuman life within a wide radius of N4 due to the scale of the WTGs and proximity of the

project to shore. This assessment should be accompanied by a comprehensive review of peer-reviewed research on the effects of infrasound on human and nonhuman life.

7.4 Onshore archaeology and cultural heritage

Under Potential Likely Significant Effects, indirect impacts on intangible cultural heritage should be included. The most significant cultural heritage is the language and heritage of the people, so direct and indirect impacts on people should be included.

7.9 Land use, tourism and recreation

Under Potential Likely Significant Effects:

Construction and decommissioning - Direct and indirect impacts on land users should be added (not just on tourists and accommodation providers)

Operation and maintenance - Direct and indirect effects on the amenity of those who work the land and use it for recreation year-round should be included, not just the amenity of visitors.

8.2 Socio Economics

This states that the purpose of the Socio-economic Study is to identify 'the different extents of Socio-economic opportunities…'. We would recommend that this be changed to looking at 'the different extents of Socio-economic opportunities and threats…'

We would recommend that Local should be the west side of Lewis, from Shader to Bernera, and Regional should be the Isle of Lewis. The direct impacts will be on the coastal settlements overlooking the site. Spiorad na Mara will have no impact on the Uists and Barra.

Under Likely Significant Effects, both for Construction & Decommissioning, and Operation and Maintenance: Direct and Indirect Impacts on the Local Population should be added. The EIA should look at the effect Spiorad na Mara will have on population numbers and the Gaelic language.

Under Likely Significant Effects, Construction & Decommissioning: Direct and Indirect Impacts of a large influx of temporary workers on communities should be added. Topics to consider in the scope: ferry service availability, education, healthcare and other service provision, housing stock and rental market, demographics, Sunday observance, island and/or Gaelic cultural heritage and identity, arts, community wellbeing, traditional practices such as crofting, fishing, use of common grazing.

Under Likely Significant Effects, both for Construction & Decommissioning, and Operation and Maintenance: Impact on house values on the west side of Lewis should be added.

Scottish and Southern Electricity Networks

Scottish Hydro Electric Transmission Plc.
10 Henderson Road
Inverness
IV1 1SN

Spiorad na Mara Limited
77 Renfrew Street
Glasgow
Scotland
G2 3BZ

and

Marine Scotland – Licensing and Operations Team
By email: MS.MarineRenewables@gov.scot

15 December 20233

Dear Sir/Madam,

REF: **SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion**

Thank you for the opportunity to respond to the Scoping Report, Marine Licence Application (SCOP-0032), associated with the Spiorad na Mara Offshore Wind Farm.

Scottish Hydro Electric Transmission Plc (SSEN Transmission) notes that final landfall locations have not been finalised but that the proposed design is for cable landfall to be made on the West coast of Lewis with a land cable to coming into the North of SSEN Transmissions grid substation area of search. SSEN Transmission foresees no issues at this time arising from the proposed marine elements of this project in relation to our own Western Isles HVDC connection project.

SSEN Transmission requests that future cables are given due consideration and that provision is maintained for cables to cross both export cables and the generation site, and that the freedom of the seas is maintained. SSEN Transmission has no further comment to make on the marine elements of this scoping report. Consideration of any onshore elements will be considered separately within the appropriate consultation of the respective licencing authority.

We encourage Spiorad na Mara Limited to continue to engage with SSEN Transmission as our respective projects on Lewis continue to develop.

Yours Sincerely,

Euan Mackenzie

Marine Consents and Environment Manager

euan.mackenzie@sse.com

From:	Burnett, Robin (Distribution)
To:	MD Marine Renewables
Cc:	Hodge,Chris (Distribution)
Subject:	Re: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 November 2023
Date:	03 November 2023 12:53:46
Attachments:	image001.png

Hello,

The above consultation has been forwarded to me by a colleague as of potential interest regarding Scottish Hydro Electric Power Distribution (SHEPD) subsea cable assets. Having reviewed the scoping report SHEPD have no comments to make on this.

Best regards,
Robin.

Robin Burnett
Lead Marine Consents Manager – Subsea Cables
Scottish and Southern Electricity Networks
Henderson Road
Inverness IV1 1SN
[redacted]

sse.com

Scottish & Southern Electricity Networks

Scottish Forestry

Scottish Forestry
Coilltearachd na h-Alba

Glèidhteachais a Gàidhealtachd's nan Eilean
"Fearann – coilleach"
Rathad Fodderty
Inbhir Pheofharain

Highland and Islands Conservancy
"Woodlands"
Fodderty Way
Dingwall

IV15 9XB

highland.cons@forestry.gov.scot
Tel: 0300 067 6950

Conservator
Neach Dion Arainneachd
Neil Murray

24 October 2023

Licensing Operations Team, Marine Directorate
Scottish Government

by email: MD.MarineRenewables@gov.scot

Dear Kate

Regulation 14 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the MW EIA Regulations")

Regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ("the EW EIA Regulations")

REQUEST FOR SCOPING OPINION FOR PROPOSED Spiorad na Mara Offshore Windfarm – Isle of Lewis

Thank you for consulting Scottish Forestry on the Scoping Report for the proposed Spiorad na Mara Offshore Windfarm – Isle of Lewis (proposed development). Scottish Forestry is the Scottish Government agency responsible for policy, support and regulation of the forestry sector in Scotland. As such we comment on the potential impact of development proposals on forests and woodlands.

The first consideration for all woodland removal decisions should be whether the underlying purpose of the proposals can reasonably be met without resorting to woodland removal. Scottish Government's Policy on Control of Woodland Removal clearly sets out a strong presumption in favour of protecting Scotland's woodland resources.
https://forestry.gov.scot/support-regulations/control-of-woodland-removal

In line with Scottish Government's wider objective to protect and expand Scotland's woodland cover, applicants are expected to develop their proposal with minimal woodland removal. Woodland removal should be allowed only where it would achieve significant and clearly defined additional public benefits.

Scottish Forestry
Coilltearachd na h-Alba

As the applicant's Scoping Report suggests that individual trees, plantation forestry and woodland may be affected by the proposed development, the following criteria for determining the acceptability of woodland removal should be considered relevant to this application –

- ***Woodlands with a strong presumption against removal***
  Only in exceptional circumstances should the strong presumption against woodland removal be overridden. Proposals to remove these types of woodland should be judged on their individual merits and such cases will require a high level of supporting evidence. Where woodland removal is justified, the Compensatory Planting (CP) area must exceed the area of woodland removed to compensate for the loss of environmental value.

- ***Woodland removal with a need for compensatory planting***
  Design approaches that reduce the scale of felling required and/or converting the type of woodland to another type (such as from tall conifer plantation to low-height, slow growing woodland), must be considered from the earliest stages, rather than removing the woodland completely. The purpose of any required CP is to secure, through new woodland on site (replanting) or off site (on appropriate sites elsewhere), at least the equivalent woodland-related net public benefit embodied in the woodland to be removed.

Adopted and published by Scottish Ministers on Monday 13 February 2023, National Planning Framework 4 - Policy 6 Forestry, Woodlands and trees identifies several themes that should be considered, relevant to this application –

b) Development proposals will not be supported where they will result in:
i. Any loss of ancient woodlands, ancient and veteran trees, or adverse impact on their ecological condition;
ii. Adverse impacts on native woodlands, hedgerows and individual trees of high biodiversity value, or identified for protection in the Forestry and Woodland Strategy;
iii. Fragmenting or severing woodland habitats, unless appropriate mitigation measures are identified and implemented in line with the mitigation hierarchy;

c) Development proposals involving woodland removal will only be supported where they will achieve significant and clearly defined additional public benefits in accordance with relevant Scottish Government policy on woodland removal. Where woodland is removed, compensatory planting will most likely be expected to be delivered.

d) Development proposals on sites which include an area of existing woodland or land identified in the Forestry and Woodland Strategy as being suitable for woodland creation will only be supported where the enhancement and improvement of woodlands and the planting of new trees on the site (in accordance with the Forestry and Woodland Strategy) are integrated into the design.

Conclusion
Scottish Forestry welcomes the developers acknowledgement within the Scoping Report of the requirements of the Control of Woodland Removal Policy. Scottish Government's policy on control of woodland removal: implementation guidance February 2019 https://forestry.gov.scot/support-regulations/control-of-woodland-removal provides guidance on the level and detail of information Scottish Forestry will expect within the EIA Report, to help us reach an informed decision on the potential impact of the proposed development.

Scottish Forestry request the developers include detailed information on the types and areas of forestry to be felled and restocked as a result of the proposed development. Detailed information on any compensatory planting proposals should also be provided. All felling, restocking and compensatory planting proposals must be compliant with the UK Forestry Standard. https://forestry.gov.scot/sustainable-forestry/ukfs-scotland

Any additional felling which is not part of the planning application will require permission from Scottish Forestry under the Forestry and Land Management (Scotland) Act 2018 (the Act). For areas covered by an approved Long Term Forest Plan (LTFP), the request for additional felling (and subsequent restocking) areas needs to be presented in the form of LTFP amendment. https://forestry.gov.scot/support-regulations/felling-permissions

The applicant should note that any compensatory planting required as a result of the proposed development, may also need to be considered under The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017. https://forestry.gov.scot/support-regulations/environmental-impact-assessment and should follow the process for preparing a woodland creation proposal, as set out in our guidance booklet: Woodland Creation Application Guidance. https://forestry.gov.scot/support-regulations/woodland-creation

Please don't hesitate to contact me if you have any questions regarding Scottish Forestry's response.

Yours sincerely

Martin MacKinnon

Senior Operations Manager
Highland and Islands Conservancy

Scottish Water

Monday, 23 October 2023

Marine Licensing
375 Victoria Road

Aberdeen

Development Operations
The Bridge
Buchanan Gate Business Park
Cumbernauld Road
Stepps
Glasgow
G33 6FB

Development Operations
Freephone Number - 0800 3890379
E-Mail - DevelopmentOperations@scottishwater.co.uk
www.scottishwater.co.uk

Follow Us

Dear Customer,

Spiorad na Mara Offshore Windfarm, Isle of Lewis, HS2 0PZ
Planning Ref: SCOP-0032
Our Ref: DSCAS-0096821-MY6
Proposal: Scoping - Spiorad na Mara Limited - Spiorad na Mara Offshore Windfarm

Please quote our reference in all future correspondence

Audit of Proposal

Scottish Water has no objection to this planning application; however, the applicant should be aware that this does not confirm that the proposed development can currently be serviced. Please read the following carefully as there may be further action required. Scottish Water would advise the following:

Drinking Water Protected Areas

A review of our records indicates that there are no Scottish Water drinking water catchments or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area that may be affected by the proposed activity.

Surface Water

For reasons of sustainability and to protect our customers from potential future sewer flooding, Scottish Water will not accept any surface water connections into our combined sewer system.

There may be limited exceptional circumstances where we would allow such a connection for brownfield sites only, however this will require significant justification from the customer taking account of various factors including legal, physical, and technical challenges.

In order to avoid costs and delays where a surface water discharge to our combined sewer system is anticipated, the developer should contact Scottish Water at the earliest opportunity with strong evidence to support the intended drainage plan prior to making a connection request. We will assess this evidence in a robust manner and provide a decision that reflects the best option from environmental and customer perspectives.

General notes:

- Scottish Water asset plans can be obtained from our appointed asset plan providers:
    - Site Investigation Services (UK) Ltd
    - Tel: 0333 123 1223
    - Email: sw@sisplan.co.uk
    - www.sisplan.co.uk

I trust the above is acceptable however if you require any further information regarding this matter please contact me on **0800 389 0379** or via the e-mail address below or at planningconsultations@scottishwater.co.uk.

Yours sincerely,

Ruth Kerr.
Development Services Analyst
PlanningConsultations@scottishwater.co.uk

/

Scottish Water Disclaimer:

"It is important to note that the information on any such plan provided on Scottish Water's infrastructure, is for indicative purposes only and its accuracy cannot be relied upon. When the exact location and the nature of the infrastructure on the plan is a material requirement then you should undertake an appropriate site investigation to confirm its actual position in the ground and to determine if it is suitable for its intended purpose. By using the plan you agree that Scottish Water will not be liable for any loss, damage or costs caused by relying upon it or from carrying out any such site investigation."

sportscotland

From:	Kerry Gibson
To:	MD Marine Renewables
Subject:	SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis
Date:	17 November 2023 14:36:19

Good afternoon,

Nil return response.

Thanks,
Kerry

Kerry Gibson | Planner | **sport**scotland
Doges | Templeton on the Green | 62 Templeton Street | Glasgow | G40 1DA

| m: [redacted]
w: www.sportscotland.org.uk

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The Crofting Commission

From:	NoReply
To:	MD Marine Renewables
Subject:	Crofting Commission response: FW: SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis - Consultation on Request for Scoping Opinion - Response required by 18 December 2023
Date:	14 November 2023 14:41:16
Importance:	Low

Thank you for your e-mail and an invitation to comment upon a planning application. The Crofting Commission regrets that it is unable to respond individually to such invitations.

Our general position in relation to planning applications concerning croft land is that:

- The siting of any proposed development should not restrict the continuing cultivation of a croft
- The siting of any proposed development should not restrict proper access to all other areas of a croft
- The siting of any proposed development avoids using the better quality land on a croft
- Consideration be given to the number of existing developments relating to a croft to ensure that the croft should retain its identity as a crofting unit

Generally, the Commission is supportive of developments on croft land where there is an operational need that will be beneficial to the croft. For example, the Commission would generally be supportive of an application for a dwelling house on a croft where the applicant is a croft tenant or an owner-occupier crofter who personally wishes to reside on and cultivate the croft.

The Royal Yachting Association

RYA SCOTLAND

Caledonia House
1 Redheughs Rigg
South Gyle
Edinburgh, EH12 9DQ

Tel: 0131 317 7388
www.ryascotland.org.uk

30th October 2023

Case officer
Marine Directorate – Licensing Operations Team
Scottish Government
Marine Laboratory,
375 Victoria Road,
Aberdeen,
AB11 9DB
MD.MarineRenewables@gov.scot

Dear Kate,

SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis

I have read the relevant parts of the scoping report on behalf of RYA Scotland and have consulted colleagues who are familiar with these waters as well as my colleague in the Cruising Association. I note that recreational sailing is covered in two chapters of the report.

Shipping and Navigation
I welcome the developers' commitment to consult with stakeholders including RYA Scotland. We would wish to take part in the Navigational Risk Assessment.

1. *Do you agree that the Shipping and Navigation Study Area, data sources identified (Table 6.10-1) and the proposed site specific vessel traffic surveys are sufficient to characterise the Shipping and Navigation baseline for the EIA (and therefore that no further baseline data collection is merited)?* It is unclear why the UK Coastal Atlas of Recreational Boating, published by the RYA and the *Outer Hebrides* volume of the *Clyde Cruising Club Sailing Directions and Anchorages* (published in 2017 with electronic updates to April 2023) mentioned elsewhere in the report have been omitted from Table 6.10-1. Relatively few recreational vessels currently pass up the west coast of Lewis to round the Butt of Lewis as there is no safe shelter between Loch Ròg (Loch Roag) and Rubha Robhanais (the Butt of Lewis). Some may be circumnavigating the UK and Ireland and others may be heading from

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www.ryascotland.org.uk

St Kilda to Stornoway. The round Britain and Ireland yacht race is held every four years, the last being in 2022, with the route going through, or close to, the proposed site. Thus, as mentioned in the scoping report, some recreational vessels do pass through the site area. Skippers of vessels in these challenging waters are likely to be experienced and self sufficient. It is thought that fewer than half the recreational craft in these waters transmit an AIS signal. RYA Scotland is currently trying to obtain a better estimate of this proportion. I see no need to collect additional data.

2. *Are there any additional or specific organisations which should be included in the consultation outreach?* I am unaware of any.

3. *Have all the potential likely significant effects resulting from the Project been identified for Shipping and Navigation users?* I agree with all the effects listed in 6.10-3. Another effect that should be added is the danger of losing navigational aids such as lights and AIS signals due to storm damage, and the difficulty of repairing them timeously.

4. *Is the EIAR methodology for Shipping and Navigation appropriate for assessing the potential likely significant effects resulting for the Project?* Yes.

We agree with the embedded mitigation given in Table 6.10-4. Note that there can be a significant time lag between the UKHO being informed of the location of a development and it being plotted on the electronic charts now used by most recreational boaters. We agree with the, by now standard, safety zones of 500 m round turbines during construction and major maintenance and 50 m at other times.

Tourism, Recreation, Infrastructure and Other Sea Users

1. *Do you agree that the data sources identified are sufficient to inform the Offshore Infrastructure, Other Sea Users, Tourism and Recreation baseline for the EIA (and therefore that no further baseline data collection is merited)?* The Strava Global Heatmap plots the position of Strava enabled devices that might be carried by a range of water-sports participants.

RYA SCOTLAND

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1 Redheughs Rigg
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2. *Have all Offshore Infrastructure, Other Sea Users, Tourism and Recreation receptors and potential likely significant effects that could result from the Project been identified?* The list seems complete but I am unable to answer on behalf of other sectors.

3. *Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Offshore Infrastructure, Other Sea Users, Tourism and Recreation?* Yes. The project will provide a welcome range of job opportunities, many for skilled engineers and seafarers. However, the SEA should perhaps consider the implications of this for the provision of essential services in the Western Isles such as marine maintenance and repair, harbour management and ferry crewing.

4. *Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Offshore Infrastructure, Other Sea Users, Tourism and Recreation receptors.* Issuing Notices to Mariners by itself is not enough. They must be posted at marinas and harbours within a few days' sail, including at the Orkney marinas. The position of the turbines should be communicated to the Clyde Cruising Club (sailingdirections@clyde.org) once they have been installed so that an update can be issued for the relevant volume of their sailing directions. It would be helpful if the wording of the embedded mitigations was consistent between Tables 6.10-4 and 6.12-2. Adhering to the ColRegs and SOLAS is a legal requirement not a mitigation that a developer can choose to adopt or not.

Yours sincerely,

[redacted]

Dr G. Russell FCIEEM(retd) FRMetS
Planning and Environment Officer, RYA Scotland

Transport Scotland

Development Management and Strategic Road Safety
Roads Directorate

George House 36 North Hanover St Glasgow G1 2AD
Direct Line: 0141 272 7379, Fax: 0141 272 7350
gerard.mcphillips@transport.gov.scot

TRANSPORT SCOTLAND
CÒMHDHAIL ALBA

Kate Taylor
Scottish Government
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

MD.MarineRenewables@gov.scot

Your ref:
SCOP-0032

Our ref:
GB01T19K05

Date:
08/11/2023

Dear Sirs,

REGULATION 14 OF THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017

REGULATION 12 OF THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017

SPIORAD NA MARA OFFSHORE WINDFARM – ISLE OF LEWIS

With reference to your recent correspondence on the above development, we acknowledge receipt of the Scoping Report prepared by ERM 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

We understand that the proposed development comprises up to 66 offshore wind turbine generators (WTGs) with a tip height of up to 380m located in an array area approximately 5km off the west coast of the Isle of Lewis. The project will comprise both offshore and onshore infrastructure, with a number of landfall sites currently being considered, all of which are north/ northwest of Stornoway.

Assessment of Environmental Impacts

There are no trunk roads on the Isle of Lewis, with the nearest strategic road to the site being the A87(T) at Uig on Skye, some 70km south of Stornoway. Given the distance to the trunk road network, Transport Scotland is satisfied that there is unlikely to be a significant impact or material change to the trunk road network arising from the construction or the operation of the development. We can confirm, therefore, that no assessment of potential environmental effects associated with increased traffic is required.

Abnormal Loads Assessment

We note that the SR states that an Abnormal Load Route Assessment (ALRA) will be undertaken to confirm that the proposed designated haulage route can accommodate Abnormal Indivisible Loads (AILs). We would state that in the event these are to be transported on the Scottish Mainland using the trunk road network, Transport Scotland will require to be satisfied that the size of turbines proposed can negotiate the selected route and that their transportation will not have any detrimental effect on structures within the trunk road route path.

I trust that the above is satisfactory but should you wish to discuss in greater detail, please do not hesitate to contact myself at the number above or alternatively, Alan DeVenny at SYSTRA's Glasgow Office who can be reached on 0141 343 9636.

Yours faithfully

Gerard McPhillips

Transport Scotland
Roads Directorate

cc Alan DeVenny – SYSTRA Ltd.

Western Isles District Salmon Fisheries Board

From:	clerk@widsfb.org
To:	MD Marine Renewables
Subject:	SCOP-0032 - Spiorad na Mara Offshore Windfarm - Isle of Lewis - Consultation on Request for Scoping Opinion
Date:	30 October 2023 09:33:03

Good Morning,

Please see below the response from the Western Isles District Salmon Fisheries Board to this consultation:

Many thanks for the opportunity to provide comments on the scoping opinion for Spiorad na Mara windfarm. WIDSFB are providing comments to the questions for consultees relating to Fish and Shellfish ecology in the scoping report.

1. Do you agree that the data sources identified are sufficient to inform the Fish and Shellfish Ecology baseline for the EIA (including potential observations from other relevant surveys)? Please see our response to question 3 below.
2. Have all Fish and Shellfish Ecology receptors and potential likely significant effects that could result from the Project been identified?
   No, there are other potential significant effects such as infrastructure being adopted by predators to increase their exploitation of migratory fish. Another example is permanent disturbance to migration pathways for migratory fish.
3. Do you agree with the proposed approach to assessment (scoped in or out) for each of the potential likely significant effects in the EIA Scoping Assessment table for Fish and Shellfish Ecology? No, desk based assessments are not appropriate for some of the potential likely significant effects i.e. disturbance to migration pathways. Telemetry studies are required to provide a level of detail such as the initial work undertaken by Dr Adam Piper as part of the Loch Roag Sea Trout Study. Earlier this year ZSL helped to deploy 6 receivers along the boundary of Spiorad na Mara, data from these receivers should be included. Increasing the scale of studies like the Loch Roag Sea Trout study could provide fine detail on migratory fish movements and the most appropriate siting for the turbines. WIDSFB would like to emphasise the importance of this point as the scoping reports states “The Array Area is approximately 161 km2 in size, having been reduced in size compared to the N4 Plan Option available through the ScotWind Leasing process, in order to avoid areas of highest navigational risk and salmon migration routes.” without providing evidence of what it thinks the salmon migration routes are.
4. Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential likely significant effects of the Project on Fish and Shellfish Ecology receptors? The report does not clearly explain what mitigation measures are being adopted for wild fish receptors (Atlantic Salmon). Therefore, WIDSFB would like to ask what mitigation is being proposed to ensure smolts emanating from the Langavat SAC will not be harmed or impeded in their migration. What consideration in terms of best practice has been given to the timings and duration of the works in relation to the sensitive period when wild salmon smolts will be migrating out of Loch Roag.

Kind Regards, Jason

Jason Laing
Clerk to the WIDSFB
[redacted]

Whale and Dolphin Conservation and Hebridean Whale and Dolphin Trust

Licensing Operations Team,

Marine Directorate, Scottish Government

Marine Laboratory, Aberdeen, AB11 9DB

18th December 2023.

Dear Sir/Madam,

Re SCOP-0032 – Spiorad na Mara Offshore Windfarm – Isle of Lewis

This response has been compiled by Whale and Dolphin Conservation (WDC) and the Hebridean Whale and Dolphin Trust (HWDT).

We appreciate the opportunity to comment on the Spiorad na Mara Offshore Windfarm Scoping Report. The following comments focus on the offshore infrastructure and cetaceans, i.e. information presented within section 6.6 (Marine Mammals and Other Megafauna); We acknowledge that the development will have wider impacts on the marine environment, and onshore infrastructure will have significant environmental impacts; these are not considered within the scope of this response.

WDC and HWDT support the responsible development of renewable energy, recognising that climate change is one of the biggest threats facing both people and nature, and that there is an urgent need to mitigate the climate crisis. However, it is essential to tackle the climate and biodiversity crises jointly and ensure that renewable energy developments are not harming the marine environment and the wildlife it supports. Developments should have minimal impact on sensitive habitats and species, including cetaceans (whales and dolphins), which are classified as European Protected Species (EPS). This is particularly important given the vital role marine ecosystems and cetaceans play as 'climate allies' through nutrient cycling and carbon sequestration, and the UK's national and international obligations to reverse biodiversity decline and support the recovery of protected species.

As the development of offshore renewable energy proceeds at pace around the UK, we are concerned that the impacts on cetaceans, their prey and the critical habitats upon which they depend, are not being adequately prioritised. In the North Sea, within and adjacent to designated SACs/MPAs for harbour porpoises, some of the largest offshore windfarms in the world are being developed, with little consideration on the impacts both individually and cumulatively, on these MPAs and the species for which they are designated, despite baseline data demonstrating the importance of these areas for the harbour porpoise, a sensitive and protected species. Of particular concern is the use of pile driving during the construction of offshore windfarms, as the noise can adversely affect the behaviour of whales, dolphins and porpoises over significant distances. Additional sources of disturbance and potential harm to cetaceans will result from construction, support vessels, benthic / prey disturbance, pollution and the need to manage unexploded ordinance clearance.

WDC and HWDT consider that new renewable energy programmes should not proceed within, or in areas adjacent to, critical cetacean habitats and MPAs designated for cetaceans to avoid injury to and displacement of whales, dolphins and porpoises from important feeding and breeding areas. Outside of MPAs, it is vital that impacts are fully mitigated. For pile driving (which is one of the key impacts of concern for cetaceans in terms of potential for harm), the technology is available to mitigate noise

levels, and should be employed wherever pile driving takes place in UK waters (see for example, Weilgart 2023).

Both WDC and HWDT have a long-standing involvement and interest in protecting the cetaceans and marine life near the Isle of Lewis as part of their conservation work in Scotland over the past 30 years. Since 2010, WDC scientists have been undertaking studies of Risso's dolphins around Lewis, (Weir *et al.,* 2019; Hodgins *et al.,* 2014). WDC's Shorewatch project has also been collecting systematic effort-based sightings data from coastal sites around the west coast and Hebrides, with a particular focus from Tiumpan Head (north-east Lewis). HWDT have also conducted dedicated surveys in the waters around the Outer Hebrides for the past 20 years (Silurian dataset; Hebridean Whale and Dolphin Trust, 2018) and collated opportunistic and effort-based data from the communities across the west coast of Scotland for the past 30 years (Whale Track dataset; Hebridean Whale and Dolphin Trust, 2023). This combined research has identified the area as providing important habitat for many other species of cetacean, including harbour porpoise, minke whales, humpback whales and common dolphins. This evidence informed the site selection and designation in 2020, of the north-east Lewis MPA for Risso's dolphins and sand-eels, demonstrating the importance of the sites for the breeding, feeding and social lives of Risso's dolphins and other marine species. We continue to study and advocate for long-term monitoring and effective management of this area and for better protection of cetaceans and their habitats elsewhere around the UK.

In contrast to the information presented in Section 6.6 of the Scoping report (Marine mammals and other megafauna), and despite the lack of dedicated systematic survey effort, there are strong indications that the region (Outer Hebrides) is an area of importance for marine mammals and marine life. The long-term ongoing studies in the region undertaken by Hebridean Whale and Dolphin Trust (HWDT, 2018) highlight the significance of the waters around Lewis and the Outer Hebrides to cetaceans and other protected species (including basking sharks and seals). WDC Shorewatch and HWDT Whale Track data documents regular sightings of more than 10 species of whales and dolphins as well as grey and common seals, basking shark, occasional sunfish and leatherback turtles, and, more recently, Atlantic bluefin tuna (WDC Shorewatch Dataset, whales.org/Shorewatch / NBN Atlas, nbnatlas.org; Hebridean Whale and Dolphin Trust, 2023). Whaling logbooks reveal the historical significance of Scottish shelf waters (Ryan *et al.,* 2022) highlighting that waters to the west of Scotland were key habitat for blue, fin, humpback, North Atlantic right, sei and sperm whales. Some of these endangered species are known to migrate through UK waters between high latitude feeding areas and lower latitude breeding grounds and opportunistic observations indicate numbers for some, such as humpback whales, are increasing in the region (Leaper *et al.,* 2022).

The Scoping report also notes that the presence of a variety of cetaceans is only seasonal and largely restricted to summer months (pg. 203). However, WDC's land-based sightings data show year-round presence of at least nine species of cetacean (harbour porpoise, minke whale, common dolphin, Risso's dolphin, white-beaked dolphin, humpback whale, killer whale, bottlenose dolphin, and white-sided dolphin), as well as regular sightings of other cetaceans (fin whale, sei whale, beaked whales, long-finned pilot whales), seals and other megafauna throughout the year (WDC Shorewatch Dataset, whales.org/Shorewatch / NBN Atlas, nbnatlas.org).

It is therefore unclear why the scoping document notes that the area is not considered to be a hotspot of cetacean distribution (page 210). Additionally, with the western boundary of the existing north-east

Lewis MPA approximately 10 miles to the north of the proposed development, it must be considered that these waters also provide important connectivity corridors for the species above that are regularly using this critical habitat, as well as other designated protected areas.

In response to the Scoping questions outlined for consultees in relation to Marine Mammals and Other Megafauna:

1. *Do you agree that the data sources identified are sufficient to inform the Marine Mammal and Other Megafauna baseline for the EIA (and therefore that no further baseline data collection is merited)?*

WDC and HWDT do not agree. As shown above, existing data suggests that this area is important, year-round, for numerous species of whales and dolphins (see also Hague et al*.,* 2020). However, thorough and systematic baseline data for cetaceans for the area is severely lacking:

- The Digital Aerial Surveys (DAS) being undertaken within the development area and 10km buffer zone do not seem adequate given the clear significance of these waters to cetaceans and the potential cumulative impacts of several offshore windfarms and planned developments in this region and more widely off NW Scotland. Visual survey techniques (including DAS) are not adequate for detection of deep diving species such as beaked and sperm whales (which spend limited time at the surface making them hard to detect). Detectability through DAS varies by species, so reliable detections of all species might be challenging especially if combining surveys for cetaceans with birds. The DAS have also taken place over a relatively small area, over a short period of time (12-24 months) and only during daylight hours and are therefore unlikely to detect any diurnal or seasonal changes in the densities and distribution of cetaceans. In addition, for areas like this where many species are present and with uncertainty around the effects of weather, sea state and turbidity on accuracy of the measurements and impacts on species identification, DAS is not the most robust survey technique for cetaceans. Thus, undertaking dedicated systematic vessel-based surveys for cetaceans, utilising a combination of passive acoustic and visual surveys across a much wider area and for a more prolonged period of time, would provide more robust baseline data.

- Waters deeper than 200m, e.g. to the west of northern Scotland are considered important for a variety of cetacean species including some which do not usually occur elsewhere in UK waters, such as beaked whales and sperm whales. These species are difficult to detect by visual methods and therefore their presence is less well documented. Due to limited weather windows to survey these waters, there is also limited dedicated visual survey data for this area (Hebridean Whale and Dolphin Trust, 2018), however acoustic data from the SAMOSAS array is available and has demonstrated this is important habitat for a range of cetaceans (Van Geel *et al.,* 2022b)

- It is noted that the latest SCANS IV data has not been included in the key datasets and this should be used in the EIA.

- Some of the data evidenced in the Scoping report is dated (i.e. Royal Haskoning, 2012), or of questionable quality given the scope of the project, as it was predominantly focused on seabirds rather than cetaceans and was commissioned by developers.

- There is no reference to the strandings records which will help to inform potential habitat use of various species and also diversity of species that are hard to detect from visual surveys alone i.e. beaked whales (Scottish Marine Animal Stranding Scheme, 2023). Of note is the recent mass stranding incident of pilot whales on the northeast coast of Lewis in July 2023. This significant mass-stranding is not mentioned within the scoping report, neither are the ongoing investigations to establish whether there could be a causal link to anthropogenic activities which were taking place (including geotechnical surveys) in the area during the summer.
- We would also like to highlight the limitations of interpreting datasets to assess cetacean presence in the array area which are based on low dedicated survey effort (Hebridean Whale and Dolphin Trust, 2018) or low observer effort (Hebridean Whale and Dolphin Trust, 2023). Long-term, dedicated studies by WDC and HWDT have demonstrated the importance of the area for marine mammals as well as the year-round presence for a number of species, and this information provided the evidence to designate SACs and MPAs for minke whales, basking sharks, harbour porpoise and Risso's dolphins, all of which overlap with the area of interest. These are all highly mobile species, and likely to move throughout the area. Therefore, where survey data are limited or restricted, a precautionary approach should be taken.

Given that the shelf and shelf edge waters to the northwest of the UK are known to be of importance to cetaceans, the lack of previous development in the area, the proximity of the proposed developed site to several MPAs designated for marine mammals, and the potential cumulative and transboundary impacts of the various offshore developments planned (or underway) in the region, further dedicated baseline data collection should be required and reference made to these issues within the scoping report.

We would also like to raise that several of the points we have made in this section, particularly around interpreting existing datasets for the development area which are based on limited effort and highlighting additional useful datasets that should be considered (i.e. WDC data and SAMOSAS array data), were previously raised by HWDT during a stakeholder meeting we attended.

2. *Have all Marine Mammal and Other Megafauna receptors and potential likely significant effects that could result from the Project been identified?*

The Scoping document does not comprehensively review the diversity of species in these waters or year-round presence of cetaceans known to frequent and transit through the area; which also includes several species of beaked whale, sperm whales, long-finned pilot whales, endangered fin whales and humpback whales.

Similarly, there is no comprehensive overview of the range of potential impacts of the proposed development on marine mammals and other megafauna, the cumulative impacts and the effects on prey species (invertebrates and fish) as well as benthic habitats from the development itself, associated cable laying, exploration activities (including geotechnical surveys, clearance of any unexploded ordnance) presence of support vessels and other associated impacts.

There are several European protected sites (SACs) in the vicinity of the proposed development area which have marine mammals as designated features (see map, page 205). This is important to note and we would urge that there is a need for a detailed Habitat Regulation Assessment (Appropriate

Assessment) in relation to these protected areas due to their close proximity and the potential for propagation of impacts.

Furthermore, there is emerging evidence that this habitat supports unique local cetacean populations, although more evidence is required, for example a local bottlenose dolphin population that are known to hybridise with Risso's dolphin (Hodgins *et al.*, 2014; Hodgins *et al.,* In Prep.; Van Geel *et al.*, 2022a), and there is growing evidence for the need to better define the separate management units for UK Risso's dolphins, as exists for other species (Weir *et al.,* 2019, WDC Unpublished data).

3. *Do you agree with the proposed approach to assessment and modelling (scoped in or out) for each of the impacts in the EIA Scoping Assessment table for Marine Mammals and Other Megafauna?*

Cetaceans are particularly sensitive to intense underwater noise and this should be a primary consideration in relation to the planned development and the potential impacts and mitigation measures. Certain species of cetacean, such as harbour porpoise, Risso's dolphin and deep diving species of beaked whales, sperm whales and long-finned pilot whales, which frequent these waters are known to be particularly vulnerable to disturbance and injury from underwater noise, including pile driving, seismic survey and miliary sonar. Details are lacking within the scoping report on embedded mitigation measures to reduce the impacts. In addition, a comprehensive dedicated plan for monitoring for sensitive receptor species including cetaceans should be in place, prior to, during and for several years post construction, in order to guide and inform adaptive mitigation and management plans for the development and operation of the site.

It is unclear why collisions with vessels and pollution are scoped out of the EIA scoping assessment table, given that cetaceans are known to be vulnerable to collisions, and vessel traffic will increase in the area in association with the development and operation of the site. There is also increasing evidence of pollution (including chemical emissions from corrosion protection systems) by metals, organic substances (Kirchgeorg *et al*. 2018) and microplastics from operational windfarms (Solberg *et al.* 2021).

4. *Do you agree that the embedded mitigation measures described provide a suitable means for managing and mitigating the relevant potential effects of the Project on Marine Mammals and Other Megafauna receptors*

WDC and HWDT are extremely concerned about the increasing body of evidence of the negative effects of loud sound sources (including pile driving) on marine life and particularly whales and dolphins. Negative effects may include direct injury for individual animals close to the sources as well as stress and disturbance/ displacement for animals over a much wider area.

We consider that the implementation of strict noise level limits would be more effective than current mitigation measures utilised in UK waters at reducing the risk to sensitive species such as cetaceans from piling noise. In the UK there are currently no noise limits during piling activities. Following the lead set by Germany, a growing number of countries across Europe, Asia and North America are imposing underwater piling noise restrictions during OWF construction to meet noise threshold levels – including noise mitigation systems and noise abatement systems (bubble curtains, hydro-sound dampers and

resonators). We advocate for the same approach in UK waters to reduce known impacts. Similarly, low order deflagration should be required for UXO disposal.

The stated aim of the JNCC noise mitigation guidelines is to reduce 'the risk of injury to marine mammals (seals, whales and dolphins) to negligible levels' but JNCC also claims that the 'mitigation measures discussed can also potentially reduce the risk of disturbance' (JNCC, 2017). We support measures that have been shown to be effective in reducing injury but also note that it is critical to reduce the impacts of loud noise sources (including pile driving and seismic surveys) that affect marine life over very large scales through disturbance, stress and the masking of sounds that are important for feeding, communication, navigation and avoiding predators.

Unfortunately, despite claims that 'it is considered that compliance with these guidelines constitutes best practice and will, in most cases, reduce the risk of injury to EPS to negligible levels' (JNCC, 2017), there is no demonstrated evidence that the JNCC guidelines substantially reduce risk.

The current JNCC guidelines have been evaluated within several studies published in the primary literature (Weir and Dolman, 2007; Parsons *et al.,* 2009, Leaper *et al.,* 2015; Wright and Cosentino, 2015). These evaluations note that the only real-time mitigation measure required by the guidelines is the soft-start and that the effectiveness of the soft-start has not been demonstrated. Soft start and ramp-up are mentioned in the Scoping document to control for noise emissions (section 6.2). The expected risk reduction of any mitigation measures proposed for offshore developments should be quantified as part of the planning and consenting process.

We are pleased to be able to offer our input to this consultation and reiterate our serious concerns regarding the need for the scoping report to better define the sensitivity of this area, the lack of comprehensive review of the diversity and year-round presence of cetaceans and other mega fauna, and the requirement for full consideration of the potential impacts on cetaceans and other vulnerable species and habitats, including European protected sites, and how best to minimise these.

Yours sincerely,

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WDC WHALE AND DOLPHIN CONSERVATION

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