ABL Group

From:	
To:	MD Marine Renewables
Cc:	
Subject:	Representation - Offshore Application - West of Orkney Windfarm by OWC
Date:	15 November 2023 15:27:00
Attachments:	0.png 1.png 2.png OWC Letter WoO.pdf

Dear Marine Scotland Licensing Team, The Scottish Government,

We would like to make a representation of support for the Marine Licence application made by Offshore Wind Power Limited (OWPL), a joint venture between Corio Generation, TotalEnergies, and RIDG for the proposed development of The West of Orkney Windfarm. I attach our representation for your review and inclusion into your decision-making process.

If you have any questions, I would be delighted to be able to respond. I am based in Dundee and mainly work out of the Glasgow office.

Best Regards

Global Managing Director Renewables

ABL Group
1st Floor, The Northern & Shell Building, 10 Lower Thames Street, London, EC3R 6EN, United Kingdom
T: | M:
www.abl-group.com

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Registered as Offshore Wind Consultants Ltd, No. 07861245 in England, at 1st Floor, The Northern & Shell Building, 10 Lower Thames Street, London, England, EC3R 6EN

Spaces1, West Regent Street, Glasgow, Scotland, G2 1RW

Doc No. **OWC-L-WoWWF**

15 November 2023

Attn: Marine Scotland Licensing Operations Team

The Scottish Government

Representation - Offshore Application - West of Orkney Windfarm by OWC

We would like to make a representation of support for the Marine Licence application made by Offshore Wind Power Limited (OWPL), a joint venture between Corio Generation, TotalEnergies, and RIDG for the proposed development of The West of Orkney Windfarm.

OWPL has submitted an application for consent under Section 36 of the Electricity Act 1989; and Marine Licences under Section 20 of the Marine (Scotland) Act 2010 and Section 65 of the Marine and Coastal Access Act 2009.

This letter is our strong representation for the Offshore Application.

OWC are a global renewable energy consultancy of 300 staff with an office in Glasgow, we are part of the ABL Group who have 4 offices in Scotland, supporting the indigenous renewables and offshore energy sector: Glasgow (offshore and onshore wind advisory), Edinburgh (wave energy advisory), Dundee (offshore vessel design), and Aberdeen (O&G and offshore wind marine consultancy).

We strongly believe The West of Orkney Windfarm would be a key infrastructure project for Scotland, the value and benefits of the project to Scotland are:

Economic – the windfarm will result in a substantial investment into the north of Scotland, and has the potential to have a transformational impact on local communities for the long term, in part due to the creation of high skilled, well paid jobs over its lifetime. Notably, the project has committed to a pre-FID investment programme of £105m, directly to support the local supply chain and has partnered with the European Marine Energy Centre in Orkney to develop Research and Innovation capability in the North of Scotland.

Economic – as a leading ScotWind project, the West of Orkney Windfarm will be a key enabler of significant private and public sector investment into infrastructure in the North of Scotland such as new and improved fabrication facilities, ports, transmission infrastructure and additional offtake solutions, which will create wider benefits for the region and de-risk the delivery of future offshore wind projects.

Environmental – if granted, the windfarm will make a significant contribution towards tackling climate change, through the production of over 2GW of green, clean renewable energy by 2030.

Good location – the project is sighted in one of the best locations for a highly competitive offshore wind project in Scotland due to the combination of high, consistent wind speeds and water depths that can vitally, accommodate fixed foundations.

Energy benefits – the windfarm has the potential to meet the average annual electricity needs of over 2 million households each year, contributing significantly to the Scottish and UK Governments net-zero targets and constituting an excellent source of cheap, clean and secure electricity.

Apprenticeships - the development is already supporting UHI STEM, as lead partner in a £900k programme of activity over three years, creating the best opportunity for local young people to get involved with the project and the wider energy transition in Scotland.

OWC and the wider ABL Group are delighted to state that OWPL's West of Orkney Windfarm will make a significant impact to our communities, our economy, and towards achieving netzero.

Yours Sincerely,

Director (OWC) / Group Managing Director Renewables (ABL Group)

Caithness Chamber of Commerce

Marc MacFarlane

From: Laura O'Kane <laura@caithnesschamber.com>
Sent: 17 November 2023 16:02
To: MD Marine Renewables
Cc: Trudy Morris
Subject: Representation for the economic and environmental benefits of the West of Orkney Windfarm.
Attachments: CCoC - West of Orkney Windfarm offshore application representation 16.11.23.pdf

Dear Sir/Madam,

Please see attached representation for the economic and environmental benefits of the West of Orkney Windfarm on behalf of the Caithness Chamber of Commerce.

Kind Regards
Laura

Laura O'Kane *Operations & Communications Manager*
Caithness Chamber of Commerce
E: laura@caithnesschamber.com

Naver Business Centre, Naver House, Naver Road, Thurso, Caithness KW14 7QA
T: 01847 890076 E: info@caithnesschamber.com; W: www.caithnesschamber.com;

Caithness Chamber gratefully acknowledges the support of its Premier Partners

Nuclear Decommissioning Authority/NRS Dounreay | West of Orkney Windfarm | Highland Wind Limited | Jacobs Clean Energy Ltd | Cavendish Nuclear | Beatrice Offshore Windfarm Ltd | RES | AtkinsRéalis |SSE Renewables|Subsea 7

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Caithness Chamber of Commerce is a company limited by guarantee; registered in Scotland no: 350926; registered office: Naver Business Centre, Naver House, Naver Road, Thurso, Caithness KW14 7QA
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16 November 2023

The Scottish Government,
Marine Scotland Licensing Operations Team,
Marine Laboratory,
375 Victoria Road,
Aberdeen,
AB11 9DB

ms.marinerenewables@gov.scot

CAITHNESS CHAMBER of COMMERCE

STRONGER TOGETHER

Representation for the economic and environmental benefits of the West of Orkney Windfarm.

Dear Sir/Madam,

Caithness Chamber of Commerce is the lead organisation representing business within the North Highland region. It actively works to support and promote businesses from all sectors and is working alongside key agencies within the area on regeneration plans to ensure that the North Highlands has a sustainable and vibrant future, spearheading efforts to offset the rundown of one of the region's anchor employers, the Dounreay nuclear site.

I am writing a letter of representation for the economic and environmental benefits of the West of Orkney Windfarm development.

The North Highlands are fundamental to Scotland's transition to renewable power, encompassing a highly skilled workforce, abundant natural capital, and a reputation for excellence. We have a sophisticated supply chain in place supporting the highly complex decommissioning process at Dounreay and world-class expertise in nuclear, renewables, oil and gas, engineering and energy storage. These factors, alongside the West of Orkney Windfarm's site location, which has a combination of high, consistent wind speeds and water depths that can accommodate fixed foundations, make it an ideally placed development for Scotland.

The West of Orkney Windfarm is Diamond Premier partner of the Caithness Chamber, demonstrating its commitment to helping nurture a vibrant, sustainable, and diverse economy in the region. The project team has demonstrated a strong commitment to early supply chain engagement and investment to enhance key supplier capability and competitiveness in the region.

This development will offer significant economic benefits to the North Highlands and will enable substantial private and public sector investment into infrastructure such as local ports, transmission infrastructure and skills development. Over the lifetime of the development, it has the potential to have a transformative impact on local communities.

Alongside developments for the operations and maintenance base at Scrabster, which is expected to create 140 full-time permanent jobs, the development is expected to offer significant opportunities to local companies during both the commissioning and service of the onshore support network.

The West of Orkney Windfarm has demonstrated a significant commitment to education and skills development across the North Highlands. A £900,000 funding boost from the offshore wind industry, led by the West of Orkney Windfarm will help deliver a STEM outreach programme to early years settings and primary schools across the Highland Council area, supporting the employment of 8 part-time and 2 full-time STEM coordinators. Education and skills development of our future workforce is imperative to our nation's future and this initiative will be pivotal in creating the best opportunity for local young people to get involved with the development and explore wider energy transition in Scotland. Creating opportunities for a vibrant and prosperous future for our younger generations.

There is no doubt, that Scotland needs to accelerate the transition away from fossil fuels and replace them with clean energy sources. However, existing energy transmission infrastructure across Scotland is strained, hindering the distribution of green energy to demand centres, curtailing the potential of local renewable resources and exacerbating the nation's reliance on fossil fuels. Harnessing our home-grown natural resources is at the heart of strengthening Scotland’s energy security and safeguarding a clean environment. The development of transmission infrastructure and additional offtake solutions from the development will help and de-risk future offshore wind projects. The development itself has huge significant national importance as the nation drives towards net zero. The West of Orkney Windfarm development has the potential to meet the electricity needs of 2 million households each year, contributing significantly to Scotland's net-zero targets, through the production of over 2GW of green, clean renewable energy by 2030 and bolstering Scotland’s energy security.

In summary, Caithness Chamber of Commerce is in full support of the development of the West of Orkney Windfarm because it delivers benefits on so many levels - nationally, regionally, and locally. As such we hope that it will be successful in its planning application.

Yours faithfully,

[Redacted]

Trudy Morris
Chief Executive

Caithness Chamber of Commerce
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Caledonia Offshore Wind Farm Ltd

Marc MacFarlane

From: Aleks Schmidt-Sweetingham <aleks.schmidtsweetingham@oceanwinds.com>
Sent: 20 November 2023 15:41
To: MD Marine Renewables
Cc: Jane Renwick; Mark Baxter; Catarina Rei
Subject: RE: Public Notice - West of Orkney Windfarm Consultation
Attachments: UKCAL-CWF-CON-STK-LET-00003 Caledonia OWF Response to WoO s36 Application vSigned.pdf

Hi Brendan, MD-LOT,

Please find attached Caledonia Offshore Wind Farm consultation response relating to the West of Orkney Windfarm s.36 consent application.

If you have any questions relating to our representation then please let me know.

Kind regards,

Aleks

ALEKS SCHMIDT-SWEETINGHAM

OFFSHORE CONSENT MANAGER

aleks.schmidtsweetingham@oceanwinds.com
[Redacted]

Atria One - 144 Morrison Street - 5th Floor
EH3 8EX Edinburgh, Scotland, United Kingdom

OW OCEAN WINDS

Great Place To Work.

DocuSign Envelope ID: 127E485F-9D13-4F37-A40E-49AADA680D2E

20 November 2023 Ref: UKCAL-CWF-CON-STK-LET-00003

Marine Scotland

Licensing Operations Team

1A South Victoria Quay

Edinburgh

EH6 6QQ

By email: ms.marinerenewables@gov.scot

Offshore Wind Power Limited – Section 36 Application

Representation by Caledonia Offshore Wind Farm

Dear MD-LOT,

Thank you for the opportunity to comment on the Section 36 Application, submitted by Offshore Wind Power Limited (OWPL) for the West of Orkney Offshore Wind Farm. Caledonia Offshore Wind Farm (Caledonia OWF) wishes to provide the following comments.

Policy Framework

- The draft Energy Strategy and Just Transition Plan sets out the Scottish Government's vision for Scotland's energy system to 2045, with final strategy expected to be published in Summer 2024.
- As part of that Caledonia OWF supports an increased ambition for offshore wind deployment in Scotland by 2030, over and above the stated 11GW.
- Caledonia OWF also recommends setting a Scottish Government ambition for offshore wind deployment by 2045 to meet Scottish Government's net zero targets.
- The policy framework needs to be in place so that statutory stake-holders can make decisions in line with the stated strategy.
- A revision to Offshore Wind ambition that considers Scottish Off-shore Wind and significant contribution to the objectives of a Just Transition, the Climate Emergency and Energy Security is a require-ment to achieve those objectives.

Caledonia Offshore Wind Farm Ltd
5th Floor Atria One, 144 Morrison St.
EDINBURGH EH3 8EX

Registered Office c/o Shepherd and Wedderburn LLP, Octagon Point, 5 Cheapside, London EC2V 6AA United Kingdom
Company Number 13844888

DocuSign Envelope ID: 127E485F-9D13-4F37-A40E-49AADA680D2E

- Any increase should be considerate of the affects on our natural capital and opportunities that create a net positive outcome within the policy framework.

Contribution to 2030 targets

- Within OWPLs 'Derogation Case', Caledonia OWF disagrees with the statement that ''*it is unlikely that other (ScotWind) projects would contribute to 2030 targets, with most projects likely to come online in the 2030s*'.
- National Grid ESO 'Pathway to 2030 Holistic Network Design'[i] identifies a number of ScotWind projects that will provide low carbon electricity to the grid by 2030. Caledonia OWF is one of these projects.
- Given the experience of Ocean Winds, a developer, constructor and operator of offshore wind farm projects in Scotland, specifically the Moray Firth, we are confident Caledonia OWF can be delivered to these timescales and represents a credible alternative to support the need for climate change mitigation and security of energy supply.
- However, we wish to note that without policy and targets in place which match the ambition of ScotWind, there is a risk that statutory stakeholders will not be able to make decisions in line with priorities of tackling change and energy security. This will create a barrier to further development and delivery of Offshore Wind in Scotland.
- It is therefore imperative that Scottish Government revise their offshore wind targets for 2030 (and beyond) and deliver a robust Sectoral Marine Plan which reflects relevant updated project information, such as those entered into the planning system by ScotWind projects. This will enable the sector to thrive and secure a net-zero future for Scotland.

Yours Sincerely,

[Redacted]

Mark Baxter, Caledonia OWF Project Director.

[i] https://www.nationalgrideso.com/future-energy/pathway-2030-holistic-network-design

Caledonia Offshore Wind Farm Ltd
5th Floor Atria One, 144 Morrison St.
EDINBURGH EH3 8EX

Registered Office **c/o Shepherd and Wedderburn LLP, Octagon Point, 5 Cheapside, London EC2V 6AA United Kingdom**
Company Number 13844888

European Marine Energy Centre (EMEC) Ltd

From:	
To:	MD Marine Renewables
Cc:	
Subject:	Representation - West of Orkney Wind Offshore Application
Date:	13 November 2023 13:00:10
Attachments:	WOW Representation letter.pdf

Good afternoon

Please find attached a letter of representation from EMEC in respect of West of Orkney Wind Offshore Application.

Kind regards,

Office Manager
European Marine Energy Centre (EMEC) Ltd

T:
emec.org.uk • blog • linkedIn • twitter • youtube • facebook • privacy policy

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------Our Details------
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EMEC
THE EUROPEAN MARINE ENERGY CENTRE LTD

31 October 2023

The Scottish Government
Marine Scotland Licensing Operations Team
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

ms.marinerenewables@gov.scot

Dear Sir/Madam,

West of Orkney Wind Offshore Application – Representation from EMEC Ltd.

Established in 2003, the European Marine Energy Centre (EMEC) Ltd is a not-for-profit innovation catalyst pioneering the transition to a clean energy future.

EMEC is the world's first and leading facility for demonstrating and testing wave and tidal energy converters – technologies that generate electricity by harnessing the power of waves and tidal streams – in the sea. EMEC is also pioneering the development of a green hydrogen economy and smart local energy systems.

As a plug-and-play facility EMEC helps reduce the time, cost and risk of testing innovative sustainable technologies.

EMEC's work closely aligns with the West of Orkney Wind vision to develop a world leading offshore windfarm which will support deep decarbonisation across the Scottish economy, while maximising socio-economic benefits to the Scottish supply chain and the communities in which we operate. The project offers a number of important benefits.

The European Marine Energy Centre Ltd., The Charles Clouston Building, ORIC, Back Road, Stromness, ORKNEY KW16 3AW
Email: info@emec.org.uk **Web:** www.emec.org.uk **Tel:** 01856 852060
Registered in Scotland, registered number: SC249331 **VAT Registration Number:** GB 828 8550 90

Location

Orkney and its surrounding waters present a clear opportunity to deliver significant amounts of carbon free and truly sustainable power. The development of this project enables organisations such as EMEC to help the existing supply chain in the north of Scotland build operational capacity and scale up activities.

With the West of Orkney Windfarm just 30 km west of EMEC's Billia Croo test site, it provides an ideal pathway for emerging technologies to scale up and move out into the harsh waters around us.

Innovation

EMEC is working with West of Orkney Windfarm on a new Offshore Wind Research and Innovation (R&I) Programme to explore ways to overcome technical challenges, embed economic benefits in the north of Scotland and deliver offshore wind faster, cheaper and at lower risk. Building upon core strengths in technical research programme delivery, this partnership will be the first with a large-scale, commercial offshore wind farm and will support further diversification of the organisation.

EMEC has been gathering data around the west coast of Orkney for the last 20 years and delivered a wide range of R&D projects for green offshore technologies, learning which will be fed into the windfarm development.

Economic impact

The EMEC Offshore Wind Research and Innovation (R&I) Programme is part of a wider West of Orkney Windfarm initiative to support the offshore wind supply chain locally, in Scotland and across the UK. The project will be key to unlocking significant private and public sector investment into infrastructure in the North of Scotland, creating wider benefits for the region and de-risk the delivery of future offshore wind projects.

Prior Economic Impact Assessment on EMEC's work in the region demonstrated that the development of EMEC and the marine energy supply chain has had a positive effect locally, and across the UK, in terms of employment and encouraging public and private investment to help service the sector, creating 370 million GVA to the UK economy, £263 million GVA in Scotland and £130 million GVA to Orkney economy, supporting 224 jobs locally[1].

Working with the West of Orkney Windfarm will enable EMEC to grow its capacity in offshore wind innovation and generate even more supply chain and employment opportunities in Orkney.

Environmental and energy system benefits

EMEC's own vision is to pioneer the transition to a clean energy future. The wind farm will make a significant contribution towards that clean energy future, through the

[1] *Economic impact assessment by BIGGER Economics on quantifiable impacts attributable to EMEC: 2003-2023*

production of over 2 GW of renewable energy by 2030, as well as contributing to the Scottish and UK Governments net-zero targets.

Skills development

The project funding two full-time positions in Caithness, Sutherland and Orkney as part of the UHI STEM outreach programme is highly valuable to ensure that young people in our communities can be inspired to pursue their studies and develop skills for careers in the sector.

Energy transition

The West of Orkney Wind Farm also presents part of the opportunity to transition present fossil fuel jobs towards sustainable ones. The energy harvested by the wind farm has the opportunity to be used in the proposed Flotta Hydrogen Hub and help transition the site to hydrogen or fuels made from it. This sort of initiative would be highly unlikely to take place at Flotta were it not for the abundant renewables in the immediate area.

Offshore wind, along with tidal energy in the Pentland Firth, has the potential to transform the energy flows of the nation and to that end EMEC whole heartedly supports this properly sustainable project.

Yours sincerely

Managing Director

Focus North

From:	
To:	MD Marine Renewables
Cc:	
Subject:	FOCUS NORTH Letter of support West of Orkney Windfarm 16 November 2023
Date:	18 November 2023 10:48:51
Attachments:	image003.png image004.png image005.png image006.png image007.png image008.png image002.png Focus North Independent Chair letter of support for WoO Windfarm.pdf

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Dear Sirs please find attached a letter of support for the West of Orkney offshore Wind farm licencing application from FOCUS NORTH.

Kind regards

Focus North Programme Manager

Mob: | Direct:

FOCUS NORTH

Focus North is a partnership between Caithness Chamber of Commerce, NRS Dounreay, Highland Council, Highlands & Islands Enterprise, Nuclear Decommissioning Authority, Skills Development Scotland, UHI North, West and Hebrides and Scottish Government.

FOCUS NORTH

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FOCUS NORTH

DRIVING OPPORTUNITIES THAT SHAPE OUR FUTURE

16 Oct 2023

Marine Scotland Licensing Operations Team,
Marine Laboratory,
375 Victoria Road,
Aberdeen, AB11 9DB

Dear Sirs,

I am writing to you in my capacity as the Independent Chair of FOCUS NORTH in support of the licencing application by West of Orkney Windfarm.

Focus North, the informal partnership of the main public and private sector bodies with a socio−economic remit in the far north of mainland Scotland, has been working together since 2007(previously CNSRP) to develop the economy in Caithness and North Sutherland. Partners are: - The Caithness Chamber of Commerce; NRS Dounreay; The Highland Council; Highlands & Islands Enterprise; The Nuclear Decommissioning Authority; Skills Development Scotland; UHI North, West and Hebrides and The Scottish Government.

Strategic direction for the partnership is driven by the Executive board, consisting of chief executives, directors, and other senior officers of the partner organisations. Supporting the Executive board is an Advisory Board, led by the leader of the Highland Council which provides strong links to community, third sector, commercial and other public body representatives. As a result, the partnership's activities are formed through widespread stakeholder discussion and consensus.

The economic opportunities for the North coast have grown significantly in recent years. Offshore wind developments, Sutherland Spaceport, Hydrogen production, Net zero Transport projects and the Flow Country UNESCO World Heritage site bid are all progressing. These new undertakings complement the existing operations at Dounreay, on its critical decommissioning journey, and from local businesses including a vibrant tourism industry who compete at national and international level. These large-scale investments offer a once-in-a-generation opportunity to transform the economy in the north of mainland Scotland. As result, working under the banner Focus North the key public and private sector organisations, including the Chamber of Commerce, have developed an ambitious programme to support economic growth built on the Just Transition to net zero.

To crystallise the local benefits and provide the transformational economic benefits it is essential that the projects outlined above progress in a timely manner. The West of Orkney wind farm is one of these vital opportunities, and as a result is built into the planning for the Focus North programme. The project will result in substantial investment in local ports and facilities and provide well-paid long-term employment in a growing industry. The skills development, and future opportunities for young people are crucial for the future population growth in our region. Through collaborations with other wind farm developers £900,000 has already been committed to STEM activity around the region, and expansion of apprenticeships and further skills investments are expected to grow as the project progresses.

On its own this project is extremely important to our regional economic development, but the synergistic effect of this alongside other projects should not be underestimated. Developing a critical mass of renewable energy activity in the region, which already produces 12.5 times the power it consumes, will help retain young people in the region and attract other working age families here. On its own West of Orkney will provide a significant boost to renewable energy production but these synergistic effects will also help increase the speed and reduce the costs of development of some of the nation's other most critical renewable energy projects.

Tollemache House, High Street Thurso, Caithness, KW14 8AZ Scotland
T +44 (0)1847 805 216, peter.faccenda@hient.co.uk

I therefore hope it is clear how vitally important it is that the West of Orkney windfarm development continues to the Focus North programme. Partners are fully engaged in developing the local economy to helping grow the economy in a remote and rural area and we fully support the licencing application to help achieve this.

Yours faithfully

Focus North Executive Board Chairman

Focus North is a partnership between Caithness Chamber of Commerce, NRS Dounreay, Highland Council, Highlands & Islands Enterprise, Nuclear Decommissioning Authority, UHI North West, and Hebrides, Skills Development Scotland and The Scottish Government.

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T +44 (0)1847 805 216, peter.faccenda@hient.co.uk

Graemsay Hoy and Walls Community Council

MD Marine Renewables

From: Kim Dobrzynski <ilohoywalls@gmail.com>
Sent: 04 December 2023 14:30
To: MD Marine Renewables
Subject: Fwd: West of Orkney Windfarm - section 36 and Marine Licences Application Consultation

Categories: Added to Tracker, Saved i eRDM

Good afternoon,

I am forwarding the responses received by the community councillors as promised.

Kind regards

Kim
Kim Dobrzynski
Island Link Officer
Graemsay, Hoy & Walls

On Mon, 27 Nov 2023 at 17:05, [redacted] wrote:

> Hi Kim and everyone
> Sorry for my late reply, it was a busy week ladt week.
> I think additionally what we agreed to ask at the meeting is that we would like to ensure there is further consultation in future specifically where cabling is concerned? This would ensure the community is aware of the routes across Hoy any cables would take and to make sure an element of community benefit is included by the developers in recognition of the impacts to our landscape and any disruption that may occur. This might include disruption and damage to the road up to Hoy by heavy vehicles.
>
> [redacted]
>
> On Mon, 20 Nov 2023, 15:55 Kim Dobrzynski, <ilohoywalls@gmail.com> wrote:
>
> > Good afternoon all,
> >
> > I am forwarding the response I have received from West of Orkney Wind Farms regarding Community Councillors request for further consultation on the section 36 and Marine Licences Application Consultation.
> >
> > Please also take note of the link to the Non-Technical Summary for you to have a look at.
> >
> > Could you please confirm that you have received this email and that you acknowledge the extension of the consultation period to the 14th December 2023?
> >
> > Many thanks
> >
> > Kim
> > Kim Dobrzynski
> > Island Link Officer
> > Graemsay, Hoy & Walls

Green Marine

From:	
To:	MD Marine Renewables
Subject:	SUPPORT FOR WEST OF ORKNEY WIND FARM
Date:	08 November 2023 17:10:45
Attachments:	image002.png West of Orkney Wind Farm Support.pdf

---

Dear Scottish Government's Marine Directorate – Licencing and Operations Team (MD-LOT),

Please see attached letter of support for your consideration please confirm receipt.

Best Regards

GREEN MARINE
ENERGY SUPPORT SERVICES
Managing Director
Station House • North End Road • Stromness • Orkney Islands • KW16 3AG
Tel: I Web: greenmarineuk.com

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Green Marine(UK) Ltd • Station House
North End Road • Stromness Orkney
Islands • KW16 3AG
E: Info@greenmarineuk.com

8th November 2023

Subject: LETTER OF SUPPORT FOR THE WEST OF ORKNEY WINDFARM PROJECT

Dear Scottish Government's Marine Directorate – Licencing and Operations Team (MD-LOT)

On behalf of Green Marine(UK)Ltd, I wish to extend our support for the West of Orkney Windfarm project, located 30km off the west coast of Orkney and 25km from the north Sutherland coast. This project, with a planned capacity of around 2GW and an anticipated initiation of power supply by 2029, is poised to make a significant contribution to the region's economy and energy infrastructure.

The West of Orkney Windfarm holds a strategic position within the "N1" Plan Option, reflecting thoughtful planning and stakeholder engagement facilitated by the Scottish Government's Sectoral Marine Plan for Offshore Wind Energy. The project's progression, underscored by securing an Option Agreement through the ScotWind leasing process, illustrates a forward-thinking approach to sustainable offshore wind farm development.

For Green Marine(UK)Ltd, the project presents opportunities for the growth and diversification of our services. The development and maintenance phases of the windfarm will enable us to invest in new assets, expand our workforce, and further develop our expertise with a focus on employing and training local personnel from Orkney and the surrounding areas.

Moreover, the project's potential collaboration with the Flotta Hydrogen Hub is particularly synergistic with our interest in developing hydrogen-powered vessels. This aligns with our commitment to innovation and the broader goal of achieving net-zero emissions during offshore wind farm operations.

We anticipate that the West of Orkney Windfarm will facilitate the expansion of our existing offshore and onshore services, enhancing our operational capabilities and contributing positively to the local economy.

Green Marine(UK)Ltd looks forward to the possibility of contributing to this project, leveraging our local knowledge and maritime expertise to ensure its success.

Yours sincerely,

Managing Director

Green Marine(UK)Ltd

Email:

Harland & Wolff

From:	Albert Allan
To:	MD Marine Renewables
Subject:	West of Orkney - Offshore Application - Representation
Date:	06 November 2023 12:36:06
Attachments:	0.png

Dear Team,
I would like to record my support for the West of Orkney Offshore Wind Farm application, recently registered with Scottish Government – Marine Scotland Licensing Team.
I have attended a number of public events by the West of Orkney team who have engaged both with communities and businesses.
They have listened and I believe are very committed to Scottish Supply Chain through all of the potential work scopes.
I would hope the Scottish Government will put a high % line in terms of maximising Scottish content to include all scopes and not just Operations and Maintenance, but will insist on 75% fabrication content to be completed through the Scottish Supply Chain.

My reason for supporting this application covers a number of items:

- **Good location** - one of the best locations for a highly competitive offshore wind project in Scotland due to the combination of high, consistent wind speeds and water depths that can accommodate fixed foundations.

- **Economic benefits** – the wind farm will result in a substantial investment into the north of Scotland, and has the potential to have a transformational impact on local communities over its lifetime – ensuring maximum Scottish Fabrication Content,

- **Economic benefits** – the project will be a key enabler of significant private and public sector investment into infrastructure in the North of Scotland such as ports, transmission infrastructure and additional offtake solutions, which will create wider benefits for the region and de-risk the delivery of future offshore wind projects.

- **Environmental benefits** – if granted, the wind farm will make a significant contribution towards tackling climate change, through the production of over 2GW of green, clean renewable energy by 2030.

- **Energy benefits** – the wind farm has the potential to meet the average annual electricity needs of over 2 million households each year, contributing significantly to the Scottish and UK Governments net-zero targets

- **Apprenticeships** - the development is already supporting UHI STEM, as lead partner in a £900k programme of activity over three years, creating the best opportunity for local young people to get involved with the project and the wider energy transition in Scotland.

Best Regards
Albert

Albert Allan
General Manager (Arnish)
t: +44 1851 481921
[redacted]

Arnish Point,Arnish,HS2 9JZ
albert.allan@harland-wolff.com
harland-wolff.com

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Company Registration: 13444660 VAT Registration GB 918 3948 85

Heriot-Watt University

From:
To: MD Marine Renewables
Subject: West of Orkney representation
Date: 10 November 2023 14:05:31
Attachments: Letter of Support WoO Oct 23.1.pdf

Please find attached a representation regarding the Wets of Orkney offshore application.

If you need any further information please do not hesitate to get in touch.

Best regards

Professor
Director International Centre for Island Technology (ICIT)
Heriot-Watt University, Orkney Campus
Robert Rendall Building
Franklin Road, Stromness, Orkney
Scotland, KW16 3AN
email:
Tel:

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10th November 2023

Marine Scotland Licensing Operations Team

Letter of support for West of Orkney Wind farm – offshore application

I am writing to express my support for the recent West of Orkney (WoO) windfarm offshore application.

This project is part of a bigger picture of national energy transition and this development will make a substantial, and wholly necessary, contribution to decarbonizing the national energy supply.

I would, however, like to make additional positive comments about the approach adopted by the WoO team. The WoO team have taken every opportunity to consult with local communities in both Orkney and Caithness – the areas most likely to be impacted by the development. I have attended a number of these consultations during which communications have always been clear, and as impartial as possible. I have repeatedly observed great care, and time, taken to illustrate and explain the visual and other impacts of the development. The team have been equally diligent in listening to comments from the community. I believe that this process, and the information collected, has fed through into the EIA for this project. In my opinion the public engagement associated with this has been exemplary.

In addition to engaging with stakeholders, WoO are aware of the wider socio-economic benefits and challenges associated with this development. The team appears committed to working with the local supply chain, talking to individual organizations, and participating in local 'meet the supplier' events. WoO is with local suppliers to help establish local capacity to service the industry going forward. This partnership approach will strengthen the existing renewable energy cluster in Orkney - further enhancing its capacity and international reputation.

WoO is equally cognizant of the need to develop a future workforce. To address this issue, a training and workforce strategy is being developed by WoO. I have delivered MSc training in renewable energy, in Orkney, for over 20 years. I have observed, at first hand, the benefit that delivering this training locally can bring to the community. It brings young talent into the islands, simultaneously meeting the needs of the local energy cluster, and revitalizing the community. This is creating a rural economy based on cutting-edge science and technology. Together with developing the supply chain, the local delivery of training presents a huge opportunity for the islands - but it is an opportunity that could be lost. WoO recognizes this opportunity and has already made significant early investment in local schools STEM activity. The WoO team is now exploring opportunities to support higher education activity in the region. This foresight is to be commended.

If you require any further expansion on the points raised above, please do not hesitate to get in touch.

Best regards

Professor Sandy Kerr
Director of ICIT – HWU Orkney Campus

International Centre for Island Technology
School of Energy, Geoscience, Infrastructure and Society
Heriot-Watt University, Robert Rendal Building, Franklin Road, Stromness, Orkney KW16 3AN United Kingdom
Telephone +44 (0)1856 850 605 Fax +44(0)1856 851 349 Email icit@hw.ac.uk

International Centre for Island Technology
School of Energy, Geoscience, Infrastructure and Society
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Telephone +44 (0)1856 850 605 Fax +44(0)1856 851 349 Email icit@hw.ac.uk

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Hereema Marine Contractors

From:	
To:	MD Marine Renewables
Cc:	
Subject:	Offshore Application West of Orkney Windfarm - Representation Heerema Marine Contractors
Date:	20 November 2023 14:35:19
Attachments:	2023-11-20_-_Scottish_Government_-_Representation_in_support_of_the_West_of_Orkney_Windform_Project..pdf

Dear Sir / Madam,

Please find attached Heerema Marine Contractors' representation, signed by our chief commercial officer, in support of the offshore consent application for the West of Orkney Wind farm for your consideration.

Kindly let us know if the representation is received in good order, and should you be looking for further clarification, please do not hesitate to contact us.

On behalf of Heerema Marine Contractors,

Your sincerely,

Commercial Director
Offshore Wind

Heerema Marine Contractors Nederland SE

Vondellaan 47, 2332 AA Leiden, The Netherlands
Tel.
Cell.
Web http://www.heerema.com

Heerema Marine Contractors Nederland SE is registered with the Dutch Chamber of Commerce under nr. 58180362.

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Heerema Marine Contractors Nederland SE

Vondellaan 47, 2332 AA Leiden
The Netherlands

Tel.: +31 [0]71 - 579 90 00
www.heerema.com

Registered in Leiden no. 58180362

The Scottish Government
Attn. Marine Scotland Licensing Operations Team
Marine Laboratory
375 Victoria Road
AB11 9DB Aberdeen
United Kingdom

Date 20 November 2023
Subject Representation in Support of the West of Orkney Windfarm Project

Dear Members of the Licensing and Operations Team (MD-LOT),

I trust this letter finds you well. I am writing on behalf of Heerema, where I hold the position of Chief Commercial Officer, to express our strong support for the West of Orkney Windfarm project, which is currently under review by the esteemed Scottish Ministers through the Marine Directorate – Licensing and Operations Team.

This moment marks a critical juncture in the progression of the West of Orkney Windfarm project, and we recognize the importance of voicing our support to underscore the project's considerable environmental and economic benefits for the Highlands, the wider Scotland, and the United Kingdom. Heerema, as an Ambassador partner to the West of Orkney Project since May 2021, has been actively engaged in understanding and addressing the unique challenges associated with installing a 2.25GW Wind farm in the challenging Atlantic environment.

Key points illustrating Heerema's support and commitment to the West of Orkney Windfarm project include:

1. **Long-standing Heritage in the North Sea and North Atlantic:** With a rich history spanning close to 60 years, Heerema has played a pivotal role in installing, and in later years also the decommissioning of, critical UK, and Scottish, infrastructure, such as oil & gas platforms in the North Sea. Our extensive experience in the North Atlantic positions us well to contribute to the successful implementation of the West of Orkney Windfarm.
2. **Diverse Engagement with the Scottish Stakeholders:** Heerema has, where possible, actively utilized the Scottish supply chain, demonstrating our drive to establish collaboration with Scottish parties. Specific instances include recent innovation work in collaboration with University of Dundee on silent- foundation pile installation techniques. In the past we have performed several other innovation projects with several Scottish universities on testing and pre-qualification on deepwater pipelay innovations such as rigid reeled pipelay and friction clamp technologies.

3. **Transition to Offshore Wind:** Heerema is strategically transitioning into the offshore wind arena, with active involvement in projects such as the He Dreiht project in Germany, the Empire Wind project offshore New York and the Greater Changua projects in Taiwan. This transition aligns seamlessly with the goals of the West of Orkney Windfarm project and emphasizes our dedication to (offshore) renewable energy.
4. **Support for Sustainable Development in Scotland:** Heerema is fully supportive of Sustainable Development in Scotland (SDWQ), recognizing its potential to be a highly additive facility for the West of Orkney windfarm, further enhancing its positive impact on the region.

We understand the gravity of the decision before the Scottish Ministers and would like to formally submit our representation in support of the West of Orkney Windfarm project.

We appreciate your attention to this matter and are available to provide any additional information or clarification required. Thank you for considering Heerema's perspective, and we look forward to a favourable outcome for the West of Orkney Windfarm project.

Yours sincerely,
Heerema Marine Contractors Nederland SE

JChief Commercial Officer

HiDef

From:
To: MD Marine Renewables
Cc:
Subject: West of Orkney Windfarm - representation to Scottish Ministers
Date: 17 November 2023 10:14:08
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png
image007.png
image008.png
image009.png
image010.png
HP00126_100_West of Orkney_letter 171123_FINAL.pdf

Morning,

Please find attached a letter from HiDef regarding the West of Orkney windfarm.

Regards

HiDef AERIAL SURVEYING LIMITED

Bio Consult SH

Managing Director

0131 376 3520

www.hidefsurveying.co.uk

Edinburgh
EH3 5AZ
United Kingdom

HiDef Aerial Surveying Limited, a company registered in England and Wales No. 5587044 at
Unit 2 Dobies Business Park, Lillyhall, Workington, Cumbria, England, CA14 4HX
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The Scottish Government,
Marine Scotland Licensing Operations Team,
Marine Laboratory, 375 Victoria Road,
Aberdeen, AB11 9DB
via email

Reference: HP00126-000_letter
17 November 2023

West of Orkney Windfarm

HiDef Aerial Surveying Limited

HiDef Aerial Surveying Limited ("HiDef") have worked on this project, as one of a portfolio of offshore wind sites globally since inception in 2018. We have undertaken studies on marine megafauna in the area and considered the information alongside other areas in both Scottish and UK contexts.

As empirical data on the impacts of offshore wind farms on seabirds and marine mammals is now emerging, it suggests that predictions of negative impacts through EIA/HRA processes is perhaps overtly precautionary. The stringent process has been necessary to developing our understanding but consequently the consent process for developments is slow. Clearly the location of an offshore wind farm is a key factor in the resultant environmental impacts, but this is to be balanced with the need for a location with high, consistent wind speeds and water depths that accommodate fixed foundations; these are characteristics of the west of Orkney site. HiDef is a science driven organisation and we believe in undertaking rigorous science with our clients and being open with results. This ethos has been applied to our work with the West of Orkney team and we believe has resulted in a consentable project.

The West of Orkney offshore wind farm will make significant contribution towards Scotland's ambitious target to achieve net zero emissions of all greenhouse gases by 2045, through production of over 2GW of green, clean renewable energy by 2030.

Economically, the wind farm will undoubtedly result in a substantial investment into the north of Scotland and be an enabler of significant investment into infrastructure in the North of Scotland such as ports, transmission infrastructure and additional offtake solutions, which will create wider benefits for the region. The wind farm also has the potential to meet the electricity needs of over 2 million households per year, with economic benefits to those households and the security of clean, renewable energy.

As a development it is ahead of the curve in relation to surveying and technology, as well as location providing great potential in terms of wind speeds and also engineering options through water depths that can accommodate fixed foundations.

Yours sincerely,

Managing Director
HIDEF AERIAL SURVEYING LTD

HiDef Aerial Surveying Limited
Unit 2 Dobies Business Park, Lillyhall, Workington, Cumbria, England, CA14 4HX
enquiries@hidefsurveying.co.uk www.hidefsurveying.co.uk
Company Registration No: 5587044

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Certificate Number 12820
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Historic Environment Scotland

Marc MacFarlane

From: Laura Denholm <laura.denholm@hes.scot>
Sent: 13 December 2023 09:36
To: MD Marine Renewables
Subject: West Of Orkney WF - HES Response
Attachments: 20231213WestOfOrkneyWF HESResponse.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Objective: -1

Please see our response attached.

Kind regards

Laura

Laura Denholm |Casework Technician | Heritage Directorate Historic Environment Scotland | Àrainneachd Eachdraidheil Alba Longmore House, Salisbury Place, Edinburgh, EH9 1SH
T: 0131 668 8898
E: laura.denholm@hes.scot

FESTIVE SERVICE: Our planning, consents and advice service will be closed from 4.30pm on Friday 22 December, reopening on Wednesday 3 January 2024. We will not be responding to any statutory consultations or related enquiries during this period. We will respond as soon as we can in the New Year. If you need our advice by a certain date please let us know by emailing HMConsultations@hes.scot". If you need our advice on the historic environment urgently, for example if there has been a fire or flood, then please call 0131-668-8716. This number will be manned between 10am and 4pm on the working days between Christmas and New Year when the rest of the service is closed.

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• Scheduled monument consent applications and related pre-application or post-application enquiries: ScheduledMonumentConsent@hes.scot • Statutory consultations and any associated pre-application enquiries: HMConsultations@hes.scot • General enquiries not related to scheduled monument consent or statutory consultations: HMEnquiries@hes.scot • If you're not sure which mailbox to use please ring us on 0131-668-8716 and we will be happy to help you!

www.historicenvironment.scot

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20231213WestOfOrkneyWF HESResponse

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HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to:
MD.MarineRenewables@gov.scot

Marine Directorate (Marine Renewables)
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: 300057245
Your ref: 00010559/00010561
13 December 2023

Dear Marine Directorate

The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017
West of Orkney Offshore Windfarm - Section 36/Marine Licence/EIA Report

Thank you for your consultation which we received on 02 October 2023. We have considered it and its accompanying EIA Report in our role as a consultee under the terms of the above regulations Our remit in this case is world heritage sites, scheduled monuments and their setting, category A-listed buildings and their setting, and gardens and designed landscapes (GDLs) and battlefields in their respective inventories. We also provide advice on marine archaeological matters to the Marine Directorate.

Our Advice

The Environmental Impact Assessment does not include a consideration of impacts on the designated cultural heritage asset closest to the turbine array; the Category A listed Sule Skerry Lighthouse (LB18598)

The EIA Report does not therefore contain sufficient information for the Marine Directorate to make an informed decision on the application. Further details are provided in the attached Annex, including a description of the information needed to address this matter.

We can advise you that although there is no specific consideration of the impact of the development on the lighthouse, we have undertaken our own basic assessment. Based on the current information, we consider that the development proposals are unlikely to result in an impact that would merit objection for our interests. Once we have the additional information detailed in the Annex, we will be able to provide you with a final assessment covering all the cultural heritage assets within our remit.

Further Information

Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-

historic-environment-guidance-notes/. Technical advice is available through our Technical Conservation website at www.engineshed.org.

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

ANNEX: Our detailed comments

Proposed Development
We understand the development comprises up to 125 turbines standing up to 360m to blade tip, plus associated infrastructure.

Our interest
The boundary of the development area is located approximately 5km south-east of the category A listed building Sule Skerry Lighthouse (LB18598)

The EIAR does not consider the potential impact of the development on the setting of this lighthouse, although we note it is shown on Figure 16-1 of the Cultural Heritage chapter and is listed in Table 4 of the Gazetteer. Historic Environment Scotland did not highlight the presence of the lighthouse in our scoping and pre-application consultation responses and this omission was not identified or rectified by any of the other parties involved in the consultation process. As a result, the impact of the development on the cultural significance of Sule Skerry Lighthouse has not been assessed in the EIA Report.
The proposed turbines would be readily visible and prominent in views from the lighthouse to the southeast and south.

Significance of the heritage asset
Category A listed Sule Skerry Lighthouse (LB18598) is located approximately 5km north-west of the proposed array. The lighthouse was completed in 1893 to designs by Stevenson. It is Britain's most remote lighthouse, lying 40 miles west of Orkney and 37 miles northeast of Cape Wrath.

The lighthouse was built in response to a need for increased protection of the 'north-about' route around Britain and the 160 miles of seaboard between the Pentland Firth and Muckle Flugga. The island is low lying and almost out of sight of land. This meant there was need for an extra-powerful light source on top of an approximate 27m high tower. Accommodation for the families of the lighthouse keepers was in Stromness and this is where the lighthouse was normally serviced from. The lighthouse is now automated and unmanned. The light has a range of 21 nautical miles.

The cultural significance of the lighthouse primarily relates to its historic role as a navigational aid, its form and design by Stevenson, and its remoteness. Views to and from the lighthouse are important to our understanding, appreciation and experience of this cultural significance.

Important views from the asset include those to the surrounding seascape because they are important to understanding its remoteness. Historically, the lighthouse was normally approached from the east (Stromness) and there is a landing point on the east side of the island. Views of the lighthouse and island on this historic line of approach from the east

are important to understanding how it was reached. Visibility of the lighthouse from shipping routes is also important to an understanding of its function. We note that the lighthouse has been considered as a key aid to navigation and potential impacts on shipping are considered in Chapter 15 of the EIAR.

Our advice
We do not consider the EIA Report contains sufficient information to allow the Marine Directorate to make an informed decision on this application. In order to do so, further information is required as follows –

- An assessment of the setting of Sule Skerry Lighthouse and how it contributes to the cultural significance of the lighthouse.
- An assessment of how the proposed turbines would affect the contribution that important views make to an understanding, appreciation and experience of the lighthouse's cultural significance.
- A wireline visualisation that illustrates potential impacts of the development on views from the lighthouse.

Based on the information currently available we consider that it is unlikely that the proposed development would raise issues of national importance such that we would object. The provision of the additional information requested above would allow us to confirm or amend that position and to provide Marine Scotland with our informed comments on the application.

Historic Environment Scotland
13 December 2023

HOWCO

From: Shaun Tollett
To: MD Marine Renewables
Subject: Representation In Support Of Wet of Orkney Wind Farm
Date: 03 November 2023 10:59:35

To Whom It May Concern,

We would like to register our support of development of the West of Orkney Wind Farm. We are encouraged in our support by what we consider will be a significant economic impact development will have on the North of Scotland region and beyond. A development of this magnitude will not only be of economic benefit within the immediate local areas but will have the effect of developing and supporting an extended supply chain that will be of economic benefit to Scotland.

As a potential supplier to the project we believe that it will secure employment both in terms of securing existing labour, opportunities for further recruitment and provide the requirement to increase apprenticeships to support both the immediate and long term requirements of this project.

This project is key to encouraging the support of our parent organisation who could consider long term investment into our Scottish manufacturing facilities to develop manufacturing capacity to meet the demands of construction and through life support of this project.

As a company who supports and is committed to reduction in our Carbon footprint we would welcome the additional 'green energy' that this project will ultimately deliver and support the net-zero ambitions of the Government.

Yours faithfully,

SHAUN TOLLETT

Shaun Tollett | Business Development Manager

HOWCO
| Irvine, Ayrshire | KA11 5AL
Tel: +44 (0) 1294 313131 | Mobile: [redacted]
shaun.tollett@howcogroup.com

Leask Marine

From:	John Macleod
To:	MD Marine Renewables
Subject:	West of Orkney Offshore Windfarm Application - Letter of Support
Date:	23 October 2023 14:29:21
Attachments:	image002.png West of Orkney Windfarm Letter of Support 20.10.2023.pdf

---

To The Scottish Government's Marine Directorate – Licencing and Operations Team (MD-LOT)

On behalf of Leask Marine Ltd, we ask that the attached letter of support for The West of Orkney Offshore Wind Farm's Scotwind Leasing project is accepted to support their marine planning consent application.

Regards
John

John F Macleod
Commercial & HSEQ Director
LEASK MARINE
6 Crowness Road, Hatston Industrial Estate, Kirkwall, Orkney, KW15 1RG
D/D: +44 (0)1856 870 412 | T: +44 (0)1856 874 725 | M: +[redacted] | E: john@leaskmarine.com
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Leask Marine Ltd
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W: www.leaskmarine.com
E: info@leaskmarine.com

Marine Scotland Licensing Operations Team
The Scottish Government
Marine Laboratory
375 Victoria Road, Aberdeen
AB11 9DB

October 20,2023

Letter of Support – West of Orkney Windfarm

To whom it may concern,

This letter is to support the West of Orkney Offshore Wind Farm's ambitious and innovative Scotwind Leasing project application. Leask Marine believe that this project has the potential to add significant value with their presence and commitment to long terms contributions in Scotland's marine renewable sector. We believe that their presence to date proves without doubt their facilitation of using the local supply chain, and this would be no different if they were to succeed in this offshore wind application.

We would like to confirm Leask Marine's interest in supporting the projects commercialisation activities in generating local system cost reductions, manufacturing, assembly, and commercial readiness activity programs. As an island community business, we support their application because their presence to date has proved their commitment to developing long term relationships with the local supply chain and within the local communities in which they will operate.

Leask Marine is a company based in Orkney, UK, and was established as a marine contractor in 1985 and has grown to be amongst the worlds most experienced marine energy supply chain businesses having successfully completed projects for many international developer's devices. With more than 16 years of experience working with marine renewables, Leask Marine has supported deployment and O&M activities and has become a pioneer in supporting offshore renewables. Leask Marine's commitment is to support the development of an increasingly competent, capable, and competitive offshore renewable energy supply chain, and our desire is to further increase our capability, competence, and competitiveness, and accelerate the growth in the offshore renewable energy industry.

Leask Marine is well positioned to provide commercially viable support to the West of Orkney Wind Farm installation and operations, having successfully completed similar marine operations to this for many clients.

Yours sincerely,

[redacted]

Douglas W Leask
Managing Director
Leask Marine

Marine Directorate – Science, Evidence, Data and Digital (Commercial Fisheries)

Marc MacFarlane

From: Abby Gray on behalf of MD-SEDD-RE Advice
Sent: 30 November 2023 14:13
To: Brendan Campbell
Cc: MD Marine Renewables
Subject: RE: Advice Request: West of Orkney Wind Farm - Section 36 and Marine Licences Application

Good Afternoon,

Please find comments below for **commercial fisheries only.**

2023-10-03 - West of Orkney Wind Farm - Section 36 and Marine Licences Application - RE Response Letter
https://erdm.scotland.gov.uk/documents/A45442326/details

Can we please request an extension for Physical Processes? Our adviser has been extremely busy and has not had a chance to review this yet.

Best Wishes,
Abby

Abby Gray (she/her)
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Brendan Campbell

Marine Directorate Licensing Operations Team

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30 November 2023

WEST OF ORKNEY WIND FARM - SECTION 36 AND MARINE LICENCES APPLICATION

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

Commercial fisheries

Data

MD-SEDD are content with the data sources used in the EIA, however MD-SEDD advise that the '*Gridded fisheries data within Scottish waters for Scottish fishing vessels under 12m overall length - annual averages 2017 to 2021'* (SpatialData.gov.scot) provides some additional spatial data on the inshore, smaller vessel's activities. The outputs from this data set do not overlap with the planned site but will help to inform the baseline of activity in the surrounding area. These data will work in combination with the findings obtained for the consultation with fishing industry stakeholders to create a fuller picture for inshore fisheries.

The EIA report acknowledges the *Scotmap* outputs are to be considered out of date but that they broadly still reflect areas where fishing activity of vessels 15 m and under still occurs. In addition to agreement from the fishing industry, MD-SEDD advise that the *Scotmap* outputs are still relevant in this case but that the gridded fisheries data layers for vessels 12 m and under mentioned above will update and complement the *Scotmap* data.

MD-SEDD agree it is a good approach to also use the EMODnet AIS data as a complementary data set to the VMS data to further identify fishing activity. The shape of the fishing tracks generated by the AIS routes have been used to infer the type of fishing undertaken and corroborate the categorisations done by other data sources like the VMS data.

Potential impacts

MD-SEDD note that creelers are active in the development area and that they have smaller operating ranges and lower availability and flexibility of where they can fish meaning that they are more

sensitive to the potential impacts of the development such as fisheries displacement and loss of access to fishing grounds. MD-SEDD agree that these two effects have been assessed as moderate and significant effects in EIA terms for creelers.

MD-SEDD note that the development area is over extensive boulder fields and that boulder clearance will be required. MD-SEDD advise that boulder clearance activities are discussed with the fishing industry in terms of sensible locations to relocate boulders that will not cause impacts to bottom contact fishing or drastically change the habitat of the area boulders are relocated to. MD-SEDD also advise that details of the boulder clearance activities such as new location of boulders large enough to cause any damage to fishing gear are mapped out and reported to the fishing industry for awareness of any potential gear snagging risks.

MD-SEDD note that up to 29% of export cables may require protection. Given the presence of trawlers and dredgers in the area, MD-SEDD advise that any cable protection measures are 'fishing friendly' to minimise potential gear snagging risk and that rock berms should have a 1:3 profile and graded rocks should be used.

Mitigation and monitoring

MD-SEDD highlight that the only mitigation for impacts to fishers, in particular creelers, is cooperation agreements with fishers where relocation of static gear will be requested. The cooperation agreements may take the form of new gear, adaptions to gear and guard vessel offset. MD-SEDD advise careful consideration of this proposed mitigation option as a method to reduce the significance of the impacts from moderate and significant effect to minor (not significant) effect bearing in mind that the Scottish Government have no remit in cooperation agreements or compensation.

MD-SEDD also do not recognise the term 'Guard vessel offset'. It is presumed this means that fishing vessels impacted by the development may be given the opportunity to act as guard vessels during the construction of the development instead of fishing. MD-SEDD would like to clarify what the term 'Guard vessel offset' means and advises that MD-LOT take into account the difficultly that some fishing vessels have in gaining all of the relevant certification to act as a guard vessel.

At the scoping application stage, MD-SEDD recommended commercial fisheries monitoring however note that the developer has said "Following engagement with the fishing industry, it was concluded that it would be more meaningful to put resources into research projects into commercially important fish and shellfish species". MD-SEDD advise MD-LOT to seek evidence in terms of the engagement and outcome to support this conclusion to ensure this view reflects that of the fishers impacted. Whilst contributions to research projects are welcome, MD-SEDD highlight to MD-LOT the difficulty in securing this as a consent condition due to the unknown nature of what this proposed contribution would entail and how it could be discharged.

Due to the moderate and significant effect in EIA terms identified in the assessment for displacement of fishing effort in the array area and loss or restricted access to fishing grounds in the array area for creelers, MD-SEDD advise that the developer undertake pre-, during and post-construction commercial fisheries monitoring. Crab and lobster creelers should be monitored as they have the potential to be most impacted by the development. This will help to understand the effect of the construction and operation of the development on commercial fisheries. The monitoring can be desk based and should include but not be limited to collating landings data by ICES rectangle on the local creel fishery (crab and lobster) by port on a monthly basis, collating finer scale resolution data from other relevant sources where available and monitoring data and evidence to better understand any variations and patterns in creel fishing activity that may be attributed to the construction and operation of the wind farm. It should focus particularly on the displacement of creelers and loss of access to fishing grounds, as well as any secondary displacement effects such as competition with other users in areas where fishing is displaced to and socio-economic impacts.

MD-SEDD have commissioned a good practice guidance to monitoring commercial fisheries project. The project is starting in November 2023 and will complete in September 2024. MD-SEDD advise that this guidance be used when available to inform monitoring methods and approaches.

The developer has also stated that “it is assumed that creel fishing may be possible within the offshore array area, and therefore, displacement during the operation and maintenance stage is likely to be very limited.” They have also stated for loss of grounds that “some changes to operating practices may be required to fish within the offshore array area, although it is expected fishing will be able to resume.” MD-SEDD advise that these statements are backed up by further justification for how fishing is presumed to be able to resume in the development post-construction. The monitoring proposed by MD-SEDD will help to verify this assumption and monitor either the resumption or displacement of fishing.

Yours sincerely,

Renewables and Ecology Team

Marine Directorate – Science, Evidence, Data and Digital

Marine Directorate – Science, Evidence, Data and Digital (Physical Processes)

Marc MacFarlane

From: Abby Gray on behalf of MD-SEDD-RE Advice
Sent: 18 December 2023 13:44
To: MD Marine Renewables
Cc: Brendan Campbell
Subject: RE: Advice Request: West of Orkney Wind Farm - Section 36 and Marine Licences Application

Categories: Saved in eRDM
Objective: -1

Good Afternoon,

I apologise for the delay. Please see MD-SEDD comments below.

2023-11-30- West of Orkney Wind Farm - Section 36 and Marine Licences Application - Physical Processes - Response Letter

https://erdm.scotland.gov.uk/documents/A46235115/details

Thanks,
Abby

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Brendan Campbell
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G2 8LU

18 December 2023

West of Orkney Wind Farm - Section 36 and Marine Licences Application

Marine Directorate advisers have reviewed the relevant documentation and has provided the following comments.

**No Comments = "We have considered the request and have no advice to provide."*

Physical environment / coastal processes

The following chapters from the West of Orkney Wind Farm EIA report have been reviewed by MD-SEDD:

- Volume 1, Chapter 8 -Marine Physical and Coastal Processes
- Volume 2, Supporting Study 3: Marine Physical and Coastal Processes Supporting Study

The EIA is in general well written, well presented and concise. The modelling approach appears to be well thought through, using a mixture of relatively simple assessments (e.g. sediment mobility) and analytical models as well as more rigorous numerical modelling approaches (e.g. for hydrodynamics, waves and sediment plume dispersal). The modelled time periods chosen were suitable, typically representing the variability over a typical 15 day spring-neap cycle. The choice of data sources were comprehensive and included a long hindcast/reanalysis hydrodynamic model data.

The applicant has chosen to perform 2D barotropic numerical tidal hydrodynamic modelling, simulating tidal water levels and depth average velocities. Given the nature of the site, which is shown to be predominately mixed with intermittent and/or weak stratification, this choice is valid. The bathymetry sources are all suitable and the model domain and grid resolution are suitable for the application. The decision to not include freshwater forcing is justified, given the low level of freshwater runoff in the region.

It would have been beneficial for ADCP data to have been gathered from within the wind farm area and water levels and current speeds compared with the hydrodynamic models. The validation using the Costa Head survey is however considered adequate. Similarly, a

validation of the wave field within the OAA (potentially using wave measurements from ADPCs) would have been beneficial.

The hydrodynamic model did not appear to include non-tidal open boundary forcing. Ideally this would have been included, but the baseline description describes the area as having very low residual transport compared to the dominant tidal component. Also the model appears to validate well against the measured water levels.

The hydrodynamic model did not appear to include any atmospheric forcing, e.g. near surface wind velocities. This is arguably more important for 3D baroclinic modelling, including the simulation of temperature and salinity, but the near surface wind velocities can influence surface flows, but the influence on depth average flows (modelled here) would probably be small. The decision to not include this forcing is therefor justified in this scenario given that "the region is characterised as well-mixed shelf waters through all seasons except summer, where weakly stratified shelf waters are recorded". In stratified regions it would be important to consider how the reduction in near surface wind speeds due to the wind farm could impact vertical wind mixing.

The differences between the modelled structures/scenarios and those in the final project design for the EIA are not deemed to be significant, and, if anything, will overestimate the potential for impact. Similarly, the decision to only model monopiles rather than jackets is also considered to be valid and simplified the modelling processes. The structures were incorporated into the numerical (hydrodynamic and wave) models by a simple blockage density within the OAA. A number of assumptions and simplifications were made on arriving at this blockage density and it would have been useful if a sensitivity analysis on how this parameter effects the flow had been performed. However, the relatively low magnitude of predicted impacts are low, the methodology is deemed to be appropriate and proportionate. There is recent evidence (e.g. Christiansen et al. 2023) that wind turbine structures can increase mixing in shelf seas, and that this is due to a combination of drag/blockage (considered in the EIA) and enhanced turbulence. That latter was not considered in the EIA and it was argues that this is due to the length scale of turbulent wakes being less than the distance between turbine foundations. Enhanced mixing has the potential to change the nature of stratification in the site. However, the EIA did include a comprehensive discussion of this topic (8.6.2.3) providing adequate evidence form previous studies suggesting that additional turbulent mixing would have a low impact on stratification in the region.

Recent studies have suggested that enhanced mixing due to structures could decrease stratification by 5 – 15% (e.g. Carpenter et al. 2016, Christiansen et al. 2023) and it would have been useful to place this variation in the context of natural variability, i.e. by examining the variability of stratification (e.g. potential energy anomaly, to surface-bottom temperature difference) form a 10-20 year model reanalysis.

References

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

Christiansen, N., Carpenter, J. R., Daewel, U., Suzuki, N., and Schrum, C. 2023. The large-scale impact of anthropogenic mixing by offshore wind turbine foundations in the shallow North Sea. Frontiers in Marine Science, 10. https://www.frontiersin.org/articles/10.3389/fmars.2023.1178330

Yours sincerely,

Renewables and Ecology Team
Marine Directorate – Science, Evidence, Data and Digital

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Marine Directorate – Science, Evidence, Data and Digital (Socioeconomics)

Marc MacFarlane

From: Inga Freimane
Sent: 27 November 2023 07:42
To: Brendan Campbell
Cc: MD Marine Renewables; Jane Renwick; Ben Walker; Amy McQueen; William Ellison; Reme Diaz; Kay Barclay
Subject: RE: West of Orkney Wind Farm - Section 36 and Marine Licences Application - Request for Written Advice - MD-SEDD - Socioeconomics - Response Requested by 20 November 2023

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Added to Tracker, Saved in eRDM
Objective: -1

Dear colleagues,

Please find attached our response to the socio-economics chapter of the West of Orkney OWF license application here: West of Orkney OWF - License application - MAU Marine Directorate socioeconomics response 27-11-2023 details - Objective ECM (scotland.gov.uk).

Many thanks,
Inga

Scottish Government
Riaghaltas na h-Alba

West of Orkney Offshore Wind Farm

Marine Analytical Unit Response
Marine Directorate

The West of Orkney Offshore Wind Farm Environmental Impact Assessment (EIA) report includes descriptions of a range of potential impacts. This response focuses only on the assessment of social and economic impacts.

Assessment of impacts

All socio-economic impacts identified during the scoping stage were assessed, including socio-cultural impacts and distributional effects that were initially scoped out during the scoping. The assessment was carried out for all stages of the project. The link to the commercial fisheries chapter and assessment of the socio-economic impacts relating to onshore is a welcome inclusion.

It was good to see a broad range of data sources consulted in the baseline section of the report. Although several of the datasets (e.g. employment, tourism) have more recent data available, justification is provided for using data from the selected period (i.e. the impact of Covid-19). The GVA analysis is presented in 2018 prices, this could be uprated to 2023 figures to provide an easier understanding of impact relative to the current economy, however the first priority here is transparency over the price year used which there is.

The baseline desktop study was supplemented with primary data collected during the consultation and engagement with industry stakeholders and local communities.

The development of different scenarios to deal with the uncertainty in the model is also a welcome inclusion.

Overall, we agree with the employed methodologies of the assessment for both social and economic impacts.

Summary of anticipated impacts

The assessment considered the following potential effects:

- Change in employment levels;
- Change in GVA levels;
- Change in demand for housing and local services;
- Change in the volume and value of tourism;
- Change in the value of onshore business activity linked to commercial fishing;
- Change in socio-cultural conditions;

- Distributional effects.

These effects were considered for the following areas:

- Caithness;
- Sutherland;
- Highland;
- Orkney;
- Scotland;
- UK.

Beneficial impacts

In terms of significance of effects, the assessment anticipated major (significant, beneficial) effects in terms of employment and GVA for Caithness and Sutherland for the construction and the M&O stages of the development.

At the scale of Highland and Orkney these effects were anticipated to be moderate (significant, beneficial) with the exception of Highland for the construction stage assessed as minor (not significant, beneficial).

The non-technical summary supplementing the application stated that modelling predicted up to (high case) an 8.3% increase in jobs and 5.6% increase in Gross Value Added in Caithness and Sutherland and 17.1% increase in jobs and 6.4% increase in Gross Value Added in Orkney.

With regards to housing and local services, it is anticipated that Orkney will experience moderate (significant, beneficial) effects during the construction and the M&O stages.

A number of embedded mitigations have been developed in order to maximise the economic and social benefits resulting from this offshore wind farm development. These include Supply Chain Development Statement initiatives as well as agreements with harbours to develop appropriate facilities, and collaborating with other developers to deliver a Local Workforce Strategy and a Local Accommodation Strategy.

Adverse impacts

Prior to embedded mitigation measures, potential adverse effects were identified on tourism, fish processing, and the commercial fishing industry, socio-cultural receptors (e.g. the potential for the project to exacerbate existing social problems such as crime) and distributional receptors (e.g. increases in inequality and reduced housing affordability).

Measures have been developed to directly address potential adverse effects, such as temporary arrangements to accommodate workers during the peak season to limit the impact on the tourist industry and promoting the use of local accommodation during the winter months. The Local Workforce Strategy is intended to increase the proportion of local area recruitment, including targeting of young people.

Embedded mitigations have also been developed to make the most of the potential benefits of the development, and increase the chance of improving the social licence to operate. This includes visitor information stops, public open days and the community benefit programme.

Regarding fisheries, a moderate significant adverse effect was identified directly through lost grounds to creeling and through displacement. The developers have stated that a cooperation agreement will be implemented as a result which will be negotiated and agreed post-consent. Unmitigated, these adverse impacts would also have consequences to the onshore fish processing industry. The effectiveness of the mitigation is dependent on the quality of the cooperation agreement, and therefore the MAU cannot comment on this whilst it is not agreed. The Minister may want to be made aware of this.

Where future monitoring of commercial fisheries is required, we advise including the knock-on socio-economic effects.

Consultation and engagement

We note that specialist economists and specialist public engagement contractors were conducting the assessment, contributing to high quality results. Particularly, extensive consultation and engagement activities described in the socio-economics chapter and a separate stakeholder engagement chapter deserve praise.

Primary data was collected from local communities through questionnaire and results were incorporated into the assessment. This is a novel approach to the EIA and is highly encouraged, as it allows industry stakeholders and local communities to be involved in the assessment.

Local stakeholders represented in the Socio-Economic Working Group (SEWG) played a role in final decisions concerning sensitivity of receptors.

Consultation activities included a range of stakeholders, including local healthcare and education providers, showing the developer's commitment to conduct an extensive and meaningful assessment and incorporate local communities' voice into the assessment.

Monitoring and mitigation

The EIA report highlights that potential beneficial and adverse effects of the development have been discussed with stakeholders.

We note the embedded mitigation measures, such as the Supply Chain Development Statement (SCDS) commitments.

It is encouraging to see that the SEWG (or equivalent) will continue working post-consent and will inform the implementation of the SCDS and the development of the community benefit fund.

Monitoring arrangements could have been described in fuller detail. For example, key performance indicators or time intervals for monitoring could have been considered. It is important to set out monitoring approaches at the outset of the project.

Summary

Overall, the assessment of socio-economic impacts is conducted to a high standard and as such we are confident that not only the results are relatively robust, but also that the embedded mitigations have been designed in collaboration with representatives of those affected (via the Socio-Economic Working Group) and should therefore be as effective as is possible at this stage in the process. This is on the basis of the information presented in the Chapter.

Maritime and Coastguard Agency

Marc MacFarlane

From: Nick Salter <Nick.Salter@mcga.gov.uk>
Sent: 01 February 2024 08:13
To: MD Marine Renewables; Brendan Campbell
Cc: Vaughan Jackson; Pete Lowson; Samantha Westwood
Subject: RE: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Attachments: West of Orkney s.42 and ML app response_v2.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Brendan,

Please find attached an amended version of our response with a correction to the emergency response section – I erroneously entered a different developer name.

Best regards

Nick

Nick Salter
Offshore Renewables Lead
UK Technical Services Navigation

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Marine Directorate - Marine Renewables
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By email to: MD.MarineRenewables@gov.scot

5 December 2023

Dear Sir/Madam

APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED), MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND MARINE AND COASTAL ACCESS ACT 2009 TO CONSTRUCT AND OPERATE THE WEST OF ORKNEY WINDFARM, LOCATED APPROXIMATELY 23 KILOMETRES ("KM") NORTH OF THE CAITHNESS COAST AND 28KM WEST OF HOY, ORKNEY.

The MCA's remit for Offshore Renewable Energy Installations (OREIs) is to ensure that the safety of navigation is preserved, and our Search and Rescue (SAR) capability is maintained, whilst progress is made towards government targets for renewable energy. The Navigation Risk Assessment (NRA), the shipping and navigation chapter of the Environmental Impact Report have been reviewed and we would like to comment as follows:

Volume 1, Chapter 15 – Shipping and Navigation
Volume 2, Supporting Study 14: Navigation Risk Assessment

Offshore Wind Power Limited has undertaken a detailed Navigation Risk Assessment (NRA) in accordance with MCA guidance MGN (Marine Guidance Note) 654 and NRA risk assessment methodology. We are satisfied that appropriate traffic data was collected in accordance with MGN 654, which included two 14-day marine vessel traffic surveys of the generating assets area in August 2022 and November 2022, and two 14-day AIS-only data collection of the export cable corridor during the same months. These are supported by 12 months of AIS data from 2021. Key and appropriate stakeholders were identified, and the MCA is content that suitable consultation took place via a hazard identification workshop and dedicated meetings. A completed MGN 654 Checklist has been provided as part of the NRA, and we are content the recommended NRA process has been followed.

The NRA identified one unacceptable risk which is for the displacement of commercial vessels in adverse weather during the operational phase. It recommends that "*Further consideration [is] required of proximity to Sule Skerry*". Section 18.3.4.1 in the NRA recognises that the risks of adverse weather routeing in the operation phase is analogous to the construction phase, however the hazard log does not identify an unacceptable risk for displacement in adverse weather during the construction and decommissioning phases. Table 15-14 in Chapter 15 of the EIAR (Summary of potential effects) appears to recognise the unacceptable risk identified in the NRA where it states that the risk for vessel (commercial, fishing and recreation) displacement during adverse weather in the construction and maintenance phases is "*Tolerable and ALARP*" and "*not significant*". It states that the additional risk control of a Development Specification and Layout Plan (DSLP) will reduce the risk to a Tolerable level, however a turbine layout plan will not impact displacement since vessels will divert around Sule Skerry. Furthermore, a DSLP is identified as an embedded mitigation

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measure in section 15.6.1.1.1 and to include additional consultation to discuss the DSLP as an additional mitigation measure is not an appropriate control for reducing the risk. We conclude that the sea space between Sule Skerry and the RLB is not a safe navigable route and vessels will indeed divert to the north of the Skerry Bank in safer waters.

Shipping and Navigation Mitigation Measures
The list of embedded risk controls in Table 17.1 of the NRA and Table 15-12 of the Shipping and navigation EIAR Chapter is appropriate and we will expect them to be included in the post-consent documentation plans.

Layout Design (DSLP)
The turbine layout design must be compliant with MGN 654 and it will require MCA and NLB approval prior to construction to minimise the risks to surface vessels, including rescue boats, and search and rescue aircraft operating within the site. MCA will seek to ensure all structures are aligned in straight rows and columns with a minimum of two lines of orientation. Further advice will be provided to the project once the layout discussions have started.

Marking and Lighting
MCA will seek to ensure the turbine numbering system follows a 'spreadsheet' principle and is consistent with other windfarms in the UK. All lighting and marking arrangements will need to be agreed with MCA and Trinity House. The MCA requires all aviation lighting to be visible 360° and compatible with night vision imaging systems, as detailed in CAP 764 and MGN 654 Annex 5.

Emergency Response and Search and Rescue
There is an expectation that the presence of wind farms will increase the likelihood of the requirement for emergency response, not just from navigational incidents but from other incidents such as medical evacuation or pollution. A SAR checklist based on the requirements in MGN 654 Annex 5 will need to be completed in agreement with MCA before construction starts. This will include the requirement for an approved Emergency Response Co-operation Plan (ERCoP).

The NRA outlines the most likely incidents which may result in a required emergency response though does not fully consider the additional demand likely caused by the presence of personnel offshore, as has been experienced from some other windfarms of comparable size. Since the operations and maintenance strategy is not yet clear or the type of vessels utilised (e.g. crew transfer vessels or service operations vessels), it is difficult to determine what resource and capability will be on site and what the availability of this will be. Furthermore, there may be situations requiring a SAR response where project vessels are unavailable due to weather or crew rotation etc. It should be noted that the presence of a windfarm diminishes the SAR capability and even with an MGN 654 compliant layout, there are still no guarantees of an effective SAR response and therefore consideration should be given as to how the windfarm will mitigate this reduction.

During SAR discussions, particular consideration will need to be given to the implications of the site size and location. Attention should be paid to 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)) that can cover the entire wind farm sites and their surrounding areas. It will be expected that Offshore Wind Power Ltd will provide this AIS and VHF capability to the MCA with direct access to HM Coastguard systems.

Construction scenarios
We would expect to see some form of linear progression of the construction programme avoiding disparate construction sites across the development area, and the consent needs to include the requirement for an agreed construction plan to be in place ahead of any works commencing.

Consideration of the construction buoys locations will be needed to ensure that tankers can safely transit through the gap between the buoyage and the Area To Be Avoided.

Cable Routes
Export cable routes, cable burial protection index and cable protection are issues that are yet to be fully developed. However due cognisance needs to address cable burial and protection, particularly close to shore where impacts on navigable water depth may become significant. Any consented cable protection works must ensure existing and future safe navigation is not compromised. It is noted the export cable will be High Voltage Alternate Current (HVAC) which is expected to have no impact on electro-magnetic fields and ships' magnetic compasses.

Safety Zones
The requirement and use of safety zones as detailed in the application is noted, and MCA will comment on the safety zone application once submitted, as a statutory consultee. Safety zones during the construction, maintenance and decommissioning phases are supported. A detailed justification would be required for a 50m operational safety zone, with significant evidence from the construction phase in addition to the baseline NRA required supporting the case. Safety zones triggered by a Service Operation Vessel connecting to a wind turbine will not be supported.

Hydrographic Surveys
MGN 654 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 and the UKHO. Further information can be found in MGN 654 Annex 4 supporting document titled 'Hydrographic Guidelines for Offshore Developers', available on our website: www.gov.uk/guidance/offshore-renewable-energy-installations-impact-on-shipping

The comments detailed above are not considered to be blocks to development, but they are provided to highlight areas of concern. Subject to the applicant meeting requirements addressed in this letter, and meeting licence conditions, it provides a cautious acceptance of the application for consent.

Yours faithfully,

[Redacted]

[Redacted]

Nick Salter
Offshore Renewables Lead
UK Technical Services Navigation

Peter Lowson
Offshore Energy Liaison Officer
HM Coastguard Governance, Policy, Standards and International

Ministry of Defence

Marc MacFarlane

From: Kaye.Noble106@mod.gov.uk <Kaye.Noble106@mod.gov.uk>
Sent: Friday, February 2, 2024 3:35 PM
To: Brendan Campbell <brendan.campbell@gov.scot>
Subject: 20240202_MOD_Response_West_of_Orkney_Offshore_Windfarm

Good Afternoon

Please accept my apologies for the delay, I have attached the MOD response to the S36 application for the West of Orkney Windfarm.

Kind Regards,

Kaye Noble
Assistant Safeguarding Manager
DIO Safeguarding
St George's House| Defence Infrastructure Organisation Head Office |
DMS Whittington | Lichfield | Staffordshire | WS14 9PY

Skype: 03001663420
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Website: www.gov.uk/dio/
Twitter: @mod_dio
Read DIO's blog http://insidedio.blog.gov.uk/

Defence Infrastructure Organisation

Kaye Noble
Assistant Safeguarding Manager
Ministry of Defence
Safeguarding
Defence Infrastructure Organisation
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Telephone: [Redacted]
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Application Ref:

Our Reference: DIO 10055093

Brendan Campbell
Licensing Operations Team
Marine Directorate
Scottish Government
5 Atlantic Quay
150 Broomielaw
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G2 8LU

29 January 2024

Dear Brendan,

APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED), MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND MARINE AND COASTAL ACCESS ACT 2009 TO CONSTRUCT AND OPERATE THE WEST OF ORKNEY WINDFARM, LOCATED APPROXIMATELY 23 KILOMETRES ("KM") NORTH OF THE CAITHNESS COAST AND 28KM WEST OF HOY, ORKNEY.

I write to confirm the safeguarding position of the Ministry of Defence (MOD) in relation to the above Section 36 application to construct and operate the West of Orkney offshore wind farm.

This scheme will comprise of up to 125 wind turbines, up to 359.20m in height (to blade tip) that will be located approximately 23km north of the Caithness Coast and 28km west of Hoy, Orkney. In addition to the turbine structures there will be up to 5 offshore platforms, up to 5 offshore export cables, inter-array and interconnector cabling and other associated infrastructure. The onshore element of the project includes up to 5 onshore export cables laid in separate trenches, onshore substation and temporary construction compounds and access tracks.

In relation to the onshore element of the proposed development, the potential routes identified for the installation of the export cable and the locations identified for the development of new infrastructure will not occupy any MOD statutory safeguarding zones.

In order to maintain defence navigational interests, the MOD requires a condition that necessitates the submission and approval of information detailing the routing, specific locations, and installation method for all offshore export cables. Suggested condition wordings are set out in Appendix A.

The MOD has assessed the location and layout of the offshore element of the development scheme proposed. The scheme outlined will not physically impact upon MOD offshore Danger and Exercise

Areas or adversely affect defence maritime navigational interests. However, in this case the development falls within Low Flying Area 14 (LFA 14), an area within which fixed wing aircraft may operate as low as 250 feet or 76.2 metres above ground level to conduct low level flight training. The addition of turbines and other tall ancillary offshore structures in this location has the potential to introduce a physical obstruction to low flying aircraft operating in the area.

To address this impact, and given the location and scale of the development, the MOD require conditions are added to any consent issued requiring that the development is fitted with aviation safety lighting and that sufficient data is submitted to ensure that structures can be accurately charted to allow deconfliction. Suggested condition wordings are set out in Appendix A.

As a minimum the MOD would require that the development be fitted with MOD accredited aviation safety lighting in accordance with the Air Navigation Order 2016. It is likely that the CAA specified lighting will exceed that required by the MOD but to ensure the safeguarding of any low flying/rotary military aircraft, the MOD would request the wind farm is lit with no less than 25cd visible or infra-red (IR) lighting on perimeter turbines.

I can confirm that subject to the inclusion of the requirements contained at Appendix A, in any DCO that may be granted for this proposed development, the MOD maintains no objections to this application.

I trust this adequately explains our position on this matter.

Yours faithfully,

[Redacted]

Kaye Noble
Assistant Safeguarding Manager
DIO Safeguarding

(Appendix A Enclosed)

Appendix A

Condition – Cable Routing
There shall be no Commencement of Development unless or until full details of the routing, infrastructure locations, and method of installation for all offshore export cables have been submitted to and approved in writing by Scottish Ministers in consultation with the Ministry of Defence. The development shall be carried out strictly in accordance with the details approved and there shall be no departure from those approved details without the express written approval of Scottish Ministers in consultation with the Ministry of Defence.

Reason:
To maintain defence navigational interests.

Condition - Aviation Lighting
Prior to commencing construction of any wind turbine generators, or deploying any construction equipment or temporal structure(s) 50 metres or more in height (above mean sea level) the undertaker must submit an aviation lighting scheme for the approval of Scottish Ministers in conjunction with the Ministry of Defence defining how the development will be lit throughout its life to maintain civil and military aviation safety requirements as determined necessary for aviation safety by the Ministry of Defence.

This should set out:

a) details of any construction equipment and temporal structures with a total height of 50 metres or greater (above ground level) that will be deployed during the construction of wind turbine generators and details of any aviation warning lighting that they will be fitted with; and
b) the locations and heights of all wind turbine generators and any anemometry mast featured in the development identifying those that will be fitted with aviation warning lighting identifying the position of the lights on the wind turbine generators; the type(s) of lights that will be fitted and the performance specification(s) of the lighting type(s) to be used.

Thereafter, the undertaker must exhibit such lights as detailed in the approved aviation lighting scheme. The lighting installed will remain operational for the lifetime of the development.

Reason:
To maintain aviation safety.

Condition - Aviation Charting and Safety Management
The undertaker must notify the Ministry of Defence, at least 14 days prior to the commencement of the works, in writing of the following information:

a) the date of the commencement of the erection of wind turbine generators;
b) the maximum height of any construction equipment to be used in the erection of the wind turbines;
c) the date any wind turbine generators are brought into use;
d) the latitude and longitude and maximum heights of each wind turbine generator, and any anemometer mast(s).

The Ministry of Defence must be notified of any changes to the information supplied in accordance with these requirements and of the completion of the construction of the development.

Reason:
To maintain aviation safety.

National Air Traffic Services

Marc MacFarlane

From: NATS Safeguarding <NATSSafeguarding@nats.co.uk>
Sent: 03 October 2023 10:16
To: Brendan Campbell; MD Marine Renewables
Cc: Ben Walker; Jane Renwick
Subject: RE: [SG33004] West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023 [SG33004]

Our Ref: SG33004

Dear Sir/Madam

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours faithfully

NATS Safeguarding

E: natssafeguarding@nats.co.uk

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

NATS Public

NatureScot

Marc MacFarlane

From: Kim McEwen <Kim.McEwen@nature.scot>
Sent: 13 December 2023 11:04
To: MD Marine Renewables
Cc: Brendan Campbell; Ben Walker; Jane Renwick; Karen Taylor
Subject: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - NatureScot response
Attachments: 2023 12 13 - West of Orkney - N1 - Application - NatureScot Advice.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Objective: -1

Dear Brendan,

Thank you for consulting NatureScot on the West of Orkney Windfarm Section 36 and Marine Licence applications – please see our response attached. We also wish to thank you for granting us an extension.

We hope this is of assistance.

Kind regards,
Kim

Kim McEwen | Marine Sustainability Adviser
NatureScot | Eastbank | East Road | Kirkwall | KW15 1LX | **t:** 01463 701 671
NàdarAlba | Bruach an Ear | Rathad an Ear | Kirkwall | KW15 1LX
nature.scot – Scotland's Nature Agency – Buidheann Nàdair na h-Alba - @nature_scot

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

Brendan Campbell
Scottish Government
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

13 December 2023

Our ref: CNS REN OSWF ScotWind - N1 - Offshore Wind Power Limited - West of Orkney

Dear Brendan,

WEST OF ORKNEY WINDFARM - OFFSHORE WIND POWER LIMITED

APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED) AND MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND MARINE AND COASTAL ACCESS ACT 2009

Thank you for consulting NatureScot on the Section 36 and Marine Licence applications submitted by Offshore Wind Power Limited (the applicant) for the proposed West of Orkney Windfarm. These are accompanied by an Environmental Impact Assessment Report (EIA Report), Report to Inform Appropriate Assessment (RIAA) and a Derogation Case (without prejudice).

Our advice in this letter is in relation to the offshore Project Option Agreement Area (OAA), the Export Cable Corridor (ECC) and landfall (up to MHWS only), as the onshore components are subject to a separate application.

Policy context

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

As a statutory consultee, NatureScot works in support of the Scottish Government's vision for a Blue Economy with its six outcomes acting as focal points to ensure the marine environment supports ecosystem health, improved livelihoods, economic prosperity, social inclusion and wellbeing. We provide advice in the spirit of Scottish Government's ambition and its aims to balance the promotion of the sustainable development of offshore wind, whilst protecting and restoring our biodiversity.

Proposal

The proposed development is sited within Plan Option Area N1[1]. The wind farm array area is located approximately 28 km west of Hoy, Orkney and 23 km north of Strathy Point, Caithness and covers 657 km^2. The offshore ECC up to MHWS covers an area of 125 km^2 and arrives at two landfall options on the north coast of Caithness at Greeny Geo and / or Crosskirk.

The proposal, which includes a project design envelope approach, comprises:

- Up to 125 fixed bottom Wind Turbine Generators (WTGs), installed on either monopile, piled jacket or suction bucket jacket foundations;
- A maximum rotor blade tip height of 359.52 m; maximum rotor blade diameter of 330 m and a minimum rotor blade tip to sea clearance of 29.52 m (measured from Lowest Astronomical Tide (LAT));
- Up to five Offshore Substation Platforms (OSPs) with either piled jacket or suction bucket jacket foundations;
- Up to 140 inter-array cables with a total length of up to 500 km and up to five export cables with a total maximum length of up to 320 km;
- Scour and cable protection; and
- An installed capacity of up to 2 Gigawatts (GW) with an anticipated operational life of 30 years.

Within the Scoping Report, Offshore Wind Power Limited identified they are also considering an additional export cable to provide power to the proposed Flotta Hydrogen Hub. However, this cable will be subject to separate offshore and onshore applications and does not form part of these applications.

Background

The ScotWind Leasing Round was launched in June 2020 and has resulted in 20 projects being awarded leases with the potential energy generation of 27.6 GW. The proposed West of Orkney Windfarm is the first of the ScotWind developments to submit applications for consent.

Leading up to and following submission of the West of Orkney Windfarm Scoping Report in March 2022, we highlighted concerns over the level of detail and broad project design envelope likely to be presented for assessment at application stage. As expected the lack of detail on project design and assessment methodologies necessitated a high level of post scoping engagement to discuss and agree methods. We are particularly disappointed that much of the advice given post scoping has not been included or considered within the EIA Report.

NatureScot advice

Despite the considerable advice provided during post scoping engagement, we are extremely disappointed to receive an application of such poor quality. Overall this means that we have no confidence in either the assessment or conclusions presented by the applicant. This is based on the following fundamental issues:

- The primary ornithological impact assessment does not follow NatureScot guidance nor is it in accordance with advice provided at pre-application and therefore has resulted in an incomplete and incorrect assessment;

[1] https://www.gov.scot/publications/sectoral-marine-plan-offshore-wind-energy/

- The volume and propagation of errors combined with a lack of transparency throughout the ornithological assessment and therefore we have no confidence in the predicted impacts;
- The use of an unrealistic worst case scenario in the assessment of seascape, landscape and visual impacts in addition to insufficient consideration of mitigation and therefore has resulted in an assessment with predicted adverse impacts that are unrealistic.

For these reasons, we object to this proposal until further information and assessment is obtained from the applicant, comprising but not limited to**:**

- A complete re-assessment of the offshore ornithology interest;
- A complete re-assessment of seascape, landscape and visual interests;

In addition to the above, we require:

- Further information with respect to marine mammals, benthic as well as fish and shellfish before we can provide further advice on these receptors.

To help facilitate this, we provide advice in the following appendices that focusses on our fundamental concerns and what we require to address these, caveating that despite a thorough review of the EIA Report / RIAA, there may be other issues that we have not identified:

- Advice on Offshore Ornithology is provided in **Appendix A;**
- Advice on Seascape, Landscape and Visual Impact Assessment (SLVIA) is provided in **Appendix B;**
- Advice on other receptors (marine mammals, benthic, fish (excluding diadromous) and shellfish) is provided in **Appendix C.**

Despite the failings of the assessment provided by the applicant, we have reviewed the derogation case and provide advice in **Appendix D**.

We provide advice in **Appendix E** that addresses the quality and standard of application documentation required by NatureScot to avoid timely delays to the consideration and determination of future applications.

Please note, we have not undertaken any assessment or provided advice on the Marine Physical and Coastal Processes or Diadromous Fish receptors.

Further information and advice

We hope this advice is helpful. Please contact Kim McEwen (kim.mcewen@nature.scot / 01463 701 671) or Karen Taylor (karen.taylor@nature.scot / 0131 316 2693) in the first instance for any further advice.

Yours sincerely,
[Redacted]

Nick Halfhide
Director of Nature and Climate Change

APPENDIX A - WEST OF ORKNEY WINDFARM – OFFSHORE ORNITHOLOGY

The ornithology assessment is provided in Chapter 13, Supporting Study 12 and associated Annexes 12.1 to 12.13 and Report to Inform the Appropriate Assessment (RIAA) with associated Appendices (A-F).

NatureScot interim advice

The assessment is not of sufficient quality for us to have any confidence in the process or its conclusions. As such, we cannot come to a view on the significance of the predicted effects to ornithological interests either under EIA or HRA.

In reviewing each stage of the assessment we have documented the errors / issues that we have been able to identify. There are many instances where we have not understood what the applicant has done despite spending significant time reviewing the assessment or where we have found so many errors that we are unable to trust the assessment provided. Nor are we confident that we have catalogued every error.

The entire ornithological assessment therefore needs to be completely revisited and must be based on the assessment approach as provided in NatureScot Guidance Notes[2].

To help facilitate this we have provided an overview of the issues and errors encountered (see Headlines) together with specific examples (see Examples). These examples are provided to evidence why we have concluded that the assessment is not of sufficient quality and requires re-assessment. In addition, we provide a summary of our requirements which must be addressed before we can provide further advice (see Next Steps below).

Headlines

A summary of the issues and errors we have identified in the ornithological assessment provided is outlined below:

- The assessment is predicated on the applicant's approach and does not follow NatureScot guidance as directed within the Scoping Opinion or thereafter through advice provided during pre-application.
- The assessment of distributional responses required by NatureScot as per our published guidance is provided as an *alternative approach*, located in Annex 12-13, as a series of tables with insufficient explanatory or accompanying text.
- The scale and range of errors identified throughout the entire assessment are many and fundamental.
- The lack of transparency throughout each stage of the assessment means that values cannot be replicated or tracked through the process.
- This propagation of errors through each stage of the assessment means we have no confidence in the outputs both across each stage and at the end of the process.

[2] https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/renewable-energy/marine-renewables/advice-marine-renewables-development

- The EIA and RIAA are based on different ornithological assessment approaches resulting in inconsistency and comparability issues.
- The structure and format of Chapter 13, Supporting Study 12 and associated Annexes 12.1 to 12.13 is such that necessary cross referencing is extremely challenging and time consuming. The flow of information between and across these documents is incredibly difficult to navigate without hyperlinks or other aids.
- The full Digital Aerial Survey (DAS) methodology and resulting baseline characterisation report for birds is missing.
- Information on model and tool versions as well as access dates are not provided.
- The number and length of many of the submission documents is concerning. For example, the scale of this project and likelihood of impacts to a smaller number of species and SPAs has still resulted in the RIAA having double the number of pages compared to other projects that are considerably more complex in impact and greater in scale.
- References are missing and / or incorrect.

Examples

For each stage of the assessment process, we provide specific examples of the issues and errors encountered by NatureScot to help facilitate the re-assessment process. This list is not exhaustive.

<u>Baseline</u>

Baseline characterisation (Annex 12.11)

We expect the production of a DAS report based on two full years of data - this has not been provided. Instead, raw count data is provided in Annex 12.11 without any accompanying narrative or context. The omission of this information, prevents verification of input values and compounds the transparency issues referred to below.

HRA screening

We raised concerns during the pre-application process that the generation of the initial long list was confusing and did not indicate on what basis each site / feature has been included, which made evaluation difficult. Without the complete DAS report we are unable to confirm definitively whether any sites / features have been missed. From our review of the RIAA we note that disturbance from vessel movement has not been adequately considered. This impact pathway will cover construction and operation / maintenance activities and, while we understand that agreements have not yet been reached with individual Ports, we are concerned that North Orkney and Scapa Flow marine SPAs have been prematurely screened out – this concern was also raised during pre-application.

<u>Predicted effects from key impact pathways</u>

Collision risk assessment (Supporting Study 12 includes annexes)

A clear, explicit methodology and audit trail has not been provided for the collision assessment which prevents replication to verify how input values have been derived or understand which input parameters have been selected. This has led to a fundamental lack of confidence in the

modelled output values which undermines the next stage of the assessment. This includes, but is not limited to:

- No information is provided on which version of the sCRM model has been used (or when) – this relates to the use of Caneco et al. 2022 which supersedes MacGregor et al. 2018 and whether or not the updates to Caneco have been used.
- It is not clear how density estimates taken forward into collision risk modelling have been derived. Annexes 12.1, 12.2 and 12.4 of Volume 2 - Supporting Study 12 each presents density estimates in slightly different ways; a summary table is then provided in Annex 12.5 of those density values taken forward for use in the CRMs. However insufficient detail is provided in Annex 12 (section 3.1.1 - estimates per survey) to replicate or verify how the values have been derived, and without the full DAS / characterisation report, we have not been able to find the values used in the design based calculation as referred to in paragraph 17 (Supporting Study 12).
- Avoidance rates from Ozsanlev-Harris et al. 2023 have been used, however for certain species e.g. kittiwake, there are a number of different rates that could be used (e.g. kittiwake, all gull, small gull or large gull). There is a lack of transparency as to which avoidance rate has been used for each species. We require avoidance rates to follow our guidance.
- References have not been provided for all parameters, such as nocturnal activity for example or are erroneous e.g. wing span and body length for great skua do not match the reference provided.
- Mean density estimates are provided in Tables 4 and 5 in Annex 12.8 (Seabirds and highly pathogenic avian influenza) for gannet (in flight) with and without data from August and September 2022 - months known to overlap with HPAI-related mortality. For great skua, Figure 12 provides an overview of dead / alive birds per survey. Other than the passing reference made in paragraph 113 (Annex 12.8), it is not clear how HPAI-related effects have been addressed elsewhere in the assessment including use or not of the densities provided in Annex 12.8 – see next steps below.
- A significant proportion of the tables in Annexes 12.1, 12.2 or 12.4 of Supporting Study 12 comprises entirely of row after row of zeros – these could have been structured and formatted in a more useful manner.

Collison risk assessment (Chapter 13)

There are errors and inconsistencies throughout Chapter 13. This includes but is not limited to:

- Despite pre-application advice, as referred to in Table 13-4, CRM outputs are only provided for the worst case scenario - the most likely scenario has been omitted.
- Table 13-10 in section 13.4.6 provides a summary of species at risk of collision during operation. This list of species is incorrect - puffin, guillemot, razorbill and fulmar were not taken forward for CRM.

Assessment of distributional responses (Annex 12.13)

The assessment of distributional responses (displacement and barrier effects) expected by NatureScot, has been provided in Annex 12.13 of the Supporting Study as a series of Tables with insufficient accompanying narrative and has been labelled as an 'alternative approach'. This is contrary to advice directed by the Scoping Opinion and provided during the pre-application process.

As this is our expected approach we have reviewed Annex 12.13 but the volume of errors / transparency issues is such that we have no confidence in any of the outputs provided. Examples include, but are not limited to:

- The peak month description in section 1 are incorrect in Tables 1-10 and 1-12.
- Section 1.3 provides the displacement matrix values for each individual species in Tables 1-15 to 1-27. These do not match the corresponding values provided in summary Table 1-28 in section 1.4. The next stage of the assessment, which uses these values, is undermined if these are incorrect.
- Section 2 deals with predicted impacts on adult survival, however there is insufficient transparency such that we cannot replicate the values provided in Table 2-1. This concerns predicted impacts for project alone effects for kittiwake, guillemot, razorbill, puffin and gannet; as well as in-combination values for kittiwake and puffin. As the change in adult survival values from Table 2-1 are used in the next stage of the assessment as PVA input parameters, as per Table 3-3, the propagation of errors continues to build and results in a lack of confidence in the predicted population level effects for this impact pathway.
- Direct comparison with the applicant's assessment approach, as provided in Chapter 13, is challenging in light of these errors as well as the difficulties in being able to cross compare easily between the two approaches.

Assessment of distributional responses (Chapter 13)

The applicant has undertaken a different approach to estimating the mean seasonal peak (described in section 13.4.4.5.3) than the approach advised by NatureScot. This is despite advice provided at pre-application (emailed dated 07/07/2023) indicating:

- ''Data should be provided in a format that allows the calculation of mean seasonal peak population estimates based on the minimum two years of baseline data. For example, for a species with a breeding season from April to July, this requires the average of the peak population estimates between April and July in year one and two. This may require the counts to originate from different months in the two years (e.g. May in the first year and June in the second year). In practice, this requires comparable monthly abundance estimates for each year of survey. This allows for year-to-year variation in the precise time (and magnitude) of peak abundance estimates to be taken into account in arriving at a mean peak population estimate. To allow recalculation of values, good practice requires presentation of monthly values in summary and full data from all surveys in an appendix to any report.''

The use of a peak value from a partially surveyed season, as undertaken by the applicant, risks that the true seasonal peak may occur within the period that has not been surveyed.

Apportioning predicted impacts

Apportioning (RIAA)

The apportioning of breeding season impact to each SPA / qualifying feature is outlined in the RIAA via three steps reflected in Table 6-13 and Table 6-14 (section 6.7.6) and thereafter in Tables A1-1 to A1-8 and Tables A2-1 to A2-19 in Appendix A. This process is fundamental to understanding the level of impact to each site and species.

We have identified significant errors and transparency issues within these Tables, and most notably in Table 6-14, a key stage of the apportioning process, where a sequence of calculations are needed to determine values for predicted impacts to all SPAs. These values are then used to estimate the SPA specific predicted impact on each qualifying feature. The errors identified adds to our lack of confidence in the assessment conclusion. For example, but not limited to:

- The values for 'total predicted impacts on adults' in Table 6-14 are incorrect for most species as sabbaticals have not been removed at the required step. Interestingly, we note for the next stage in this table, in which the 'predicted impacts to all SPAs' are calculated, the correct values have been used. Such inconsistences within the table make it difficult to follow, interpret and agree with the data provided.
- For guillemot, we cannot track the values through the apportioning process set out in Table 6-14, in particular how the 'total predicted impact on adults' values have been derived and as such believe these are incorrect.
- There are also inconsistencies across Table 6-14 in the use of decimal place and rounding up.
- No reference for sabbatical rate used for great skua has been provided.

Population modelling

PVA (RIAA & Annex 12-13)

The 50 year metric has been omitted from the application submission documents despite advice provided during the pre-application stage of the need to include this time period. Instead PVA metrics are provided in Annex 12.13 from years 10 to 35, in ten year increments to 30 years and a five year increment to 35 years. These are drawn across into the RIAA. Our guidance note indicates that PVA outputs for 25 years, the period of lease applied for (if different) and 50 years should be provided.

There are multiple examples of errors and transparency issues in predicted impacts and estimated changes in adult survival in the RIAA. These include but are not limited to:

- For guillemot at Sule Skerry & Sule Stack SPA (section 6.20.3.1 / Appendix C) – the change in adult survival rates for in-combination effects does not appear to correlate with the additional impact from other projects.
- For puffin at Sule Skerry & Sule Stack SPA (section 6.20.3.2 / Appendix C) – there are inconsistencies in the values for predicted impacts on breeding adults presented in the Tables in Appendices A and C.

- For great black-backed gull at East Caithness Cliffs SPA (section 6.11.3.2 / Appendix C) – we note that the metric CPS in-combination value is extremely low. We have been unable to track impacts predicted for in-combination or replicate the predicted change in adult survival.
- For kittiwake at Calf of Eday SPA (section 6.3.8.1 / Appendix C) – there are inconsistencies in the predicted impacts for project alone effects between the narrative in this section and the tables in Appendices A and C.

With respect to Annex 12-13 these include, but are not limited to:

- There are inconsistencies across Tables 3-4, 3-5, 3-7 and 3.8 - the Counter Factual for Population Size (CPS) for a 'Low' scenario is lower than for the 'High' scenario, even though the number of birds impacted in the 'High' scenario is greater.

-

- Those errors / transparency issues noted in the sections above continue to undermine our confidence in the PVA outputs.

<u>Conclusions presented by the applicant</u>

As noted above, we are unable to provide a view on the significance of the predicted effects to ornithological interests either under EIA or HRA because of the scale and nature of the errors and transparency issues encountered, as well as the approach which does not follow our endorsed guidance. Examples include but are not limited to:

- We do not agree how the applicant has chosen to consider impacts as *de minimis* and how this approach has been applied throughout sections 6.8 – 6.22 of the RIAA.
- The conclusions presented within Table 6-74 (section 6.22) of the RIAA are not consistent with the results of the assessment for individual SPAs.

<u>Further evidence provided by the applicant</u>

Section 6.22.1 of the RIAA presents further evidence not used in the assessment that the applicant considers to be relevant. It is disappointing that this was not discussed during the pre-application stage where it could have been explored in greater detail and agreement reached as to the applicability or otherwise for assessment of impacts to marine birds in Scotland.

The *pick and mix* assessment approach undertaken by the applicant is contrary to our suite of published guidance. We consider all new and emerging evidence as it comes forward - to review the context of such studies against current thinking and update our guidance accordingly to ensure we have a consistent standardised approach in Scotland. **This may be different to approaches used in England or elsewhere in the UK for specific reasons.**

Not all of the evidence presented in section 6.22.1 has been reviewed and / or accepted by NatureScot for inclusion within the ornithological assessment process for wind farm development in Scotland. Our comments are outlined below:

Baseline

- Use of tracking data to inform decisions around connectivity must be agreed during the HRA screening. The evidence presented in section 6.22.1.1 was not agreed during the pre-application stage.

- With reference to Vallejo et al. 2017, we advised during pre-application that this study was in relation to the Robin Rigg wind farm in the Solway Firth, which is very different in both scale and location to the proposed West of Orkney Windfarm development. In addition, as acknowledged by the authors, there were some limitations to the study. Approaches to marine ornithology survey and analyses have evolved substantially in the interim; as such we would not consider this study in isolation as applying more generally to potential displacement of common guillemots by offshore wind farms.

Emerging evidence

- Section 6.22.1.2 advocates for the use of the Ozsanlev-Harris et al (2023) avoidance rates and queries why our guidance has not been updated to reflect these. Our guidance will be updated shortly. The difference between the two versions is down to the fourth decimal place. Please note we have not been able to verify the CRM outputs presented in Tables 6-79.
- The update to our guidance will also include our position on macro-avoidance for gannet, which the applicant advocates for (based on Pavat et al. 2023), noting that we are concerned, due to the small sample size as well as the location of the study wind farms (i.e. at some distance from colony SPAs), that the underlying studies are unlikely to be sufficiently representative. Particularly with respect to variation in seasonality, notably breeding season behaviour. We also note Lane et al. (2020) indicated gannet trip duration and distance varies seasonally, with marked differences during chick rearing, which could impact the number of birds in contact with offshore wind farm developments.

Assessment tools

- SeabORD considers consequences to both adult mortality and productivity, and allows for some quantification of uncertainty. The number of colonies which SeabORD can run simultaneously will depend on the version used. Updates to SeabORD through the Cumulative Effects Framework will address this constraint. As advised during pre-application, we understand that Vallejo et al. 2022 is being peer reviewed – until this is complete we reserve comment on the issues raised in this paper.
- We support the need for an update to BDMPS.

Next steps

We expect the following elements to be addressed within any revised assessment before we can provide final advice:

- The primary ornithological assessment must be based on the approaches described within our published suite of guidance notes.
- In addition to this guidance, we provided further specific advice post scoping during the pre-application phase. We expect this to be followed.
- Any changes to assessment approaches or tools since the previously agreed project cut-off must be discussed and agreed with NatureScot in advance of resubmission.

- The presentation of the assessment should be transparent with a clear audit trail and narrative that enables any output values from specific tools / steps to be tracked through each stage of the assessment.
- The entire ornithological assessment should be checked for errors to ensure that all output values are correct for each stage of the assessment.
- The DAS surveys and report should be provided and used to inform the HRA screening process.
- We require agreement in advance as to how HPAI-related impacts are to be addressed within the revisited assessment.
- All references should be checked and information on model versions must be included.
- The structure, layout and flow of information between documents needs to be revised and must include the provision of suitable navigational aids to speed up cross-referencing.
- Should the applicant wish to include any alternatives from our assessment approach, this must be discussed and agreed in advance with us including how this information is to be presented to enable clear comparisons between approaches (where this is appropriate).

With respect to the assessment of cumulative effects for fulmar (Chapter 13, section 13.7.1) – please note, we are still considering how fulmar should be assessed cumulatively as part of the ScotWind / INTOG sites.

APPENDIX B - WEST OF ORKNEY WINDFARM - SEASCAPE, LANDSCAPE AND VISUAL IMPACT ASSESSMENT (SLVIA)

Seascape, Landscape and Visual interests are considered in Chapter 18 of the West of Orkney Windfarm EIA Report.

NatureScot interim advice

The assessment presented in the EIA Report is based on a worst case scenario layout, which includes the maximum number of WTGs, at the maximum height (359.52m to tip), sited along the OAA perimeter with the greatest density applied.

Our understanding from pre-application discussions is that this layout would never be built. Instead of the worst case layout assessed, it is likely that the WTGs will be located on two shallow banks within the OAA - Stormy Bank and Whiten Head Bank and as such an indicative layout has been presented (Figure 18.4), but not assessed. This indicative layout is presented to provide an understanding of the likely built layout. The applicant indicates that they wish to address the mitigation of significant effects post-consent following an iterative design process through the Development Specification and Layout Plan (DSLP). We do not agree with this proposed approach.

In order to address the concerns we have regarding the assessment of an unrealistic worst case scenario, we require that the seascape, landscape and visual impact assessment is revisited to ensure the following points are addressed.

The design process follows our Landscape and Visual Impact Assessment and Design Guidance with respect to the Sectoral Marine Plan Consultation[3]. This design guidance clearly sets out key overarching considerations relating to landscape and visual sensitivities to assist with informing the boundary and subsequent design layout; summarised as follows:

- Considerable variation in complexity of coastal character along both the North Coast and Orkney which significantly influences experience of seascape and coastal edge with a range of viewing heights;
- Several nationally protected areas with coastal special qualities and attributes (NSAs and Wild Land Areas (WLAs)) and unique approach to the West Mainland and Hoy NSA by ferry;
- Distinctive regional character formed by the complex coastal character, with pronounced frontier and wildness qualities;
- Views for travellers along the NC500 route - ensure that views of turbines do not impinge in views or dominate and detract from offshore islands (e.g. Rabbit Islands, Kyle of Tongue) in views from the A836 / NC500;
- Scale of the development, proximity and spatial relationship with coastlines of Highland and Orkney;
- Cumulative impacts for landscape and visual with onshore developments;
- To mitigate significant effects of the Special Landscape Qualities (SLQs) of Rackwick within the Hoy and West Mainland NSA, visibility of turbines to be removed from framed views; and
- Reduce the impact on views and perception of wildness from Cape Wrath, the North Coast and Hoy and west coast of Mainland Orkney.

[3] Sectoral Plan Consultation - NatureScot Landscape and Visual Impact Assessment and Design Guidance

In addition to the above, as highlighted in pre-application advice, any gaps or seemingly attributable breaks in the wind farm composition (stemming from benthic constraints) 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.

We require:

- **The SLVIA to be based on a realistic worst-case scenario and that where significant effects are identified that these are resolved as far as possible through adequate consideration of mitigation options as part of the application process and not post-consent.**
- **Further information in the form of wirelines from Talmine Bay / Midtown and A836 above Coldbackie Bay to enable us to take a view on whether or not the integrity of the Kyle of Tongue NSA would be affected.**
- **Additional 360º wirelines from the bays of Strathy, Armadale, Kirtomy, Swordly and Farr would also enable us to take a view on whether the effects on the North Coast, both individually and cumulatively, would raise issues of National Interest as detailed in our guidance[4].**

NatureScot's appraisal

Notwithstanding the issues highlighted above, we have reviewed the assessment based on the layout presented in the EIA Report. We advise that in addition to the effects concluded by the applicant, there could be significant adverse impacts on the following designations based on our assessment of the current design:

- Kyle of Tongue National Scenic Area (NSA) SLQ 5 - *Rich Variety of Coastal Scenery.*

In addition, we advise there could be significant adverse effects on the following distinctive coastal character types:

- North Coast[5]

These significant adverse effects could be either individually or cumulatively with other onshore and offshore wind energy developments.

<u>National Scenic Areas (NSAs)</u>

Scotland has a number of areas designated as NSAs – these areas have been designated as areas of 'outstanding scenic value in a national context' for which special protection measures are required. Each NSA has been surveyed to produce a list of Special Qualities[6]. These Special Qualities have been defined as 'the characteristics that individually or combined, give rise to an area's outstanding scenery'.

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[4] https://www.nature.scot/doc/guidance-notice-no-019-identifying-natural-heritage-issues-national-interest-development-proposals

[5] NatureScot considers the Distinctive 'North Coast' to span from the Kyle of Tongue in the west to the east side of Melvich Bay, which has been established in previous onshore application advice

[6] https://www.nature.scot/doc/naturescot-commissioned-report-374-special-qualities-national-scenic-areas

Kyle of Tongue NSA

The Kyle of Tongue NSA has six Special Landscape Qualities (SLQs):

I. An ever present backdrop of mountains
II. The Kyle – a link from an inhabited coast to a wild moorland
III. Scale – from domestic to monumental
IV. The ever changing character of the Kyle
V. Rich Variety of coastal scenery
VI. Distinct pattern of settlement

We are generally in agreement with the effects concluded by the applicant on the Kyle of Tongue NSA on SLQs 1 being not significant and 3 being significant. However, we consider significant effects on SLQ 5 - *Rich variety of coastal scenery* would be more extensive than just Torrisdale Bay, affecting the perceptual experience of the transition from the inner sheltered Kyle to the outer exposed Kyle along the entire north and north-east facing coastline of the NSA[7].

The Zone of Theoretical Visibility (ZTV) shows widespread visibility over the coastal landscape of the NSA from Torrisdale in the east to Achininver in the west. We consider the effects on perceptual qualities of SLQ 5 would be most profound when experienced in combination with the loss of expansiveness of the seascape north from the small scale crofting communities (SLQ 3). The experience of the proposed development from the outer coast of the Kyle of Tongue is demonstrated by viewpoints 4 and 5 (Figures 18.VP4a-e and 18.VP5a-e). We consider these viewpoints to be representative of the experience of the proposal when journeying from the settled inner Kyle to the outer exposed coast, throughout the NSA.

Viewpoint 17 (Figures 18.VP17a-e) from the A838 causeway over the Kyle demonstrates the experience from further south within the NSA, where the proposal would be visible above Rabbit Islands, which form the focal point of funnelled views northwards from the A838 over the outer Kyle. Whilst not significantly affecting SLQ 5 this experience from the causeway could be overcome through a reduction in turbine height and / or development at a greater distance from the NSA.

The current proposed design would significantly affect SLQ 3 and SLQ 5 of the Kyle of Tongue NSA. There would be effects on SLQ 3 - *Scale, from domestic to monumental* and SLQ 5 - *Rich variety of coastal scenery*, which would result on the perceptual experience of the transition from the inner sheltered Kyle to the outer exposed Kyle along the coastal margin of the NSA.

Hoy and West Mainland NSA

Hoy and West Mainland NSA has 11 SLQs:

I. A palimpsest of geology, topography, archaeology and land use
II. An archaeological landscape of World Heritage Status
III. The spectacular coastal scenery
IV. Sandstone and flagstone as an essence of Orkney
V. A long settled and productive land and sea
VI. The contrast between the fertile farmland and the unimproved moorland

[7] Viewpoints 4, 7 and 17 are representative of experience from the Kyle of Tongue NSA.

VII. A landscape of contrasting curves and lines
VIII. Land and water in constantly changing combinations under the open sky
IX. The high hills of Hoy
X. The townscape of Stromness, its setting and its link with the sea
XI. The traditional buildings and crofting patterns of Rackwick

We are generally in agreement with the applicants conclusions that there would be no significant effects on the SLQs of the Hoy and West Mainland NSA.

Distinctive Coastal Character Areas

Given the extensive pattern of visibility over both the North Coast and west Orkney coast, and the high value, sensitivity and strong sense of identity attributed to and expressed in these coastal fringe and edge landscapes **we consider that further work is required to understand more fully the effects that could result from the proposed development**.

The ZTV shows that there would be widespread visibility over the coastal fringe and edge of the North Coast from Melvich, over the Kyle of Tongue and beyond to Cape Wrath. There would also be widespread visibility of the proposal over the west coast of Hoy and Mainland Orkney. The Horizontal Field of View analysis shows that the proposal would occupy between a 40 - 50 degree field of view from bays along the North Coast and between a 3 - 26 degree field of view from the west coast of Orkney.

The location of the proposed development at around 26 km at its closest point to the North Coast and around 25 km from the west coast of Orkney would, in agreement with the applicant, have no direct effects on key characteristics of these coastal landscapes. However, we consider that it does have the potential to affect experiential and perceptual qualities of these coasts.

North Coast

We define landscapes of regional distinctiveness as recognisable geographical areas with a consistent overall character at a strategic level. Our Landscapes of Scotland map identifies an extensive 20 km deep band of coastline area from Melvich Bay in the north, 70 km westwards as far as Loch Inchard on the west coast. This area is described as Area 4 North Coast[8]. The mapping provides a useful strategic context for the relationship of one landscape to another.

It highlights the distinction between this landscape and the more open farmed landscapes to the east in Caithness (Area 5) where the scale of farming and signs of industry including wind farms, indicate a more managed and populated fertile landscape. The distinctiveness of the far north coast of Scotland is most clearly expressed along the eastern half of Area 4 from the Kyle of Tongue to the east side of Melvich Bay, where it displays a repeated intricate pattern of small scale bays, inlets and coast. Between Bettyhill and Melvich the characteristic indented bays are exemplified and recognised as the Farr Bay, Strathy and Portskerra Special Landscape Area (SLA). This linear regional designation is described and valued for its '*dramatic intricate coastline and forceful skies'*[9].

[8] NatureScot - Landscapes of Scotland - descriptions
[9] The Highland Council - Assessment of Highland Special Landscape Areas

We consider that the North Coast landscape has a clear strong sense of place, stemming from its regional context as a destination to experience *the rich scenic diversity of sea, coast and mountains* which contributes to the wider national landscape resource. **Scotland's North Coast is distinctive at the regional scale** and is described as: *"At the northern edge of the UK mainland, this coastline is characterised by the striking views across both land and open sea. A number of distinctive mountains form the backcloth to this area, which is characterised by a rhythmic pattern of low-lying straths, glens lochs and bays that penetrate the more elevated, wide open expanses of peatland".* This distinctiveness is well experienced from the Kyle of Tongue, cliffs and bays, and along the A836 / A838 which forms part of the popular NC500, to include the scattered settlements that lie along it.

The proposed development, given its location, has the potential to affect the landscape character at the local and regional scale. The Landscape Character Types (LCT's) along this stretch of coastline are inherently sensitive to the form of development proposed, as previously established. We consider this area of distinctive character to be highly sensitive to development of this scale, as it would provide a new setting to the coastal area which would affect perceptual qualities experienced from the lower lying coastal crofts, bays and high cliffs.

We have previously established, in our response to the onshore Armadale Wind Farm and Melvich Wind Farm applications[10], that '*Where there is the absence of development along the remote stretches of coast, a strong sense of naturalness creates a wild landscape character. Currently wind farms do not intrude or dominate the smaller scale pockets of sloping pasture and the coastal crofting communities which have a strong connection with the sea'.* **We consider that the scale and siting of the proposal could result in significant effects on the distinctive character of Scotland's North Coast.**

The distinctiveness of the coastal landscape between Melvich and the Kyle of Tongue results from the unique combination of the wildness of the high cliffs to the secluded sheltered bays, beaches and dunes which flow into the more settled coastal crofting landscape. These characteristics and qualities combine along this section of the North Coast to produce an intricate, small and human scale coastal landscape of high scenic quality with a strongly rural feel. *'The prevailing landscape and settlement pattern is characterised by the dominance of cliffs and coastal landforms over low-lying seaward facing settlements and dwellings'*[6].

The North Coast is considered to have a distinctive regional character comprising of the following perceptual qualities:

Perceptual (Scenic)[11]

- Striking views across both land and open sea where simple horizons dominate, contrasting with a more enclosed, intimate visual character within the bays;
- A breathtakingly diverse seascape, experienced as each headland is traversed and successive bays open up to view;

[10] NatureScot Response: Armadale Wind Farm Application (ECU00003455) - 20 September 2022 and Melvich Wind Energy Hub Application (ECU00004514) – 25 August 2023

[11] Landscape Institute Technical Guidance Note 02-21: Table 1 - Range of factors that can be considered when identifying landscape value.

- Rhythmic pattern of low-lying straths, glens, lochs and bays along a deeply-indented coastline of alternating rocky headlands and sheltered bays which have a strong sense of place; and
- An indented coastline with sheltered rocky and sandy bays, exposed rocky promontories and islands, creates a small scale seascape character.

Perceptual (Wildness and Tranquillity)

- Awe-inspiring, wildness of the coast which is readily experienced from the cliffs and coastline;
- Remote headlands can often give a sense of intense wildness; and
- Tranquil low-lying bays with a strong sense of seclusion.

Effects of the proposed development on experiential and perceptual qualities would be most profoundly experienced from the low-lying intricate settled bays and north-south orientated Kyles and sea lochs where the proposal is experienced in framed views out over the '*simple horizon'* of the North Atlantic.

The proposal would affect the more enclosed, intimate visual character of the small scale seascape afforded by the indented bays along the North Coast. In addition, the perceptual responses of tranquillity and seclusion from these bays would also be affected.

The bays of Achininver, Torrisdale and Melvich (Figures 18.VP4a-e, 18.VP5a-e and 18.VP7a-d) we consider would be representative of the experience of the proposal from the indented bays along the entirety of this coastline (Strathy, Armadale, Kirtomy, Swordly and Farr). Further westward within the Kyle of Tongue, Talmine and Coldbackie bays would also experience similar effects. In addition, we consider effects on the perceptual qualities of indented bays and low-lying coastline from Melvich to Armadale would be further compounded by cumulative effects resulting from the application stage onshore Armadale and Melvich Wind Farms.

The Sandy Beaches and Dunes, High Cliffs and Sheltered Bays and Coastal Croft and Small Farms LCTs are interwoven with each other along this stretch of coastline. The Coastal Croft and Small Farms LCT description makes reference to the relationship of these LCTs in creating the highly scenic character of this coast which is highly distinctive. *'On the north-west Sutherland coast, this farmed an settled landscape is often seen in conjunction with intricate coastal features including sandy beaches, dunes, rocky headlands and islands, contributing to the richly scenic character of these coastal areas'*[12]. **The proposal would affect the strong sense of seclusion and interrupt the experience of the framed views of the simple horizon afforded by the sea from these small scale intimate bays.**

The proposal would impose substantially on the highly scenic indented bays along the coastal edge of the North Coast.

Experience of the journey along this complex coastal landscape is heavily referenced in LCT and Coastal Character descriptions where '*There is a strong visual rhythm to the kyles and sea lochs, also experienced when travelling sequentially through these landscapes'* and '*the main road is*

[12] NatureScot National Landscape Character Assessment - Coastal Crofts and Small Farms LCT 144

aligned close to the indented, bayed coast' this is '*A diverse [landscape] type to travel through with views thrown back and forth, variably focussing on distant vistas or foreground details'.*

We consider that a key experience of the North Coast is from the popular NC500 tourist route. From the NC500 route which traverses the North Coast landscape the *'Distinctive contrast of sequential views and experience of the landscape - enclosed or exposed, framed or open, intimate or expansive'*[6] is well expressed from the east of Melvich. The proposal would affect this experience through introducing a man-made element of considerable scale into this experience. From enclosed, intimate low-lying areas of the coast which create framed views, the proposal would substantially infringe on the perception of the coastal landscape. Views along the coast switch from inland, particularly where land rises above straths and bays, to the sea, as a result of the undulating and indented nature of the coastline, and are ever changing. The proposal would be visible in and out of views along the NC500 route.

We consider that the proposal would significantly impact the experience of the distinctive 'North Coast' landscape from the popular NC500 route; impacting on framed views directed out over the sea. These effects would be further compounded by cumulative effects with the at application stage onshore Armadale Wind Farm and Melvich Wind Farm.

The perceptual quality of wildness is likely to be the most affected further west of the North Coast over the north-west Sutherland coast (viewpoint 1 - Faraid Head; Figures 18.VP1a-i). However, we do not consider that these effects would be significant due to the expansive nature of views out over the sea from remote elevated headlands and open bays. The awe-inspiring nature of the cliffs along the North Coast would also not be significantly affected by the proposed development.

APPENDIX C - WEST OF ORKNEY WINDFARM - MARINE MAMMALS, FISH & SHELLFISH AND BENTHIC RECEPTORS

Our interim advice, pending further information is provided below in respect of the marine mammal, fish & shellfish and benthic receptors.

MARINE MAMMALS

The marine mammal assessment is provided in Chapter 12, supported by technical detail provided in Supporting Studies 8, 9, 10 and 11. An outline Marine Mammal Mitigation Protocol is also provided (Outline Plan 2). As no Special Areas of Conservation (SACs) with marine mammal features were screened in for likely significant effect, we are content that no further consideration under HRA is required.

We have reviewed the suite of documents referred to above and have a number of concerns with the assessment approach taken. As such, we are unable to reach a final view as to the significance of predicted impacts without further information and clarifications as outlined below.

Headlines

A summary of the issues we have encountered in the marine mammals assessment is provided below:

- We have concerns over how the applicant has approached embedded mitigation within the assessment process. In most instances they have referred to embedded measures to reduce impacts (e.g. magnitude) before presenting a conclusion. However, there is insufficient detail and some uncertainty in the assessment outputs as well as around the commitment to deploy measures - as such we do not consider this to be embedded.
- Conclusions reached in the impact assessment underplay likely impacts, especially for European Protected Species (EPS), with limited detail provided on proposed mitigation measures which are deferred to EPS licensing processes.
- The structure and format of the chapters, supporting studies and associated annexes is such that necessary cross-referencing is extremely challenging. The flow of information between and across documents is particularly difficult to navigate including both the receptor's assessments and the underwater noise technical reports.

<u>Chapter 12 – Marine mammals and megafauna</u>

Section 12.1 indicates that impacts relating to European otter are discussed in the Onshore EIA Report, as there is considered to be no potential for effect on this species as a result of the offshore works. We do not agree with this conclusion and consider that there may be impacts to otter as result of construction works at landfall and within the nearshore area. Potential impacts to otters in the nearshore area and at the coast must therefore be considered fully as part of the Onshore EIA consultation and any subsequent EPS licensing process. Furthermore, as per our HRA screening advice (dated 28/10/2022) we advised that otter should also be considered as part of the Onshore HRA assessment as a SAC qualifying feature. This should include consideration of impacts within the sub-tidal zone, particularly waters less than 10 m deep and within 100 m from shore (Kruuk, 2006) where foraging dives of otter are most likely to occur.

We require:

- **Assessment of impacts to otter under HRA and EPS licensing, including in nearshore waters and at the coast, should be captured within the Onshore EIA Report.**

The narrative provided in section 12.6.1.4 seems to suggest that the preferred prey of Risso's dolphin is jellyfish. This is incorrect, the preferred prey is cephalopods (octopus, squid and cuttlefish).

In section 12.6.1.1.5 on *auditory injury*, non-piling construction activities, Table 12-31 notes a sensitivity score of 'medium' for Permanent Threshold Shift (PTS) from non-piling activities for minke whale - despite the noise levels from non-piling activities being below PTS thresholds. The reasoning given is that "LF noise generated from dredging and drilling may overlap with the hearing range of minke whale and mask LF communication". This is true, but is more relevant for disturbance impacts rather than auditory injury. However, in the scoring for *disturbance* from non-piling activities, minke whales are only scored as 'low' sensitivity.

We require:

- **Revision of the sensitivity scoring for minke whale for auditory injury and disturbance impacts.**

The sensitivity of harbour porpoise, in section 12.6.1.1.5, to disturbance from non-piling activities is assessed as 'negligible'. However, the significance conclusion summary table at the end of this section, scores harbour porpoise as having a 'low' sensitivity. We agree that 'low' is a more realistic conclusion than 'negligible', given the known responsiveness of harbour porpoise to anthropogenic noise.

We require:

- **Revision of the sensitivity scoring to 'low' for harbour porpoise for disturbance from non-piling activities.**

The assessment of cumulative effects, in section 12.7, excludes consideration of auditory injury (PTS) from activities such as pile driving and UXO clearance as suitable mitigation will be put in place to reduce injury risk to marine mammals to 'negligible' levels. We do not agree with this approach for a number of reasons. Potential effects are likely to be 'low' rather than 'negligible'. Furthermore, the assessment is being pre-empted, using *embedded* mitigation for which the detail and commitment is uncertain. Mitigation should be considered at the end to reduce effects.

We require:

- **That the cumulative assessment consider all appropriate impacts and consider mitigation options to reduce predicted impacts.**

<u>Supporting Study 8 - Digital video aerial survey methodology and marine mammal survey results</u>

We have no substantive comments to make on this document.

<u>Supporting Study 9 - Marine mammal and megafauna baseline report</u>

Generally, we agree with the species selected for assessment, which are based on both the site-specific surveys and review of other data sources. However, bottlenose dolphin has been omitted

from the assessment. While numbers of this species recorded in the survey area are relatively low, no justification is provided as to why bottlenose dolphin has been screened out.

We require:

- **Justification as to why bottlenose dolphin has been screened out from the assessment of impacts across the OAA and ECC.**

During the initial pre-application stage we advised that site-specific density estimates should be considered alongside other appropriate densities e.g. SCANS so that the most precautionary value could then be selected and taken forward for use in the assessment. Using the most precautionary value seeks to account for the difficulty and associated uncertainty in surveying marine mammals and predicting abundance values. An alternative approach to this was however presented by the applicant in subsequent pre-application discussions. As a result, in some instances the density values used are not the most precautionary. This means that the subsequent assessments have higher uncertainty and therefore need to be more precautionary. This is reflected in our consideration of magnitude.

<u>Supporting Study 10 - Marine mammal underwater noise impact assessment</u>

Several times in the EIA Report the narrative indicates that NatureScot requested that the UK portion of the Management Unit (MU) is presented as the relevant reference population for each cetacean species. This is incorrect. For clarification, it was the applicant's consultants that requested this and provided justification, we which we accepted, during the pre-application meeting held on 23 June 2022. The EIA Report presents the results for both the wider MU and UK portion, which is helpful.

Section 3.7.1

In section 3.7.1, the applicant states that using the harbour porpoise dose-response curve for other species is highly precautionary as harbour porpoise are known to be more sensitive to anthropogenic noise than other cetacean species. While we agree this is the case, in the absence of species-specific dose-response functions, we continue to advise this approach is used. However, the statement provided in this section, that harbour porpoise are more sensitive to anthropogenic noise than other species, contradicts the conclusions within the impact assessment, where harbour porpoise are given a sensitivity score (to underwater noise impacts) of 'negligible', while some other species are classed as 'medium' sensitivity. This inconsistency needs to be addressed.

We require:

- **Revision of the sensitivity score (to underwater noise impacts) for harbour porpoise – we do not agree this is 'negligible'.**

Sections 6.2-6.5

We do not agree, as indicated in Table 6.2 (and elsewhere), with the use of only "the most sensitive region of marine mammal hearing capabilities" rather than the full range. We don't know how changes to hearing outwith the most sensitive region will affect animals in the long-term and there may still be functionality at these frequencies. We have taken this aspect into account when considering the sensitivity of each species as discussed below.

In relation to geophysical surveys (sections 6.2-6.5), the conclusion reached on potential impacts is based on "typical noise emitting survey equipment", which operates below the PTS level for all species – deemed embedded mitigation. The conclusion that the magnitude of impact is 'negligible' is only correct if, in practice, all equipment operates at these levels or below. However, if other equipment is used which operates at higher levels, these conclusions will no longer be valid and will need to be reviewed. We do not agree with the approach where by mitigation is being considered at this stage of the assessment to reduce the magnitude score. Mitigation should be applied afterwards to reduce the risk. We are unclear as to the process of how this would be considered through conditions to any consents or licensing particularly given the lack of detail provided on survey requirement.

We require:

- **Direction from MD LOT as to the process and detail required for considering impacts to EPS during the application stage and at what stage mitigation should be applied – we can then provide further advice as required.**

Section 7 – UXO clearance

For unexploded ordinance (UXO) clearance, the assessment is undertaken by considering the frequency range of greatest sensitivity, rather than the full hearing range, so will underestimate the sensitivity. In addition, the sensitivity score given for PTS from UXO clearance (e.g. low sensitivity) takes no account of the conservation value of the species, as set out in the sensitivity criteria in Table 3.1. The magnitude score for PTS of 'negligible' underestimates the likely scale of impacts, in line with the magnitude criteria in Table 3.2.

Overall, the approach used for the noise modelling, predictions of numbers, etc. is appropriate. However, in many cases, the assignments of the sensitivity and magnitude categories are poorly evidenced and at times arbitrary. We are concerned that this leads to conclusions of significance which seem under-precautionary.

We require:

- **Revision of the sensitivity score used for UXO clearance to reflect the conservation value of cetaceans which should be scored as 'high'.**
- **Revision of the magnitude score for PTS from UXO clearance which should be scored as 'low'.**

Section 8 – Pile driving

For the assessment of *auditory injury from pile driving*, we disagree with the conclusions reached on magnitude of impact from piling for PTS for several species (section 8.2). For example, for harbour porpoise, the maximum instantaneous PTS range is 720 m, while the maximum cumulative range is 17 km, leading to up to 255 harbour porpoise with PTS (for a single piling event). The conclusion given is 'negligible' magnitude (section 8.2.1.1). This does not match up with the magnitude criteria in Table 3.2 – for a 'negligible' category, there would need to be: *very slight change from baseline, highly localised, rapid recovery, unlikely or very low frequency occurrence*. This is not a very low frequency of occurrence given the proposal comprises 125 WTGs and 5 OSPs. Similarly, a PTS range of 17 km can't be said to be 'highly localised'. An impact of PTS by definition is a permanent change and does not have a 'rapid recovery'. The only

magnitude criterion which is met at a 'negligible' level, is potentially 'very slight change from baseline condition that will not affect the conservation status or integrity of the receptor' and that is only considered for a single piling event.

For PTS for harbour porpoise, a sensitivity score of 'low' has been concluded (section 8.2.1.2). This has been reached based on a single, unpublished report (Booth & Heinis, 2018). While this report is useful, it does not give the certainty needed to reach this conclusion. It is noted in the EIA Report that further consideration is to be given to these effects at the EPS licensing stage.

We also disagree with the 'negligible' significance conclusion for harbour porpoise (section 8.2.1.3). Studies indicate that harbour porpoise are particularly sensitive to anthropogenic noise and the conclusion does not take into account the criterion: 'receptor of conservation / economic value'.

We require:

- **Revision of the magnitude scoring for PTS from piling for: harbour porpoise (medium), seals (low) and minke whale (high).**
- **Revision of the sensitivity score for harbour porpoise for PTS from piling to 'high' to reflect their conservation value.**
- **Revision of the significance conclusion to account for the change in magnitude and sensitivity scores as described above.**

For the assessment of *disturbance from pile driving*, we note in section 8.3.1, the magnitude of effect of disturbance from piling is determined solely by the outcome of the iPCoD modelling, and therefore focuses only on the first (of three) descriptors as provided in magnitude criteria in Table 3.2: ''Very slight change from baseline condition that will not affect the conservation status or integrity of the receptor''. We disagree that the magnitude is 'negligible' in respect of the other two descriptors: 'impact is highly localised and short-term with full rapid recovery' and 'impact is very unlikely to occur and if it does will occur at very low frequency or intensity'. This is because, the impact will occur repeatedly over a number of years, over a considerable spatial scale (as shown in Figure 8.11).

We advise that a sensitivity of 'high' is more appropriate for all species of cetacean, given their conservation value, and known response to disturbance.

We require:

- **Revision of the magnitude scores for disturbance from piling which should be 'medium'.**
- **Revision of the sensitivity score for all species to 'high' to reflect their conservation value and status.**
- **Revision of the significance conclusion to account for the change in magnitude and sensitivity scores as described above.**

Within the *disturbance from pile driving assessment*, harbour seals have been scored as 'medium' sensitivity, while grey seals are 'negligible' sensitivity. While grey seals are potentially less sensitive to disturbance than harbour seals, we disagree this can be described as 'negligible', as displacement from foraging grounds can have an impact, so 'low' would be more appropriate.

We require:

- **Revision of the grey seal sensitivity to 'low' for assessment of disturbance from pile driving.**

Section 9 - Non-piling construction activities

In relation to PTS from non-piling sources (section 9.2), minke whale sensitivity is scored as 'medium' and for other species as 'low' – even though the non-piling noise does not reach the PTS threshold. This does not make any sense in relation to the sensitivity scores given for UXO clearance and piling above and means that PTS from non-piling activities is being scored similarly for PTS to piling, when the PTS thresholds are not reached for these activities.

We require:

- **Clarification, and potential revision to the sensitivity scoring for all species for non-piling sources.**

Section 11 - Cumulative effects assessment

All offshore projects with construction taking place between 2026 and 2037 have been included in the assessment. Collisions from tidal sites have not been included, but the justification for this exclusion is not provided.

We require:

- **Further consideration of how predicted mortality from collision with tidal stream developments can be incorporated into the assessment.**

The applicant has used the Effective Deterrence Range (EDR) to estimate the number of animals impacted where there is no data available for a development. In general, we don't endorse the use of EDRs, but in this case where no other data are available for certain projects, then its use is acceptable as part of the cumulative assessment. We would not agree to the use of EDRs in the main assessment.

The results of the cumulative effects assessment are presented as the number of animals disturbed <u>per day</u> of activity, and as a percentage of the MU population. This results in a conclusion of 'medium' magnitude and 'low' sensitivity for harbour porpoise (section 11.3.3). The conclusion states "*No alteration to the conservation status of harbour porpoise is expected from this level of disturbance, and the level of impact across the various projects is unlikely to result in population level impact based on the results shown in other examples of population modelling*." No specific population modelling has been undertaken for this cumulative assessment. Instead, there is a reliance on a single study on the North Sea harbour porpoise population (Nabe-Nielsen et al. 2018). It is not clear how relevant this study is to the current scenario, and it does not provide sufficient evidence that the cumulative effects will not result in population-level impacts.

We require:

- **Further justification, beyond the reliance of the single study reference to support the cumulative assessment conclusion for harbour porpoise.**

No population modelling has been undertaken for white-beaked dolphin, common dolphin, and Risso's dolphin, with the assessment again being based only on the number and percentage of

animals disturbed per day. However, for these species, this approach is acceptable as iPCoD does not cover these species.

In relation to minke whale, no population modelling has been carried out - iPCoD should have been used for this species. The assessment concludes "*No alteration to the conservation status of minke whales is expected, and the level of impact across the various projects is unlikely to result in population level impact*." However, there is no explanation of how this conclusion was reached.

We require:

- **Revision of the cumulative assessment for minke whale.**

Similarly, no population modelling was carried out for either seal species - given the likelihood of other development occurring in this region impacting on seals, and the vulnerability of harbour seal we advise population modelling is required for both species. We do not agree with the 'negligible' score for grey seal in section 11.3.7.

We require:

- **That the cumulative assessment for impacts to seal species include population modelling.**

<u>Supporting Study 11 - Underwater noise modelling report</u>

The modelling report by Subacoustech provides a good description of the work undertaken and details the results of the modelling. Activities modelled include single location piling, concurrent (2 locations) piling, UXO clearance, as well as a range of non-piling activities (cable laying, dredging, drilling, rock placement, trenching, suction bucket installation and vessel noise). A range of piling scenarios are modelled (different pile locations, monopiles and jacket piling, hammer energies, hard / soft sediments, number of piles in 24 hours). All marine mammal groups (based on Southall et al. 2019) and fish groups (based on Popper et al. 2014) are considered. The outputs of the underwater noise modelling are used in the impact assessment. The approach taken in the modelling is appropriate and the outputs are well presented and explained.

In section 3, there is a statement that the size of hammer (5,000 kJ) is greater than in currently available data, and the depth of water is greater than previously modelled. This means that the model is being extrapolated beyond the boundaries of the current dataset and therefore has a degree of uncertainty. Thus, as a result of this uncertainty we request that, if consented, monitoring of noise levels from piling should be undertaken in order to validate the model.

We require:

- **Noise level monitoring of pile driving activities should be undertaken, if proposal is consented, in order to validate the model prediction.**

The predicted instantaneous PTS ranges for some species are greater than the standard 500m mitigation zone. The mitigation measures will need to take this into account, for example through use of larger Marine Mammal Observer (MMO) zones using multiple MMOs, or through the use of Acoustic Deterrent Devices (ADDs). Some ranges for cumulative SEL are 10s of kilometres, and will require additional mitigation. This will need to be clearly detailed in a mitigation plan / Piling strategy.

We require:

- **An updated piling strategy is required once detailed project parameters are known, which addresses our concerns around mitigating predicted PTS ranges.**

Outline Plan 2: Marine mammal mitigation protocol

An outline MMMP has been included within the EIA Report. There are discrepancies between Tables 3-1 and 3-2 of the outline plan and Tables 3-2 and 3-3 in the underwater noise modelling report (Supporting Study 11). The titles of the tables are the same but in the outline plan the amount of time at full piling is considerably less than those presented in the modelling report (910 minutes vs 430 minutes (hard sediment); 430 minutes vs 190 minutes (soft sediment)), giving half the total duration of piling (16 hours vs 8 hours; 8 hours vs 4 hours). Similarly, the number of blows at full strength is considerably lower in the outline plan than in the modelling report. This is a significant change in the scenarios presented and requires clarification.

We require:

- **Clarification of the discrepancies between the aforementioned tables / documents to ensure the values presented for piling durations and number of hammer blows etc. are accurate.**

Details of the mitigation measures are insufficient. For example, as noted above the mitigation zone will require to be larger than the standard 500m, but there is no information on how this will be achieved. Likewise, it is stated that ADDs could be used as mitigation, but there is no commitment to this.

We require:

- **Further consideration of mitigation at the application stage.**

FISH AND SHELLFISH ECOLOGY

Fish and shellfish ecology is considered in Chapter 11 and Supporting Studies 7 and 11.

The EIA Report concludes that all potential impacts for fish and shellfish receptors were either insignificant or of minor significance and as such no further mitigation was required. However, we do not agree that sufficient assessment has been undertaken in relation to key Priority Marine Features (PMFs) as outlined below.

Headlines

- We have a number of concerns with the assessment approach. We believe that some potential impacts have been missed, and that others can only be fully quantified on the basis of finer resolution analyses and integration of original survey datasets.
- Insufficient assessment of impacts to key PMFs including consideration of national status.
- In general, consideration of mitigation is limited.

NatureScot interim advice

Priority Marine Features (PMFs)

Common skate complex

Common skate complex, which includes flapper skate *Dipturus intermedius* and blue skate *D. flossada* (here after termed common skate), are categorised as Critically Endangered on the IUCN red list of threatened species and are a PMF in Scotland. The potential importance of the offshore Project area for these species was highlighted pre-application, in particular the potential egg-laying habitat within the OAA.

We note from Table 11-13 (section 11.5.2) that temporary increases in suspended sediment concentrations (SSC) and associated sediment deposition (during the construction phase) has not been scoped in. This impact pathway has been considered within the benthic and marine physical and coastal processes chapters, where assessment of modelled scenarios and provision of likely deposition values are provided. These indicate that SSC impacts are predicted to be localised and restricted to a small proportion of the OAA; in most cases, we would expect mobile fish and shellfish to flee from areas of increased SSC. However, eggs are considered to be especially vulnerable to smothering effects from increases in SSC.

It is unclear to us whether the assessment has specifically considered and reached a conclusion regarding any potential risk to common skate eggs from underwater noise. Table 11-18 in section 11.6.1.2 presents large mortality and potential mortal injury ranges for a generic 'Eggs and larvae' category.

Before we can provide advice as to the significance of these potential impact pathways, we need to better understand habitat usage of the site by common skate and thus advise that all site-specific survey data is revisited.

Common skate have been considered in section 11.6.1.1.3 (termed flapper skate) in terms of habitat disturbance or loss and given a magnitude score of 'low'. This score may require updating depending on further analysis of habitat usage of the site.

We require:

- **All drop down video footage should be re-analysed for the presence of common skate as well as any evidence of eggs, including any 'historic' egg cases wedged between the cobles and boulders. Results from the eDNA survey should be used to complement this. The scope of this analysis should be agreed in advance.**
- **Agreement will also be needed as to whether further survey work is required.**
- **Depending on the results of this analysis we may require further assessment, including consideration of the impact pathways discussed above – this may also require revision of magnitude scores.**
- **Assessment may require consideration of potential implication for the national status of this species and further consideration of mitigation and / or monitoring requirements may also be required.**

Sandeel (Ammodytes marinus and A. tobianus)

Given the importance of sandeel within the wider ecosystem, particularly as a prey species and in recognition of their status as a PMF in Scottish waters, we had anticipated greater consideration of potential impacts to this species and consider the current assessment to be insufficient. Moreover, in reviewing all three methods used to identify sandeel location (e.g. eDNA, survey

observations, and habitat suitability), it is clear that a large proportion of the OAA has suitable habitat for sandeel and / or sandeel are present. In addition, within the ECC much of the inshore area out to where the corridor splits and the eastern fork to the 12nm boundary, also has suitable habitat for sandeel and / or sandeel are present.

This has not been reflected in the assessment, for example, section 11.6.1.1.1 of the EIA Report underplays the importance of sandeels and their corresponding habitat across the offshore Project area - we do not agree with a magnitude score of 'low'.

We require:

- **The presence of sandeels and suitable habitat across the OAA / ECC to be appropriately contextualised to inform the assessment process.**
- **The assessment of impacts to this species / suitable habitat must include the following impact pathways: temporary increases in suspended sediment concentrations and associated sediment deposition via appropriate modelling, temporary habitat disturbance and loss.**
- **The assessment should also consider the potential for impacts to sandeel eggs and larvae from underwater noise.**
- **Assessment against the national status of this species may be required and results of modelling need to determine whether there is any route to impact for North-West Orkney NC MPA.**
- **Consideration of mitigation and monitoring may also be required.**

<u>Other impact pathways</u>

Electro-Magnetic Field (EMF)

Section 11.6.2.2 makes reference to a project-specific modelling study carried out by a cable manufacturing contractor, but the results are stated as confidential. Furthermore, the modelling was undertaken using a lower voltage than that proposed by the applicant. Therefore, we are not able to provide any specific comments in relation to the modelling undertaken. However, we wish to highlight that cable burial should only be considered as mitigation if significant burial depth can be achieved.

We recommend that this project contributes, where appropriate, to any strategic research (e.g. ScotMER), which helps to improve our understanding of impact pathways including EMF and to validate the assumptions of the assessment. We specifically welcome the ScotMER project "A Targeted Approach to Defining EMF from Subsea Cables and Understanding Potential Impacts on Fish and Benthic Species".

BENTHIC INTERESTS

Benthic interests are considered in Chapter 10 and Supporting Studies 4 and 5. As no SACs with benthic features were screened in for likely significant effect, we are content that no further consideration under HRA is required.

Overall, the benthic assessment is mostly in line with our advice provided at scoping and through pre-application engagement. The EIA Report concludes that all potential impacts were either of minor or negligible significance.

We have reviewed the suite of documents referred to above and have a number of concerns with the assessment approach taken and as such are unable to reach a final view as to the significance of predicted impacts without further information and clarification as indicated below.

Headlines

- There are errors and inconsistencies across the assessment materials. These include discrepancies in the numbers of samples taken and numbers of individual species reported.
- Missing appendices - Supporting Study 5 appendices A-H and J are missing.
- Consideration of mitigation is limited at this stage.

NatureScot interim advice

Baseline

Figure 10-10 in section 10.4.4.4 purports to map the conclusions of the assessment work in terms of the distribution of designated sites, Annex 1 habitats and PMFs in relation to the proposed OAA and ECC. However, this overview graphic does not incorporate the results of all the site-specific benthic and environmental surveys undertaken. The map therefore appears to play down the potential significance of the offshore Project area for Annex 1 habitats and PMF habitats and species. Further advice is provided below.

Key impacts assessed

Annex 1 reef

The assessment provided concludes that the proportion of Annex 1 reef habitat affected will be relatively small-scale and therefore not significant, relative to Scotland / UK-wide estimates. However, it is not clear how this conclusion was reached. This is partly due to insufficient information, lack of transparency to verify statements and errors in calculations. These include:

- Section 10.5.6.4 states that the total area of 1170 Annex I Reef protected under Scottish SACs is 8,938 km^2 and in UK SACs is 12,940 km^2, citing the reference for this as Natural England and JNCC, 2019[13]. We are unable to find these numbers in the reference provided and they do not match up with the numbers given in the 2019 Article 17 reporting for Scotland and UK.
- Section 8.3.3 of Supporting Study 4, indicates that Annex 1 stony reef covers an extent of up to approximately 17.8 % of the OAA. This is incorrect. As noted throughout Chapter 10, Annex 1 stony reef was identified across the entire survey area, with spatial analysis undertaken concluding that approximately 42.6 % of the OAA and 23 % of the ECC comprised Annex 1 stony reef habitat. A rugosity study was undertaken by the applicant which provides useful detail on the delineation of low / medium reef, giving a better

[13] https://data.jncc.gov.uk/data/3c9f030c-5fa0-4ee4-9868-1debedb4b47f/NE-JNCC-advice-key-sensitivities-habitats-MPAs-offshore-windfarm-cabling.pdf

understanding of the habitat - this estimates that the proportion of low to medium reef that occurs across the offshore Project area was approximately 17.8 %, which is where the confusion may have arisen. However, we are content that the correct site-specific figures have been used in the calculations. Annex 1 stony reef (low through to medium and potential classes) should be mapped on Figure 10-10.

- Our understanding of recovery from cabling impacts on stony reef from Natural England and JNCC (2019) indicates there is no morphological recovery and therefore biodiversity does not return to pre impacted status - this contradicts the applicant's assertion, in section 10.6.1.1.1, that "*However, these reef habitats are considered to have a high resilience and recoverability to temporary disturbance*". In addition, no reference has been provided to support this statement.

We require:

- **Confirmation of values and references used to quantify impacts to Annex 1 reef in national and UK context.**
- **Revision of the narrative around resilience and recoverability to reflect anticipated changes in reef morphology associated with different development activities. This should include appropriate referencing to sensitivity assessments (e.g. FeAST or MarLIN) for predominant EUNIS reef habitat classes present.**

Section 10.6.2.2.1 notes that "*long-term disturbance in the OAA and ECC affecting the stony reef habitat will arise from installation of the export, inter-array and interconnector cables, suction bucket jackets associated with the WTGs and OSPs, and associated rock placement. The direct placement of infrastructure and protective material and the rocky habitats will replace the existing habitat in the immediate vicinity with direct mortality of all affected surfaces and replace the existing boulders and cobble substrate with anthropogenic artificial substrate".* It goes on to state that where possible, rock protection will match up as much as possible with the existing hard substrate, in terms of size, shape and type of rock / materials used in order to minimise habitat alteration. This appears to be used to help justify the impact as being of 'low' magnitude - the same justification is provided within the PMF sands and gravels habitat assessment (as per section 10.6.2.2.2). We do not accept that either scenario represents truly embedded mitigation.

We require:

- **Review of the justification provided for the magnitude scoring for impacts to Annex 1 stony reef habitat and the offshore subtidal sands and gravels PMF or a commitment to the mitigation proposed.**
- **Offshore subtidal sands and gravels PMF distribution should be mapped on Figure 10-10.**

Supporting Study 5, section 6.1.3 includes the statement "*S. spinulosa did not qualify as Annex I (1170) – Reefs, Biogenic Reefs due to the fact that the supporting substrate is geogenic and not biogenic.*" This justification is incorrect as the substrate below a *Sabellaria* reef is always geogenic, whether sands, mixed substrates or rock. The definition of reef depends on elevation (tube height), area and patchiness, not what the supporting substrate is.

We require:

- **Clarification on what the applicant is inferring i.e. that the *S. spinulosa* does not meet the criteria to be classed as a reef – or another meaning?**

Boulder clearance and scour protection

A large proportion of the substrate within the offshore Project area is stony reef, with mixed sediments interspersed with cobbles and boulders - resulting in a large area (30.4 km^2) that will require boulder clearance (Tables 10-15 & 10-16). This is a greater extent than experienced to date at any other Scottish wind farm and potentially indicative of a greater scale of potential habitat change.

Similarly, there is a large extent (25.72 km^2) of the Project area that will require bedform clearance (e.g. sand waves). For benthic species, there is a high degree of uncertainty in terms of recoverability and we would therefore expect to see further consideration of this aspect including a reflection of this within magnitude scores.

We require:

- **Revision of assessment including magnitude score to better reflect the scale of boulder and bedform clearance which accounts for the uncertainty around recoverability (linked to Annex 1 reef comments above).**
- **This is an aspect that could be subject to monitoring if the proposal is consented as part of a benthic mitigation plan.**

For scour protection, a range of possible methods are proposed, including use of artificial fronds (polypropylene). **We do not wish to see this method used due to the likelihood of introducing polypropylene (plastic) particles into the marine environment**.

Cable burial

We note that the target depth of cable burial is 1 - 3 m, which is in line with our advice. Currently, up to 20 % of inter-array cables, 66 % of interconnector cables, and 29 % of the ECC may need external protection. However, given the recent experience at other wind farms, this target depth is often not reached.

We require:

- **Further consideration of contingency plans given there is a greater proportion of hard substrate in the offshore Project area, which may present issues for cable burial and have further implications for reef and sedimentary bedform habitats.**

Ocean quahog – PMF

Within the EIA Report, there is no attempt to quantify impacts on ocean quahog – a PMF in Scottish waters. We have carried out a PMF assessment, including a simple quantification of the extent of likely impacts. Our assessment concludes that **there is likely to be an impact on the ocean quahog PMF but without significant impact on national status.** Further context is provided below.

It is not entirely clear from the information provided in the EIA Report, how many benthic survey samples were collected and how many ocean quahog were recorded during the survey. This is due to a number of inconsistencies between Supporting Study 4, Supporting Study 5 and Chapter

10. However, our assumption is that the information provided in Supporting Study 5 is correct - 53 ocean quahogs were found at 19 of 76 successfully sampled grab stations, comprising two adults and 51 juveniles, geographically spread across the OAA and ECC.

We require:

- **Confirmation of how many juveniles, adults and empty ocean quahog shells were found during the benthic survey campaign and the parameter(s) used to distinguish juveniles.**

Grab sampling typically collects only the top 10-20 cm of sediment and penetration is often reduced in hard sediments. It is our understanding that faunal samples >5 cm penetration depth (and 7 cm for finer sands) were retained in this study. Ocean quahog, particularly adults, may be found deeper in the sediment than this (variable depths from upper few cm to 10 cm+ with some evidence of seasonal synchronous burrowing deeper in the sediments in August-September when the 2022 survey was undertaken). To that end, we expect that the grab sampling is likely to underestimate the number of individual animals present. We therefore adopted an alternative approach, using the total extent of subtidal sands and gravels as a proxy for potential habitat for ocean quahog, whilst recognising this may over-estimate potential impacts. The survey area comprised a mixture of soft sediments (primarily sands and gravel-sand matrix, suitable as habitat for quahog) and rocky and stony reef (unlikely to be suitable as quahog habitat). Therefore, our assessment estimated the percentage of sands and gravels habitat likely to be impacted by the proposal. This indicated that 2.07% of the sands and gravels habitat in the ECC and 1.43 % in the OAA will be lost in the long-term based on a worst case scenario. Given the widespread nature of the sands and gravels habitat throughout the Scottish[14] and UK[15] waters, the magnitude of this impact is likely to be 'low'. **Therefore, our assessment concludes that there is likely to be an impact on ocean quahog but without significant impact on national status.**

Tide-swept coarse sands with burrowing bivalves - PMF

We note that tide-swept coarse sands with burrowing bivalves (biotope code SS.SCS.ICS.MoeVen - EUNIS code MB3233) - also a PMF in Scottish territorial waters - was recorded in the survey. Assessment of impacts to this PMF are not included within the EIA Report.

We require:

- **An assessment of potential impacts on the tide-swept coarse sands with burrowing bivalves PMF. Please note that the PMF includes examples of the community where it lies outside the typical depth range of the biotope[16].**
- **Records of the PMF should be mapped and included on Figure 10-10 (confined to 12 nm territorial waters but records appear relevant to OAA and ECC).**

Invasive Non-Native Species (INNS)

Section 10.6.1.3 states that the increased risk of INNS is 'negligible' - we disagree. Given the increase in vessel traffic and the placement of artificial structures into the marine environment providing possible settlement areas for INNS, the extent of possible establishment areas could be

[14] https://marinescotland.atkinsgeospatial.com/nmpi/default.aspx?layers=953
[15] https://www.marlin.ac.uk/species/detail/1519
[16] See footnote 8 at https://www.nature.scot/doc/priority-marine-features-scotlands-seas-habitats

considerable and long-term. Even if best practice is followed, the risk of INNS establishing cannot be completely removed.

We require:

- **Revision of the magnitude score to 'low' - this will raise the consequence from 'negligible' to 'low', which is still insignificant in EIA terms.**

An outline INNS Management Plan is included within the outline Environmental Management Plan (Outline Plan 1), which notes that the INNS Management Plan will be drafted post-consent along with a Monitoring Plan if required. The Scoping Opinion directed that in relation to INNS and colonisation of hard structures, the full range of mitigation techniques and published guidance should be considered, which included ensuring appropriate mitigation and monitoring is embedded to combat the potential spread of INNS. This appears to have been omitted from the EIA Report with only an outline plan provided and no commitment to monitoring at this stage.

We require:

- **Commitment to appropriate mitigation and monitoring in relation to INNS as part of the application submission.**

EMF

Please see above under fish and shellfish advice, for advice with respect to EMF effects which is also applicable to benthic interests.

APPENDIX D – WEST OF ORKNEY WINDFARM - DEROGATION CASE

An outline derogation case has been provided by the applicant alongside the wind farm application on a without prejudice basis. The derogation case provides measures to offset predicted adverse impacts to guillemot, kittiwake, puffin and great black-backed gull as identified in the EIA Report.

The measures comprise:

- Construction of predator-proof fencing (up to 2 m high) across an undisclosed area(s) on one or more of the following islands in Orkney: Rousay, Hoy, Flotta, Stronsay and Gairsay.
- Eradication of rats within the fenced area(s) using bait stations.
- Trapping and removal of feral cats within the fenced area(s).
- Continued management of biosecurity and any eradication associated with re-incursion within the fenced area(s) during the operational lifetime of the Project.

Our lack of confidence in the applicant's overarching ornithological assessment - based on the number and systemic nature of errors identified with the assessment and compounded by insufficient transparency - has meant we are unable to reach a view on the level of predicted effects. As such, and acknowledging the strict step-wise process of the Habitats Regulation Appraisal, **we are unable to confirm which sites and qualifying features may require compensation.**

Furthermore, during our pre-application engagement we discussed with the applicant the expected level of evidence and detail required within the derogation case. It is disappointing to note that very little of our pre-application advice has been implemented, driven in part by project timelines and the belief by the applicant that compensatory measures will not be necessary. The case provided is outline and high level – a fact acknowledged by the applicant. **This lack of detail prevents the provision of definitive advice on the sufficiency of compensatory measures proposed.**

We recommend that the expected level of detail and therefore assurance required with respect to submission of without prejudice derogation cases is established through the forthcoming update to the recently finalised Compensation Measures Framework, along with guidance as to what stage of the consenting process these should be submitted.

Headlines

Despite the challenges outlined above due to the lack of detailed information, we have reviewed the documents provided. In doing so we outline below a number of overarching concerns which we advise need be addressed, should Scottish Ministers require that compensation measures are necessary:

- In recognition of the difficulty in achieving full island predator eradication, the proposed compensation measure focuses instead on discrete locations for control / exclusion across the above mentioned proposed island(s). However, no consideration has been given to potential mainland (Orkney or Scotland) location(s) which may have less constraints;

- The derogation case relies on evidence that demonstrates only limited benefit from brown rat eradication for target species, specifically guillemot, kittiwake and great black-backed gull;
- While brown rat eradication in general provides stronger evidence of benefit for puffin, it will depend in part on site-specific factors including soil type and vegetation cover – no information was provided to demonstrate the appropriateness of this measure for these locations;
- No evidence has been provided that demonstrates that feral cats are limiting cliff nesting target species (guillemot, kittiwake or puffin) across any of the proposed island(s);
- Only limited consideration of alternative compensatory measures e.g. consideration of forage fish / prey resources has been undertaken;
- Limited evidence is provided as to the efficacy of the proposed anti-predator fences including what is needed to support this in the long term – this could potentially have been sought from various projects in New Zealand and Hawaii where these fences have been used;
- The mechanism(s) through which benefits to target species would be delivered is not clear and requires clarification;
- There is insufficient consideration of the timing of benefit to target species;
- There is insufficient consideration of non-target species, including Orkney voles, otters and ground-nesting birds;
- There is only limited consideration of any adaptive management and confusion around use of remedial measures;
- The lack of site-specific information means we cannot provide advice on additionality; and
- Limited consultation with landowners / managers and relevant stakeholders, including the Orkney Native Wildlife Project.

NatureScot interim advice

For each of the derogation documents provided by the applicant, we outline below, those aspects where further information and or clarification is required, should compensatory measures be necessary.

<u>Derogation case, specifically part D: compensatory measures</u>

We have reviewed the derogation case (document reference: W01-WOW-CON-EV-RP-0070 – 15/09/2023) and provide advice below specific only to Part D – Compensatory Measure.

Section 11 - Introduction to compensatory measures

This section provides a high level overview of the proposed compensation measures with most of the detail provided in Table 15. We have reviewed this table and note that further information is required with respect to the following points as outlined below:

Feasibility assessment	NatureScot advice in respect of Table 15
Is the measure technically feasible?	The explanation column omits any reference to anti-predator fencing or feral cats. Narrative is provided on the eradication of rats from other islands in the UK. However, there is no recognition or discussion of specific challenges for the islands listed, relating for example to their size, target and non-target species present, habitats, human populations and activities etc. Also, the feasibility of keeping rats (and cats) fenced out is not considered.
Is the measure financially feasible?	No comment.
Is the measure legally feasible?	Landowner agreement(s) are yet to be secured to facilitate the proposed compensatory measures. As the location(s) are not specified in any detail, we also cannot advise whether SSSI consent would be required or whether there is the potential for impacts to European sites or protected species. There is no mention of other potential constraints e.g. AECS agreements. There may also be a requirement for planning permission from Orkney Islands Council.
Is the measure deliverable?	This remains uncertain based on the current level of information provided.
Is the measure ecologically effective (e.g. sufficient)?	The evidence that feral cat / rat predator control will benefit cliff-nesting species is generally very weak. The narrative in Table 15 contradicts evidence provided within the compensation plan. Insufficient detail is provided - we therefore cannot advise on sufficiency.
Will the measure be effective before adverse effects arise?	We cannot advise until we better understand which SPAs and their qualifying features require compensation, where compensation measures will be undertaken and the mechanism(s) through which benefit will be derived and when. Nor can we advise at this stage on the implications for network coherence. Site-specific information on the scale and quality of any habitat that might currently be unoccupied because of presence of rats (and / or cats) is required, particularly for cliff nesting species such as guillemot and kittiwake.
Can the measure be secured?	Contacting landowners is not the same as having confidence in being permitted access / use of land. It is therefore uncertain, particularly given the novel nature of the Xcluder anti-predator fencing, whether this is can be secured or not. Limited stakeholder engagement has been undertaken.
Can success of the measure be monitored?	We cannot advise until we better understand which SPAs and their qualifying features require compensation, where this will be facilitated and the mechanism through which benefit will be derived and when.
Have uncertainties been addressed?	Consideration of uncertainties around the compensation measures themselves and their implementation has been omitted.

	The applicant refers to recent evidence from other wind farms in Scotland which show no displacement of kittiwakes and auks – we do not believe this evidence is sufficient at this point in time to change our position with respect to the assessment of displacement / barrier effects.
Is the measure additional?	We cannot advise if the measure is additional as the information on where the proposed measures will take place has not been provided for any of the shortlisted islands.

With respect to section 11.5, no analysis has been provided to evidence that 'significant additional kittiwakes, guillemots, razorbills and puffins will be provided into the UK population''.

Section 12 – Conclusions

We make no comment on this section as it largely concentrates on section A-C and is for the Competent Authority to be satisfied.

<u>Compensation measures plan</u>

We have reviewed the compensation measures plan (document reference: W01-WOW-CON-EV-RP-0071 – 15/09/2023) and provide advice as outlined below.

Section 1 – Introduction

As noted in the cover letter, those SPAs and their qualifying features which may require compensation need an entire re-assessment to address the failings in the ornithological assessment provided by the applicant.

Section 2 – Potential compensation measure

Consideration of what evidence may be available to better understand guillemot and puffin diets at relevant SPAs is omitted, focus instead is solely on sandeels with no consideration of other forage fish (e.g. sprats). This aspect has been missed from the consideration of potential compensation measures, other than predator removal or control.

Section 3 - Evidence of benefit

Section 3.1 on the evidence for eradication of rats mistakenly contains narrative in section 3.1.1.7 on the eradication of feral cats, which should instead be in section 3.2.

For *kittiwake*, there is no clear evidence, from multiple colonies, of any positive effect from rat eradication and while background noise / wider drivers in the system could make any such effect difficult to detect - we consider that if it were consistently present and sufficiently strong it should be apparent. The evidence shown is therefore that there is unlikely to be actual (and detectable) benefit to kittiwakes from rat (and likely cat) eradication / control. This has not been sufficiently considered when selecting the proposed compensatory measure.

For *great black-backed gull* (GBBG) there is no consideration of trends at other colonies where rat removal has been undertaken – that said there is likely to be little data available and we agree with the conclusion that there is little evidence from the data that the removal of rats had an important direct benefit to GBBG. As for kittiwake above, this has not been considered sufficiently when selecting the proposed compensatory measure.

For *guillemot*, the case made for brown rat eradication benefitting cliff-nesting species, specifically common guillemots, is based on Lundy Island in the Bristol Channel. Both brown and black rats, which are generally more agile, were present across Lundy and were eradicated in the early 2000s. The project's focus was specifically on habitat restoration for Manx shearwaters, but in the 20 years since eradication, populations of other seabird species, including common guillemots have also increased on the island. We have reviewed published evidence from Lundy and also discussed the specifics of the eradication with the Natural England project lead (D. Appleton, 9 November 2023). We understand that the island's particular topography and habitat structure was an essential factor in the observed increases in both numbers and range of guillemots in the 20 years following rat eradication. This highlights the importance of robust habitat assessment when considering potential response to removal of predators. Our experience of rat-free islands in Orkney indicates that guillemot nest on the sheer cliffs with fulmar and puffin more likely to take advantage of flatter area on the tops of cliffs.

In addition, the narrative notes ''that there may be other pressures on the population, rats may not be limiting guillemot populations by enough that their removal has positive benefits, at least in the short term.'' This is an important point that should be considered further with information presented on any trends in guillemot numbers or productivity in Orkney or wider region, including Caithness.

For *puffin*, the evidence omits consideration of Handa where there is evidence of benefit to puffin in the periods where rats have been eradicated. In general the positive benefit for puffins (and other burrow nesters) is much stronger and more consistent than for cliff–nesters.

Section 3.2 makes passing reference to examples of multiple species eradication including cat and rat on Hawaii as well as use of predator-proof fencing in New Zealand. As this forms part of the evidence base for the selection of these techniques, we would have expected further narrative to be provided detailing what could be learnt from these examples. The reference cited for the project in Hawaii includes a brief update from 2012, only one year after the fence was constructed, with no further information as to the success of the project.

The conclusion discusses that ''mixed evidence from the studies in the UK are potentially due to other drivers of demographic change, particularly food availability. These strong effects may mask any potential benefit from predator eradication, as populations are in decline anyway.'' Whereby, even if there is an effect, it may be extremely difficult to detect - this is a critical element that will influence the success of the proposed measures and needs to be addressed through monitoring and adaptive management.

Section 4 – Identification of suitable location for compensation

The applicant has used Stanbury et al. (2017) to identify suitable locations across Orkney, ranking these based on hierarchy as set out in EC guidance. While we support the use of Stanbury et al. (2017) as a useful starting point, the review focuses on a wide range of species rather than specifically on seabirds – as such the prioritisation would be different if seabirds were only considered. In addition, if complete island-wide eradication is not being targeted, why has no consideration been given to Orkney Mainland or Scottish mainland sites including East Caithness Cliffs and North Caithness Cliff SPAs?

We agree with the basic premise to focus on colony areas, as both full eradication from such large inhabited islands and subsequent long-term maintenance of predator-free status, would be very

challenging. However, as above, there are substantial fundamental questions around likely efficacy of predator removal, and ability to assess impact. There are also questions as to whether rats in particular could be fenced out and practical / consenting issues around erection and maintenance of predator proof fences; these will be location-specific (e.g. depending on current land use and ownership and also any statutory protection of other features, including habitats that may require grazing management). Potential impacts to non-target species, including Orkney voles, otters and ground nesting birds, where young need to move between habitats, also need to be considered.

Section 5 - Conclusions

We agree that implementation and monitoring plans must be produced to determine how fences would need to be installed and maintained, and how monitoring would show that the applied measure was successful at maintaining the coherence of the UK National SPA network for the feature(s) identified. Furthermore, that an adaptive management plan must be produced to ensure that where monitoring shows the applied measures have not provided the level of compensation required, that additional measures are put in place to maintain the coherence of the UK National SPA network.

<u>Compensation implementation and monitoring plan</u>

We have reviewed the compensation implementation and monitoring plan (document reference: W01-WOW-CON-EV-RP-0072 – 15/09/2023) and provide advice as outlined below.

Section 1 – Introduction

No substantive comments on this section.

Section 2 – Summary of proposed compensation measures

The compensation plan provides 'mixed evidence' for the benefits of the eradication of rats and feral cats – this is especially weak for cliff nesting species and should be acknowledged as such.

Little information is provided to support the statement that 'modern permanent predator-proof fencing usually requires little maintenance and is known to be effective in excluding all mammalian predators (Cooper, 2013).' In reviewing this paper together with Young et al. 2012 we found little additional detail but did note, there are complexities in construction, consenting and on-going maintenance and monitoring of a fence designed to exclude rodents, including smaller immature animals, as well as larger predators. However, the report was written just a year after construction, so it is unknown how effective the fence has proved in the longer term.

Section 3 – Implementation mechanism

- Stage 1 – Pre-compensation desk studies and field studies

From our experience, there is unlikely to be any (sufficient) desk-based evidence of the abundance and distribution of rats and cats on the short-listed islands. Nor is it clear how relevant site-specific information will be obtained from a desk-based approach with respect to nesting habitat of key species, or availability of unoccupied habitat that would support increased number of target species. This should be considered when planning site-based feasibility requirements.

Reference is made in section 3.1.2 to *mitigation* measures – we assume this is a mistake and should read as compensation. Further details would be required as to any integration with the Orkney Native Wildlife Project.

Section 3.1.4 states that ''increased productivity is considered to be one key measure of achievement when reviewing the success of compensation measures aimed at improving the performance of seabird colonies.'' It is unclear what mechanism is being suggested as delivering benefits – adult survival, productivity, increased nesting habitats – the mechanism and evidence base need to match up. Furthermore, any productivity gains would not be evident in recruitment back into colonies for 4-6 years. This needs to be resolved.

Further information is required with respect to the Resource Equivalency Analysis (or equivalent data analysis). Some of the parameters discussed in section 3.1.4 for this analysis may not be available, especially at site level.

We agree with the statement in section 3.1.5 that ''it is likely that sheer cliffs may be inaccessible for rats and cats and therefore compensation methods to remove these invasive mammals from very steep cliffs may not be effective'' emphasising the need for site-specific information.

Assessment will be made, as per section 3.1.5.1, of the presence of all mammals – invasive and native (e.g. footprints, holes, otter and stoat scats etc). Please note, some species are likely to be much more evident / easier to detect than others – e.g. low density rats. Information is required to understand who will carry out the surveys and their relevant expertise.

We welcome the intention to undertake seabird census work in the breeding season to provide up to date whole-colony counts. It would also be useful to take photos to check that interpretation of current breeding locations from winter surveys is correct. Note there is also potential for considerable variation in guillemot (and puffin) counts and as such we would advise establishing and carrying out initial repeat counts of guillemot population plot counts. To note there is long term JNCC monitoring on Orkney Mainland, should site selection considerations extend beyond islands given that full island-wide eradication is not being suggested.

Section 3.1.5.2 discusses fencing feasibility surveys, however it is unclear if this means just the winter habitat surveys or the final sites identified on completion and analysis of the summer seabird counts. We request further clarification on this aspect. The potential feasibility may also be affected by other designations, in particular SPA and SSSIs for ground-nesting birds, plants or habitats such as may be the case on Rousay for example.

Further information is needed to provide assurance that use of predator-proof gates will indeed be rat-proof.

As a minimum, a description should be provided for each of the bullets points in section 3.1.7 to aid understanding of the proposed Operational Plan.

- Stage 2 – Construction of predator-proof fencing

Having reviewed the reference provided in section 3.2.1 (White and Hirons, 2019) we note none of the examples provided are relevant to rats and that the document highlights how challenging it is to keep even larger predators, including cats, fenced out. Fencing specifications are provided in this section but without accompanying narrative to indicate why these have been chosen and what factors have influenced this choice. Information is required on elements such as, what size

of mesh would actually be needed to exclude rats, including juveniles – our experience suggests that a wire mesh of less than 50mm would not be sufficient to exclude rats or stoats for example. Also how potential impacts to non-target species, including waders, gull chicks, Orkney voles etc. have been addressed.

No information is provided on how water crossings would be considered with respect to otters to ensure the fence line does not block access routes to shore; or the risk of otters being trapped within the fence when constructed, if in an area without easy access to the shore. Or to ensure fish movement is not hindered.

No information is provided in terms of severe weather (section 3.2.3) – what type of weather might pose a risk to fence integrity / function? Also, who would be contracted to do this work? And how might this relate to the named specialist contract from New Zealand.

No information is provided on how monitoring would be conducted to check for the presence of mammals within the fenced area in the event of a breach.

We welcome the development of a Communications and Engagement Strategy and note the narrative in section 3.2.4 on dependencies / constraints that the fence line may preclude any other land use and success within the fenced off area. This is a critical aspect that would need to be built into the initial site suitability assessments alongside the work on assessing habitats and seabird data as described earlier. Assurance is needed that the required compensation could be delivered.

- Stage 3 – Mammalian predator control (rat eradication, feral cat trapping and removal)

A licence from NatureScot is required for the release of neutered feral cats into the wild. Existing schemes to trap, neuter, vaccinate and release feral cats require a non-native species licence which includes provision of veterinary expertise for any vaccination / neutering.

No evidence is provided that multiple people walking a line to flush out any cats will be effective. Our experience of feral cats in Orkney is that they are good at avoiding people and the nature of the landscape means there are plenty of potential hiding places. This will need further exploration once site selection is confirmed.

Section 3.3.1.2 indicates that hotspots will be identified quickly and targeted throughout the programme allowing for real time adaptive management – however no information is provided on what the adaptive response would be e.g. higher density bait stations, addition of other forms of traps or something else? Further detail will be required in the adaptive management plan.

In addition, no details are provided to explain how the bait stations can exclude voles while allowing rats to access, given that voles are very much smaller.

Section 3.3.3 acknowledges the presence of other non-predatory species such as rabbits but it is unclear how inspections will address the presence of rabbits. This should be clarified. Narrative is also provided on presence of holts. It is not clear if this is in reference to cat or otter holts. This should be clarified and consideration of otter holts should reflect their protected status (e.g. EPS and or SAC qualifying feature).

- Stage 4 – Post-implementation monitoring and reports

The basic approach with respect to the parameter / information to be recorded and possible methods outlined in this section is acceptable. However, efficacy in terms of ability to detect if predator control is having the desired effect will depend critically on pre-control data and on decisions made as to which areas outside the fenced area(s) might actually provide valid comparisons (e.g. are habitats and densities comparable) and methods. This relates to our earlier comments about use of intensive plots rather than relying solely on whole-colony counts. This needs to be considered further.

Section 3.4.3 states that compensation measures will be in place 2 years prior to operation, however references are cited in the narrative that indicate that cat eradication takes 1-3 years for whole islands and rat eradication (typically 2 or 3 successive winters and likely planning a year in advance). This would suggest up to 4 years are needed. Also, as previously noted, if compensation delivery is dependent on increased productivity, there will be a lag of 4-6 years before birds are recruited back into the population. This aspect requires further consideration.

Section 4 – Adaptive management

The lack of detail in this section means we cannot gauge what adaptive management would look like, to then be able to assess whether this is likely to be sufficient. There is also potential confusion between "remedial" measures (needed to secure the proposed compensation measure) and adaptive management should the compensatory measure be insufficient or ineffective.

It states that "next steps will consist of identifying potential improvements to fenced off areas around compensation colonies, based on potential issues discovered during the monitoring assessment" – further detail on what these improvements might be are required, acknowledging that until site-specific information is gathered, this will be difficult.

A number of alternatives are outlined should the assessment determine that the compensation measures in place cannot be improved, however without any detail on these, we cannot with any certainty judge whether adaptive management could work. Further information is required to provide assurance that suitable adaptive management options are available.

The narrative states, ''…monitoring is expected to be focussed on understanding the mechanisms for colonisation.'' As indicated earlier in reference to section 3, what is the pathway by which predator removal is anticipated to provide compensation for adult mortality? This suggests focus on recruitment of non-breeders to new breeding ledges / sites rather than increasing productivity through reduction in predation. This needs to be clarified.

With respect to the frequency and duration of monitoring and adaptive management, the narrative states ''until such time as it is agreed that the colony is self-sustaining and performing at least as well as other local colonies''. This could be achieved but still not deliver the required level of compensation. Consideration of this is required.

Possible remedial actions are listed in this section. This includes the potential for intensified trapping / removal if there is re-invasion after initial trapping efforts – this should be an integral part of the measures rather than adaptive management, as should public / stakeholder engagement. Also, it is unclear why these measures only refer to trapping (presumably of cats) and not also to rats – as it is not clear whether the intention would be to poison and / or trap in the event of rat incursion into exclusion areas.

APPENDIX E – WEST OF ORKNEY WINDFARM – DOCUMENTATION STANDARDS

As noted in our cover letter, the poor quality of the application and supporting documentation has been problematic in our assessment of the impacts and the provision of our advice. For many of the receptors there has been more than twice the work in reviewing the assessment than if the applicant had followed the guidance provided during pre-application discussions. This has been a significant drawn down on our resources leading to delays in the provision of advice to both this and other developments.

We therefore reiterate our expectations below. Those elements that have particularly hindered our review of the West of Orkney windfarm application submission are provided to aid the applicant's re-submission.

Where we refer below to the EIA Report – this captures all associated documentation including the RIAA.

NatureScot interim advice

Structure & layout

The EIA Report provides the assessment to support the application and should be suitably structured, with appropriate formatting including navigational aids such as, but not limited to, hyperlinks to ensure that the flow of information can be reviewed efficiently and effectively. Consideration should be given to how a reader will access and follow 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 or steps taken. Repeated duplication of text should be avoided through appropriate structuring.

West of Orkney

The layout of this EIA Report has hindered our ability to efficiently assess all relevant aspects in our appraisal because of the poor structure, layout and formatting within and across chapters and with limited and at times no provision of navigation aids or hyperlinks. For example, Supporting Study 12 provides the technical information that underpins the EIA and RIAA ornithological assessment. It is provided as one PDF within which there are 14 separate documents totalling 862 pages. There is no functionality provided to navigate within or between each document, nor has an overarching contents page been provided. This has significantly increased the time taken to review and cross reference the material provided.

Assessment approach

The assessment approach used to inform the EIA Report should clearly follow the direction provided in the Scoping Opinion, or where specific agreement is later reached during the pre-application process. Where the Scoping Opinion references key guidance to follow to inform the assessment, this should be followed and presented. Any divergence needs to be laid out separately but in a structure to aid easy comparison and must always be fully justified.

For clarity and the avoidance of doubt, as the Scottish Government's Nature Adviser, we expect applicants to follow NatureScot guidance and approach for the primary impact assessment in relation to the development of offshore wind projects in Scottish waters. Any alternative

approach that deviates from the Scoping Opinion and our advice, must be consulted on in advance of application submission and subsequent advice followed.

All potential impacts should be assessed and data should be selected to give a balanced view. If data has been collected and the applicant is unsure whether or not an assessment is required then this should be consulted on during pre-application.

West of Orkney

It is disappointing that despite extensive pre-application engagement with the applicant, the approach taken in the ornithology chapter, in particular, has come as a surprise to us, whereby the assessment approach we require to enable us to provide advice was instead provided as an alternative approach, and located in an Annex with no context or supporting narrative.

Use of an alternative approach was discussed during the pre-application period, and we advised the applicant that any alternative approach to the ornithology assessment could be included within the EIA Report in line with the approach taken by Berwick Bank Offshore Wind Farm.

In relation to sandeel and ocean quahog, both of which are PMFs, the numbers recorded during site-specific surveys and thus the potential importance of the offshore Project area to these species was not highlighted during pre-application and as a result have not been sufficiently assessed in the EIA Report.

<u>Transparency & accuracy</u>

Each stage of the assessment process should be transparent to allow the assessments to be replicated. Where specific tools have been used, details of which version and when the assessment was carried out is required and should be noted.

The assessment should be checked through appropriate quality assurance processes to be free from errors. References should be provided to support statements and these should be checked to ensure they are correct.

West of Orkney

There is a systematic lack of transparency as to how many of the assessments have been undertaken. Combined with the scale and propagation of errors, particularly for the ornithological assessment, it has undermined our confidence in the assessment provided to such an extent we are unable to provide final advice until the entire ornithology assessment is redone.

These issues are not limited to the ornithology. For example, across the benthic chapter and various supporting studies it is unclear how many grab samples have been undertaken, how many ocean quahog were recorded and how many of these were adults or juveniles - there was no way to check the data as the relevant appendices referenced in the text (A-H and J) were missing entirely from the EIA Report.

<u>Whole project assessment</u>

The EIA Report should consider all phases of the development to ensure the assessment of impacts is as holistic as possible, including pre-construction activities. Key elements of the assessment should not be deferred to the post-consent period e.g. consideration of scour requirements and seabed clearance, INNS management plan, assessment of vessel movements, SLVIA based on a realistic worst-case design scenario etc.

West of Orkney

The SLVIA is based on a worst-case scenario layout, which we understand will never be built and is therefore not realistic. In addition, although significant effects have been identified by the applicant, due consideration of these is deferred to the post-consent period through the Development Specification and Layout Plan (DSLP). This is inappropriate and was advised during pre-application discussions. We expect any assessment to be based on a realistic worst-case scenario and where significant effects have been identified that these are resolved as far as possible through consideration of mitigation options as part of the application process.

Embedded mitigation

Mitigation measures can often be most successful when they are considered from the outset of the project rather than as a late stage solution. Therefore, in some cases, mitigation can be incorporated as designed in measures that are truly embedded to avoid / reduce impacts e.g. increase in air gap to reduce number of species likely to be at risk of collision. Any embedded mitigation relied upon for the purposes of the assessment should be clearly and accurately explained in detail within the EIA Report. This explanation should also include reasoning for its use and the mechanisms to provide sufficient assurance that it will happen.

West of Orkney

We have concerns as to how the applicant has approached embedded mitigation within the assessment process. In most instances they have referred to embedded measures to reduce impacts e.g. to reduce the magnitude of effect before a conclusion is reached, but as there is insufficient detail and uncertainty in the assessment outputs, and around the commitment to deploy measures, we do not consider this to be truly embedded. For example, in the benthic assessment in relation to Annex 1 stony reef and PMF sands and gravels habitat, the applicant notes that where possible, rock protection will match as much as possible the existing substrate, in terms of size, shape and type of rock etc. in order to minimise habitat alteration. This appears to be used to help justify the impact as being of low magnitude – there are many dependencies that will influence which rock specification is used. This is not a truly embedded mitigation option. There are similar examples in the marine mammal assessment.

Northern Lighthouse Board

Marc MacFarlane

From: Adam Lewis <Adam.Lewis@nlb.org.uk> on behalf of navigation <navigation@nlb.org.uk>
Sent: 06 October 2023 14:57
To: Brendan Campbell; MD Marine Renewables
Cc: Ben Walker; Jane Renwick
Subject: RE: [EXT] West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Attachments: O6_19_846 - NLB Response.pdf

Good afternoon,

Please find attached the NLB response to the above consultation.

Regards

Adam

Adam Lewis
Coastal Inspector
0131 4733197 / [Redacted]

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: West of Orkney Windfarm – S36 & ML Applications (00010559 & 00010561)
Our Ref: AL/OPS/ML/O6_19_846

Mr Brendan Campbell
Licensing Operations Team – Marine Directorate
Scottish Government
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

6 October 2023

ELECTRICITY ACT 1989
The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
The Electricity (Applications for Consent) Regulations 1990

MARINE (SCOTLAND) ACT 2010
The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017

MARINE AND COASTAL ACCESS ACT 2009
The Marine Works (Environmental Impact Assessment) Regulations 2007

Application for Consent Under Section 36 of the Electricity Act 1989 (As Amended), Marine Licences Under Part 4 of the Marine (Scotland) Act 2010 and Marine & Coastal Access Act 2009 to Construct and Operate the West of Orkney Windfarm, Located Approximately 23 Kilometres North of the Caithness Coast and 28 Kilometres West of Hoy, Orkney

Thank you for your e-mail correspondence dated 2nd October 2023 relating to the Marine Licence and Section 36 applications submitted by **Offshore Wind Power Ltd** for consent to construct and operate the **West of Orkney Windfarm** and associated transmission infrastructure, located approximately 23km north of the Caithness coast and 28km west of Hoy, Orkney.

It is noted that the proposed windfarm will comprise up to 125 fixed bottom Wind Turbine Generators (WTG) and up to 5 HVAC Offshore Substation Platforms (OSP). It is also noted that a final landfall position is yet to be decided between locations at either Green Geo or Crosskirk on the Caithness coast.

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To find out more, please see our Privacy Notice at www.nlb.org.uk/legal-notices/

Northern Lighthouse Board have reviewed the documentation associated with the application, with particular reference to the navigational safety elements of the application contained within Chapter 15 – Shipping & Navigation. NLB welcome the Embedded Mitigations detailed within Table 15-12, committing to developing a Lighting & Marking Plan (LMP), Aid to Navigation Management Plan (ANMP), alongside a Navigational Safety and Vessel Management Plan (NSVMP) and Development Specification & Layout Plan (DSLP).

Northern Lighthouse Board note the inclusion within the supporting documentation of the Outline ANMP, Outline LMP and Outline NSVMP, and wish to provide comment on these documents.

- The establishment and dis-establishment of Aids to Navigation across both the Construction and the Operations & Maintenance phases of the development are subject to the Statutory Sanction of the Commissioners of Northern Lighthouses, and NLB request that this process is referenced within future versions of both the ANMP and LMP

Outline ANMP – Section 4.1.2 – Construction Phase Temporary Lighting

- NLB do not require Construction Phase Temporary Lighting to be installed. However, NLB do not object to the installation and use for the purpose of internal navigation within the array area. As such, NLB do not require notification of the installation and/or removal of these lights, and they are not subject to the Statutory Sanction of the NLB. Notification of the presence of this lighting should however, be made within Notices to Mariners and other notifications issued by the project.

NLB also note the inclusion of Section 6 – Maintenance of Aids to Navigation, detailing maintenance, monitoring and availability reporting for the AtoN, and also Section 7 – Emergency Procedures following the failure of an AtoN within the development.

Northern Lighthouse Board also wish to note Section 17.4.4.7, referencing that the project has engaged with NLB in it's role as the operator of the Aids to Navigation on both Sule Skerry and Sule Stack, and discussed the potential impact of the development on helicopter access and operations at the Sule Skerry lighthouse site. The impact on NLB operations at the site was considered to be negligible.

Northern Lighthouse Board have no objection to the proposed West of Orkney Windfarm, and will continue to engage with the applicant with regard to all aspects of navigational safety for the project.

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To find out more, please see our Privacy Notice at www.nlb.org.uk/legal-notices/

Yours sincerely
[Redacted]

Peter Douglas
Navigation Manager

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To find out more, please see our Privacy Notice at www.nlb.org.uk/legal-notices/

North Star

From:	Matthew Gordon
To:	MD Marine Renewables
Subject:	Representations - Offshore Application
Date:	02 November 2023 14:17:00
Attachments:	image670716.png North Star - Letter Of Representation WOOWF.pdf

Dear Sir or Madam

Please find attached letter of support.

Best,

Matt

NORTH STAR

Matthew Gordon | Chief Executive Officer | North Star Shipping Ltd

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24/10/23
The Scottish Government Marine Directorate
Marine Operations Licensing Operations Team
Marine Laboratory,
375 Victoria Road
Aberdeen,
AB11 9DB

FAO: Marine Operations Licensing Operations Team
Reference: West of Orkney Wind Farm allocation for consent

Representation Party: NORTH STAR SHIPPING (ABERDEEN) LTD
Email: matthew.gordon@northstarshipping.co.uk
Postal Adress: 12 Queens Road, Aberdeen, AB15 4ZT

Dear All,

We would like to take the time to thank you for considering our representation of support for the proposed West of Orkney Wind Farm.

As a Scottish business that is already heavily involved in the offshore wind sector we believe the project will have a transformative effect on Scotland, providing tangible Environmental and Economic benefits to Scotland as a Net Zero Nation.

Environmental Benefits

The project is key to delivering decarbonized energy to Scotland in a timely manner where as a nation we should look to encourage projects such as these to deliver our net zero ambitions as a nation. This project based on our experience in the international wind market is very thoroughly thought out and one of Scotland's best chances to fast track offshore wind GW's to Scotland's grid.

Energy Security

It is plain to see over the political events in the past few years that controlling a stable price of energy should be paramount for Scotland to reduce our exposure to international energy pricing and supply and demand shortfalls. This project offers a tangible way to deliver this quickly alongside rising political tensions on a global scale. Its implementation will help deliver sustainable energy priced to Scotland and protect consumers from wider macro economic forces.

A key focus for Scotland in our opinion should be to encourage fast track projects such as these due to potential supply chain bottlenecks forecast from 2030 onwards. Allowing the project to start implementation ahead of other areas in Europe will allow the developers to secure attractive rates for major components and ultimately protect Scotland through assured project delivery and consumers through decarbonized energy systems.

We see a significant competition on an international scale to attract supply chains and investment into projects on the global scale and we as a nation should act quickly to support projects such as these to prevent ourselves as a nation losing out.

Economic Benefits

Throughout the development of the West of Orkney Wind Farm it has been clear to us as a Scottish

company that the project partners in Total Energies and Corio will deliver significant economic benefits to Scotland through this project and will help develop sustainable Scottish supply chains to the highest level possible alongside their associated strike price which balances the deliverable cost of energy vs the wider economic benefits of the project.

Delivering both of these is a very challenging balance to strike from our experience in the UK and wider Europe, we do believe that this is deliverable on this project and we are encouraged to be considered as one of the leading companies positioned to support the project on a long term O&M basis. We are steadfast in our belief that we can deliver significant economic benefits alongside the project partners and from what we have seen from the developers the economic impacts for the region are significant.

Cyclical Economy

Through the projects focus on future STEM engagement and local community focus we believe a significant cyclical economy can be developed around Orkney and the surrounding areas. The value this poses to Scotland becoming an Energy independent nation is paramount in order transition this into an export economy. West of Orkney alongside other flagships projects in Scotland have a great opportunity to support other emerging industries such as hydrogen production and export through nationwide GW production which will allow Scotland to become an energy powerhouse within Europe.

Should we fail to grasp opportunities such as these in a timeline manner we are in no doubt other European nations will deliver this with recent auctions around Europe increasing in frequency and looking to add significant GW's to the European energy mix between 2030 & 2040 which will drive competition for investment and supply chain.

Yours sincerely
Matthew Gordon

Chief Executive Officer
North Star

Nuclear Restoration Services Dounreay

Marc MacFarlane

From: Magnus Davidson <Magnus.Davidson@dounreay.com>
Sent: 20 November 2023 08:17
To: MD Marine Renewables
Cc: David Calder
Subject: NRS Dounreay Representation on West of Orkney Windfarm
Attachments: West of Orkney Windfarm NRS Dounreay Representation Final.pdf

OFFICIAL

Good Morning,

Please find attached a representation to the Scottish Ministers, on the West of Orkney Windfarm, from NRS Dounreay.

I am sending this letter on behalf of David Calder, Head of Sustainability and Socio Economics at NRS Dounreay.

Many Thanks,

Magnus Davidson
Socio Economics Manager

Mobile: [Redacted]
Landline: 01847 803 420

NRS Dounreay

For all our futures

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OFFICIAL

Dounreay division
By Thurso
Caithness
KW14 7TZ

Marine Scotland Licensing Operations Team
The Scottish Government
Marine Laboratory, 375 Victoria Road
Aberdeen
AB11 9DB

To Whom It May Concern,

West of Orkney Windfarm – NRS Dounreay letter of support

NRS Dounreay is a division of Nuclear Restoration Services (NRS) and responsible for the safe and secure clean up the Dounreay nuclear site, located on the north coast of the Scottish mainland, approximately 28km south of the proposed West of Orkney Windfarm.

The Energy Act (2004) sets out a legal duty for NRS Dounreay to have regard for the impact of its activities on communities living near the site. As such, Dounreay undertakes activity to support socio economic initiatives in Caithness and north Sutherland.

Caithness and north Sutherland broadly correlates with the Scottish mainland area which will see the greatest impact from investment in the West of Orkney Windfarm.

NRS Dounreay is therefore supportive of initiatives that facilitate and support the social, economic, and environmental pillars of sustainable development in the area. As such NRS Dounreay is supportive of the West of Orkney Windfarm development and seeks to endorse the development through representation to Scottish Ministers.

The justification for endorsement can be considered against the context of:

Social grounds

The area is home to 26,700 people with just over half living in, the Scottish Government Urban Rural classified, very remote small towns of Wick and Thurso, and just under half living across the very remote rural landward areas. Population forecasts are not available for Caithness and north Sutherland; however, Caithness is forecasted to see an 8% population decrease through to 2030 and a 6% decrease for the whole of Sutherland.

There is an older age profile in the area than regionally and nationally, and the population is ageing at a rate faster than the national average. The average school occupancy for both primary and secondary across the area is currently 58% capacity with a decrease to 51% forecasted through to 2033.

The median Scottish Index of Multiple Deprivation decile rank in the area is five, with 10% of the area's datazones being in the 20% most deprived in Scotland.

It is therefore necessary to retain and attract working age population in the area to halt population loss and grow the working age and childhood population, to ensure social sustainability. New and well paid skilled jobs offer the opportunity to decrease deprivation.

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As such the expectation of 140 full time and permanent jobs located at Scrabster Harbour from the West of Orkney Windfarm will be a significant boost regarding these aims directly with employees and indirectly through associated family groups.

The NDA and NRS Dounreay through socio economic grant funding is supporting Focus North with skills initiatives and the development of the Sutherland Spaceport. This development provides further critical mass to develop multi-generational skills development initiatives from STE(A)M through to cross sector training and new tertiary learning.

Economic grounds

In Caithness and north Sutherland, the total gross value added (GVA) per capita is £23,180 which is three quarters of the Scottish national average. In Caithness and Sutherland health and social care is the largest employment sector (18.8%), followed by accommodation and food services (15.6%), followed by wholesale and retail (12.5%), which all sit above the national average.

NRS Dounreay employees represent 11% of employment in Caithness and Sutherland. A significant supply chain has grown out of the activity at Dounreay with many companies having already diversified into the renewables sector.

There is a higher share of micro-businesses and employment in SMEs compared to the regional and national average. There is also evidence of a significant population of oil and gas workforce in Caithness and north Sutherland, working both out of Aberdeen, and globally.

The West of Orkney Windfarm can therefore lead to positive impacts in respect to economic growth and strengthening and diversification of the local economy through large-scale private sector inward investment. The opportunity for local oil and gas workers to shift to the offshore wind sector, at home, also aligns with Scottish Government policy on just transition.

Environmental

Scotland and the rest of the UK are required to increase low carbon electricity generation and capacity to achieve net-zero, and the offshore wind resource off Caithness and Sutherland can impact positively on these targets with high wind speeds and water depths that can accommodate fixed foundations.

The location of the West of Orkney Windfarm therefore offers immediate advantages compared to other sites on the grounds of utilising existing fixed foundation technology.

Caithness and north Sutherland generate 1,242% of electricity area consumption from large onshore wind and tidal power, exporting the surplus south. Decarbonisation of heat and transport may require further local generation, however large-scale offshore wind developments should be considered, on environmental grounds, at a national scale to achieve Scottish and UK net-zero targets.

NRS Dounreay will also see secondary benefit from increased renewable generation through national reduction in emissions associated with electricity generation, leading to a reduction in scope 2 business emissions through the purchase of electricity.

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Furthermore, the NDA have provided significant socio economic investment in Scrabster Harbour since 2010, with the most recent £5m award, along with £3m from Highlands and Islands Enterprise (HIE), being used to redevelop the St Ola Pier. The commitment from West of Orkney Windfarm therefore represents benefits realisation for funders, including the Scottish Government development agency, HIE.

NRS Dounreay supports the West of Orkney Windfarm proposal on the grounds of sustainable development for Caithness and north Sutherland, aligned to our socio economic remit which is supported through Focus North, wider national net-zero and just transition ambition, and the realisation of joint investment from the Scottish and UK Governments into port infrastructure at Scrabster Harbour.

Yours faithfully,

[Redacted]

David Calder

Head of Sustainability and Socio Economics

T: 01847 803570 | M: [Redacted]

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Offshore Solutions Group

From:	will rowley
To:	MD Marine Renewables
Subject:	West of Orkney windfarm
Date:	22 October 2023 15:54:50
Attachments:	image001.png image002.png West of Orkney Representation - Offshore Solutions Group.pdf

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Dear Sirs

Please find our representation regarding the West of Orkney wind farm

With best regards

Will

Will Rowley, CEO

M: [redacted]
T: +44 (0) 208 123 3783 (UK)
T: +1 (713) 454 7965 (US)
E: will.rowley@offshoresolutionsgroup.com
W: www.offshoresolutionsgroup.com

Offices in UK & USA, members of the Celtic Sea Cluster and DeepWind

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OFFSHORE SOLUTIONS GROUP | INDUSTRIALISATION, MOORING & ANCHORING FOUNDATIONS©

The Scottish Government

Marine Directorate Licensing Operations team

Marine Laboratory, 375 Victoria Road, Aberdeen AB11 9DB 22/10/2023

Re: West of Orkney Windfarm

Dear Sirs,

I would like to make a representation in support of the West of Orkney Windfarm. The grounds of my representation are noted below.

Economic benefits.

The windfarm will deliver significant economic benefit during its construction/development phase and throughout its operational life. It has the potential for transformational impact on local communities and throughout the north of Scotland and the Orkney Islands. The West of Orkney windfarm team have already invested considerable time and monies investigating how more of the construction related activities can be undertaken within local communities and utilising local ports and facilities. The extent of their investigations and efforts gives us confidence that the executed plan will deliver on the promise and potential.

As one of the first major offshore wind farms in the north of Scotland we also believe that it will have a disproportionate positive impact as the 'lightning rod' for strategic investment into ports, facilities and the supporting services and infrastructure, creating skills, capabilities and capacities that will then act as enhanced enablers for subsequent windfarm developments.

This impact will be significant in direct investment and job creation but also indirectly as potential misperceptions on risk and deliverability will be overcome.

Community benefits

The West of Orkney windfarm will have a significant positive impact on local communities through economic impact and challenging misconceptions about the competitiveness of coastal and island communities. The windfarm will utilise a wide range of local services and companies, creating employment but also creating a range of opportunities for local business diversification and growth.

Environmental benefits

The 2GW wind farm will make a positive contribution to supplying 2 million UK households with clean, green electricity.

Offshore Solutions Group are specialists in the delivery of industrial-scale floating wind projects, and we commend the West of Orkney windfarm team for their considerable efforts in progressing the development plan with its high

[redacted]

WILL ROWLEY, CEO, OFFSHORE SOLUTIONS GROUP LTD.

E: will.rowley@offshoresolutionsgroup.com

T: [redacted]

Orbex

Marc MacFarlane

From: Penny Godfrey <penny.godfrey@orbex.space>
Sent: 19 December 2023 15:51
To: MD Marine Renewables
Cc: Ben Walker; Jane Renwick; Marc MacFarlane
Subject: RE: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Attachments: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Orbex Response_191223.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Saved in eRDM

Dear Marc

Many thanks for your email.

Please find attached our response and do advise if you require any further info.

I would be grateful if you can confirm receipt.

Best wishes

Penny

Orbex
6 Innovation Way,
Forres Enterprise Park,
Forres, IV36 2AB

www.orbex.space

MD Marine Renewables
MD.MarineRenewables@gov.scot

19 December 2023

To whom it may concern

WEST OF ORKNEY WINDFARM – SECTION 36 AND MARINE LICENCES APPLICATION – CONSULTATION

Please find below our response in relation to the above consultation.

We note the likely positioning of this development, which will have to be considered and consulted with as part of our marine and airspace procedures currently being developed in our own License Applications to the Civil Aviation Authority (CAA). We expect to cooperate with the project to determine the required operating procedures during, and after, construction and ask the Council to take note of this in setting any planning permission mandatory conditions for operation.

Yours sincerely

[Redacted]

Martin Coates
Chief Executive Officer

Orkney Harbours

Marc MacFarlane

From: Paul Olvhoj <Paul.Olvhoj@orkney.gov.uk>
Sent: 20 November 2023 14:18
To: MD Marine Renewables
Subject: West of Orkney Representation - Offshore Application
Attachments: OICHA West of Orkney consent Letter of Support.pdf

Classification: NOT PROTECTIVELY MARKED

Good Afternoon

Please find attached a letter from our Harbour Master and head of service regarding the offshore application for the West of Orkney Windfarm. We believe that this ties in our own development plans and fits the need detailed in the fourth National Planning Framework (NPF4).

Please do not hesitate to contact us if you require any further information.

Kind regards

Paul Olvhoj FICS
Business Development Manager
Orkney Harbours
Kiln Corner, Kirkwall
Orkney
KW15 1NU
Tel: 01856 873636 Ext 3610
Mob: [Redacted]
E-mail paul.olvhoj@orkney.gov.uk
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Orkney Harbours

ORKNEY ISLANDS COUNCIL
Marine Services
& Transportation

ORKNEY
ISLANDS COUNCIL

Harbour Authority Building•Scapa•Orkney•KW15 1SD
Email: harbours@orkney.gov.uk •Tel: 01856 873636•Website: www.orkneyharbours.com

Date: 20 November 2023

The Scottish Government
Marine Scotland Licensing Operations Team
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

To whom it may concern

I write in support of the West of Orkney Windfarm Offshore application. An application for consent has been made under Section 36 of the Electricity Act 1989; and Marine Licences under Section 20 of the Marine (Scotland) Act 2010 and Section 65 of the Marine and Coastal Access Act 2009.

Orkney has been at the forefront of energy sector innovation for generations, and this first ScotWind development to reach this planning milestone helps to ensure that Orkney, and Orkney's maritime industry, is at the heart of energy sector innovation for many more generations to come.

This in turn will bring economic benefits to Orkney, will support progress towards net zero, unlocking the north of Scotland's contribution to the national electricity needs, contributing to Scottish and UK Government's net-zero targets.

Orkney Islands Council Harbour Authority has developed long-standing relationships with offshore wind developers, and this relationship with West of Orkney has shaped the development of our own Scapa Deep Water Quay project - its size, its design, and its location to support deployment to Scotwind sites.

The evidence presented to accompany West of Orkney Wind's application confirms the compelling case for the siting of the wind farm to the west of Orkney, with a combination of high, consistent wind speeds and water depths that can accommodate the proposed fixed foundations.

Scotland's fourth National Planning Framework (NPF4) (adopted by the Scottish Ministers on 13th February 2023) includes a new quay in Scapa Flow which supports services for the renewable and marine energy and shipping sectors; the collaborative approach between West of Orkney Wind and Orkney Islands Council Harbour Authority over recent years is seeking to maximise the opportunity presented by this and other ScotWind developments to realise the Scottish Government vision of offshore wind as one of the most important economic and net zero opportunities we have.

The further benefits of the project supporting STEM activities is also recognised, for example, West of Orkney Wind is lead partner in a £900k programme of activity over three years with the University of the Highlands and Islands, creating opportunities for local young people to get involved with the project and the wider energy transition in Scotland.

Kind regards

[Redacted]

James Buck FRIN
Head of Marine Services and Transportation and Harbour Master

Orkney Renewable Energy Forum

From:	
To:	MD Marine Renewables
Cc:	
Subject:	West of Orkney Windfarm consultation
Date:	19 November 2023 17:59:50
Attachments:	20231119 WooW Support.pdf

Please find attached response on behalf of OREF to the current consultation.

Kind regards

Director
Orkney Renewable Energy Forum Ltd

Block 2
ORIC
Back Road
Stromness
Orkney
KW16 3AW
19/11/23

The Scottish Government,
Marine Scotland Licensing Operations Team,
Marine Laboratory,
375 Victoria Road,
Aberdeen,
AB11 9DB

Dear Sir,

OREF representation – West of Orkney Wind Farm

Orkney Renewable Energy Forum is a membership organisation that has been seeking to promote energy efficiency and the preferential use of renewables in Orkney for over 20 years. As such we fully support the proposals being put forward for the West of Orkney Wind Farm.

The proposal has multiple reasons to be supported which include:

- The site looks to have been well chosen with good wind resource and not in the way of shipping.
- The development of the site will see significant economic benefit to the local community, and if well handled, allow the further development of the local supply chain to continue to support the farm during construction and through its life.
- In addition, the needs to the project can help support other projects to support the build up of the wind economy such as the Scapa Mega Hub, Flotta Deep Water Port and/or the Scapa Deep Water quay proposals. The energy harvested is unlikely to land in Orkney, however the opportunities to locally produce hydrogen and e-fuels from electricity in Orkney will also be bolstered by such a significant energy source just off our coast.
- On a Net Zero basis, the project will help contribute significantly to the efforts to produce enough power for the nation by adding 2 GW to Scotland's generating fleet which would in effect meet the needs of approximately 2 million Scottish households at present electricity consumption levels.
- In terms of employment, the project will support both local jobs and also apprenticeships and indirect service support jobs.

Altogether this is a thoroughly well-conceived and presented scheme to which OREF offers its full support.

Yours faithfully,

OREF Director.

Port of Cromarty Firth

From:	
To:	MD Marine Renewables
Subject:	West of Orkney Windfarm Representation Letter
Date:	08 November 2023 12:34:03
Attachments:	West of Orkney Representation Letter_Final.docx

Good morning

Please find attached a representation letter in respect of the West of Orkney Windfarm offshore consent application.

If you require any further information, please let us know.

Best wishes,

Strategic Business Development Manager

PORT OF CROMARTY FIRTH

Port Office, Shore Road, Invergordon. IV18 0HD
w: www.cfpa.co.uk

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8th November 2023

The Scottish Government
Marine Scotland Licensing Operations Team
By Email

Re. West of Orkney Windfarm Representation

Dear Scottish Ministers,

We understand that West of Orkney Windfarm have submitted their offshore consent application to Scottish Ministers and that they are the first ScotWind development to reach this important milestone.

As one of the prime ports in Scotland able to support the marshalling work required for this fixed bottom offshore windfarm, we wish to make a representation in support of the development, for the following reasons:

- **Investment Certainty** – Increasing uncertainty in the offshore wind sector, created by the rising costs, challenges around grid connectivity and consenting delays is impacting the supply chain and putting the required investments at risk. Early projects such as West of Orkney are critical to restore confidence and assure the supply chain of a credible future pipeline of work;
- **Economic benefits** – the project will be a key enabler of significant private and public sector investment into infrastructure in the North of Scotland such as ports, transmission infrastructure and additional offtake solutions, which will create wider benefits for the region and de-risk the delivery of future offshore wind projects, including the proposed 14.6GW of floating windfarms;
- **Environmental benefits** – if granted, the wind farm will make a significant contribution towards tackling climate change, through the production of over 2GW of green, clean renewable energy by 2030.; and
- **Energy Security and Net Zero** – the wind farm has the potential to meet the average annual electricity needs of over 2 million households each year, contributing significantly to the Scottish and UK Governments net-zero targets. This is fully aligned with the Port of Cromarty Firth's and the Inverness and Cromarty Firth Green Freeport's decarbonisation plans.

The award of 28GW under the ScotWind seabed leasing round and a further 5.7GW through the INTOG competition to decarbonise the UK's oil and gas sector represent arguably Scotland's largest industrial opportunity.

The offshore wind turbines envisaged for the ScotWind license blocks require very large scale facilities. Current offshore wind turbines (12MW) are already the height of One Canada Square, at Canary Wharf (236m). We are now quoting for 20-30MW turbines, which are even larger. Between 1,500 and 2,000 of these turbines will be required if all of the ScotWind and INTOG sites are built out. This is an extraordinary industrial opportunity for our country and we need to make sure we have the infrastructure in place to deliver these projects from Scotland and secure the jobs here.

As widely reported in Government and industry studies, there are currently no Scottish (or UK) ports with the required scale to support such deployment. In order to provide the necessary port infrastructure to meet the timelines required, construction needs to begin in the next 12-24 months. Early projects, such as West of Orkney, will facilitate infrastructure expansions which will de-risk future fixed and floating windfarm projects.

It's an exciting time for the Cromarty Firth and we would be happy to provide further information to your officials if that would be useful.

Yours sincerely

Chief Executive

Proserv

From:
To: MD Marine Renewables
Subject: Letter of Representation for West of Orkney Windfarm
Date: 13 November 2023 11:53:54
Attachments: Outlook-A picture
Outlook-A drawing .png
Outlook-zn0glevn.png
Outlook-A drawing .png
Outlook-A picture .png
, Letter of Representation for West of Orkney Windfarm - SIGNED.pdf

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Esteemed Ministers of the Scottish Government,

I am writing to formally express my unequivocal support for the West of Orkney Windfarm, a pivotal component of the ScotWind cluster of projects. I have attached my letter of support for your perusal.

I would be grateful for an acknowledgment confirming the successful receipt of this letter of support.

I eagerly anticipate your response and the opportunity to further discuss this significant project.

Thanks,
.

Vice President - Renewables

<!--[if !vml]--> proserv <!--[endif]-->

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M

Artemis House, Gawain Road, Beacon Park, Great Yarmouth NR31 7DU

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Vice President, Renewables
Proserv, Proserv House
Prospect Road, Westhill
AB32 6FJ

Letter of Representation (PAUL COOK, PROSERV):
SUPPORTING the Offshore Application of the West of Orkney Windfarm

November 13th, 2023

For the Attention of the Marine Scotland Licensing Operations Team:

As a senior executive working in the UK's renewables sector for an Aberdeen headquartered company, Proserv, I write to you in strong support of this vital offshore wind renewable energy project, the West of Orkney Windfarm, located around 30km off the Orkney coast in the N1 Plan Option – one of the 15 areas around Scotland which the Scottish Government considers suitable for the development of commercial scale offshore windfarms.

As one of 20 prospective projects announced via the ScotWind leasing round in 2022, the successful rollout of the West of Orkney Windfarm is critical to meeting the anticipated 27.6GW of new generating capacity that this process intends. This application must be approved, and this windfarm subsequently brought on stream, to accelerate the likelihood of Scotland meeting its Net Zero emissions goals by 2045 and for the UK government's ambitious target of increasing offshore wind generation five-fold, to 50GW, by 2030 – little more than six years away.

The West of Orkney Windfarm can play a key role in providing 2GW of clean, sustainable energy, bringing electricity to millions of Scottish homes and, equally, its development consortium is actively pursuing involvement in powering the proposed Flotta Hydrogen Hub which itself has the potential to propel Scotland's low carbon ambitions, spur cutting-edge innovation, create a multiple of skilled jobs and generate green hydrogen for use domestically and for export.

West of Orkney Windfarm will act as a catalyst to major core infrastructure improvements in the North of Scotland, such as transmission networks and port enhancements, due to the significant private and public investment attracted to the project and the wider region. This will inevitably have further substantial knock-on benefits for the local communities, resulting in additional job creation.

Proserv is a leading controls technology company and a notable part of the energy supply chain in Scotland and around the world. Projects such as West of Orkney Windfarm are essential not only for wider global ambitions around climate change and

energy security, but they represent the lifeblood that accelerates supply chain businesses such as ours to harness expertise from oil and gas, forged through the past 60 years, and bring that know-how to the growing new energies of the future.

Scotland is presently a world leader in offshore wind and the West of Orkney Windfarm, alongside ScotWind more broadly, opens the door to genuinely transformational opportunities to engage the nation's natural elements, from deep offshore waters to strong winds, to cement and ensure that success moving forwards.

From Proserv's perspective, this brings opportunities in innovating local content, job creation and providing world-leading exportable skills as other regions (from the US to other parts of Europe and East Asia) expand their own ambitions in offshore wind. The UK has more than 200,000 people who earn their livelihood from oil and gas and the evolution of offshore wind offers a natural transition for so many of these workers, safeguarding and transferring their skills and accumulated knowledge. This is just as vital as the new investment and new technologies that projects like the West of Orkney Windfarm will foster.

As a final case in point. Among several strategic technology partners, Proserv is working with other members of Scotland's supply chain, such as a university spin-out and a software engineering expert, to collaborate on building real-time monitoring and intelligence solutions, including for future use on new and existing windfarms. We have already seen great success with our efforts regarding holistic subsea cable monitoring, for both fixed bottom and floating wind. This shared creative process is enabling Proserv to pull the respective skill sets of these Scottish SMEs into wider, global markets that previously would not have been so immediately accessible.

Such technology development, partnership and innovation are being replicated right across Scotland's supply chain, within multiple areas of expertise, to enable projects like the West of Orkney Windfarm, and others like it in the future, to thrive, generating revenues for investors, operators and the Scottish economy, while providing reliable power generation for decades to come.

It is essential such a key sustainable energy project, opening the way to new jobs, local Scottish content, major regional investment, and crucially representing another step towards eradicating the threats of global warming, is approved.

Many thanks,

Vice President, Renewables

Royal Society for the Protection of Birds Scotland

Marc MacFarlane

From: planning, scotland <scotland.planning@rspb.org.uk>
Sent: 14 December 2023 11:18
To: MD Marine Renewables; Brendan Campbell
Cc: Jane Renwick; Ben Walker; Aly McCluskie
Subject: RE: Re West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Attachments: 20231213 RSPB Scotland WoOOWF Comments.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good Morning,

Please find attached RSPB Scotland's comments on the West of Orkney Offshore Wind Farm

We'd be grateful if you would be able to let us know the next step and timings once available.

Best wishes,

Catherine

Licensing Operations Team
Marine Directorate
By email: MS.MarineRenewables@gov.scot

13th December 2023

Dear Brendan,

APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED), MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND MARINE AND COASTAL ACCESS ACT 2009 TO CONSTRUCT AND OPERATE THE WEST OF ORKNEY WINDFARM, LOCATED APPROXIMATELY 23 KILOMETRES ("KM") NORTH OF THE CAITHNESS COAST AND 28KM WEST OF HOY, ORKNEY.

Thank you for consulting RSPB Scotland on the above proposed development. Regrettably the ornithological section of the application is very poor, and **we have no confidence in the assessment results presented** for several reasons:

- The EIA chapter does not follow the Scoping Advice (or subsequent NatureScot guidance);
- Some steps within the model assessments appear to be missed entirely
- There are in addition several basic copy and paste errors.
- The 'alternative approach' which most closely resembles the parameters discussed at pre-application is obscured in an appendix and again there appear to be missing steps in the presented information.
- There is a lack of logical flow within the information presented and links between documents are confusing.

In summary it is unnavigable, and we question how it has been considered fit for submission.

On 16th November 2023, the results from the fourth Seabirds Count of Britain and Ireland's internationally important populations of breeding seabirds were published[1]. 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 however

[1] Burnell, B. Perkins, A.J., Newton, S.F., Molton, M., Tierney, T.D. & Dunn, T.E. (2023) Seabirds Count A census of breeding seabirds in Britain and Ireland (2015–2021). Lynx Nature Books

Chair of Council: Kevin Cox **President:** Dr Amir Khan **Chair, Committee for Scotland:** Dr Vicki Nash **Director, RSPB Scotland:** Anne McCall
The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654 Registered address: The Lodge, Potton Road, Sandy, Bedfordshire, SG19 2DL

it very important to note that 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. So while RSPB Scotland support the decarbonisation of the electricity supply as a means to tackle climate change, we consider it vital that offshore wind developments are appropriately located and designed. In accordance with best practice and the mitigation hierarchy, adverse impacts must be avoided and any remaining should be minimised as far possible. The EIA is the vital tool to help decision makers consider the environmental impacts of a project and must be fit for this purpose.

As per the EIA regulations, where a Scoping Opinion is provided, the EIA report must be based on that Scoping Opinion and must include the information that may reasonably be required for reaching a reasoned conclusion on the potential significant effects of the proposed development on the environment, taking into account current knowledge and established good methods of assessment. We appreciate the ornithological section is just one part of the EIA, yet based on the information submitted we query whether this requirement has been met.

Missing steps in the modelling mean comprehensive assessments to understand impact predictions as set out in the scoping opinion have not been provided and no confidence can be had to the conclusions. Substantial revision to the EIA is needed and we do not consider it would be reasonable or appropriate to deal with this through additional information requests.

We therefore request the Applicant is encouraged to withdraw the application and resubmit at a later date. Furthermore, withdrawing this Application would reduce confusion for other offshore wind stakeholders and help lessen potential impact uncertainty and cumulative/in-combination assessments required whilst the numbers are in flux.

Within the RIAA, the Applicant has described predicted impacts (e.g. to great black-backed gull population from the East Caithness Cliffs SPA and the kittiwake population at Handa SPA) as

> *'beneath any threshold of significance and de minimis and as such would not materially alter the significance or the likelihood of an adverse effect on the integrity of the SPA'.*

Notwithstanding that we have reservations about the impact prediction calculations as set out above, we do not support the de minimis argument. 'De minimis' implies that something is too minor to merit consideration. The aim of Habitat Regulations Assessments is to ensure protected sites are carefully considered and assessed along with their conservation objectives in light of a proposed development as well as conservation of the International Sites Network. The specific requirement to consider if there could be an adverse effect on the integrity of the specific site and its designation species having regard to its conservation objectives. It must include the precautionary principle. The language used in case law also refers to the "absence" of potential adverse effects. An impact that could result in an adverse effect on the integrity of the site cannot

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2 Lochside View
Edinburgh Park
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BirdLife INTERNATIONAL

The RSPB is part of Birdlife International, a Partnership of conservation organisations working to give nature a home around the world.

Chair of Council: Kevin Cox **President:** Dr Amir Khan **Chair, Committee for Scotland:** Dr Vicki Nash **Director, RSPB Scotland:** Anne McCall
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be dismissed as too trivial to matter. Finally, the cumulative/in-combination requirements are key, as highlighted by Sharpston in Sweetman v An Bord Pleanala[2] there is the need to avoid *"the "death by a thousand cuts" phenomenon, that is to say, cumulative habitat loss as a result of multiple, or at least a number of, lower-level projects being allowed to proceed on the same site".* For these reasons, we request this approach is not taken forward in revised assessments.

A poor application will not be determined quickly. It will also hinder the assessment of cumulative/in-combination impacts for other development. This could complicate Scotland achieving its greenhouse gas reduction and climate change targets in accordance with the Government published strategies. We are also very concerned about the consequences of poor applications on already stretched consultee resources, such as NatureScot expertise This application highlights the importance of important an application submission quality check and crucially, for pre-application advice to be taken into account.

If the application is continued to be determined, we would be grateful for notification when revised information is available.

Should you require any further information or clarification, please do not hesitate to get in contact.

Yours sincerely,

[Redacted]

Senior Marine Conservation Planner
RSPB Scotland

[2] EUR-Lex - 62011CC0258 - EN - EUR-Lex (europa.eu)

Royal Yachting Association

From: Pauline McGrow
To: Brendan Campbell
Subject: RE: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Date: 16 November 2023 15:54:52
Attachments: image004.jpg
image002.png
image006.jpg
image007.jpg
image008.png
image009.png
image010.png
image001.png

Hi Brendan,

I write to inform you that RYA Scotland has no objections to this application.

Kind Regards

Pauline

Pauline McGrow
Senior Administrator
Mob:[Redacted]

Royal Yachting Association Scotland
T: 0131 317 7388
E: pauline.mcgrow@ryascotland.org.uk

Scottish and Southern Electricity Networks Transmission

Marc MacFarlane

From: Reed, Sarah <Sarah.Reed@sse.com>
Sent: 02 November 2023 15:18
To: info@westoforkney.com; MD Marine Renewables
Subject: West of Orkney Wind Farm Scoping Report and Marine Licence Applications (00010559 & 00010561).
Attachments: SHETransmission_WOrkney_Response_02Nov2023.pdf

Good afternoon,

Please see attached our response to the West of Orkney Wind Farm Scoping Report and Marine Licence Applications (00010559 & 00010561).

All the best,
Saz

Saz Reed | Marine Consents Manager
Working Hours: Mon – Thurs 08:00 – 17:20, Alternating Fridays off.
SSEN Transmission
10 Henderson Rd, Inverness, IV1 1SN
M: [Redacted] **| E: Sarah.Reed@sse.com**
ssen-transmission.co.uk

Scottish & Southern Electricity Networks
TRANSMISSION

Scottish Hydro Electric Transmission Plc.
10 Henderson Road
Inverness
IV1 1SN

West of Orkney Windfarm
Offshore Wind Power Ltd
32 Charlotte Square
Festival Square
Edinburgh
Scotland
EH2 3ET

and

Marine Directorate – Licensing Operations Team
By email: MS.MarineRenewables@gov.scot

2nd November 2023

Dear Sir/Madam,

REF: West of Orkney Wind Farm Scoping Report and Marine Licence Application (00010559 & 00010561).

Thank you for the opportunity to respond to the Scoping Report and Marine Licence Application (00010561 & 00010559) associated with the West of Orkney Wind Farm Transmission Infrastructure, situated to the West of Hoy, Orkney.

Scottish Hydro Electric Transmission plc, operating and known as Scottish and Southern Electricity Networks Transmission (SSEN Transmission) welcomes the inclusion of the Orkney HVAC project in the West of Orkney Wind Farm, West Hoy Project and confirms that the Orkney HVAC Marine Licence is currently valid under number 00010072.

We note that final decisions on export cable routes and landfall locations for the Orkney windfarm project have not yet been made. SSEN Transmission is committed to delivering and maintaining vital national transmission infrastructure that connects the North of Scotland, supporting net zero targets and ensuring the reliability of our energy network. SSEN Transmission request that present and future cables, both power and telecoms, are given due consideration and that the provision is maintained for other parties' cables to cross the export cables and the generation site for the above proposed project, ensuring that freedom of the seas is maintained. SSEN Transmission remains committed to working with other legitimate users of the sea in a proactive manner, enabling all parties to deliver successful projects wherever reasonably possible.

SSEN Transmission request information on timings of works to plan for any interactions during construction periods and be consulted on these works in order to identify procedures to reduce the risk of adverse impact to the installation and operation of the Orkney HVAC subsea cable. We suggest that ongoing discussion and consultation between both parties is maintained, and where necessary that proximity and crossing agreements are continued to be developed.

Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460; (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having their Registered Office at No.1 Forbury Place, 43 Forbury Road, Reading, RG1 3JH which are members of the SSE Group www.ssen.co.uk

I would be happy to discuss any questions or concerns in relation to the above.

Yours Sincerely,

[Redacted]

Sarah Reed

Marine Consents and Environment Manager

sarah.reed@sse.com

Scottish Canoe Association

Marc MacFarlane

From: [Redacted]
Sent: 08 November 2023 10:56
To: Brendan Campbell
Cc: access.committee@canoescotland.org; 'Scottish Canoe Association'
Subject: FW: [SCA Access Committee] Fwd: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Attachments: image002.png

Good Morning Brendan
Thank you for the below consultation. This facility is a significant distance off-shore and it is unlikely to affect those engaged in paddlesport. There will, however, be shore-based infrastructure during construction and presumably with cabling. The developers should consider any public access considerations in this regard, although I am not aware of any relevant difficulties.

Other than this we have no comments.

Kind regards

Andy Dorin

Scottish Environment Protection Agency

Marc MacFarlane

From: Planning.North <Planning.North@sepa.org.uk>
Sent: 09 October 2023 14:59
To: MD Marine Licensing
Cc: MD Marine Renewables
Subject: SEPA Ref: 10693 - 00010561, 00010559

OFFICIAL

Dear Brendan Campbell

Marine (Scotland) Act 2010
00010561, 00010559
West of Orkney Windfarm Request for Environmental Assessment (EIA) Scoping Opinion under Regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 Regulation 14 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 and Regulation 13 of The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)
The West of Orkney – 23km North of Caithness Coast & 28km West of Hoy, Orkney Coast

In line with the advice in the Transitional Arrangements for National Planning Framework 4 letter, issued by the Chief Planner, Fiona Simpson, on 8 February 2023 our position and advice given below is based on NPF4 policy.

Thank you for your email consulting SEPA on the above development. We confirm that we have no comment to make on the offshore components of this application and will comment on the onshore components when we are formally consulted regarding either the Section 36 application or the planning applications for such.

I trust these comments are of assistance - please do not hesitate to contact me if you require any further information.

Kind regards,
Nicki Dunn
Senior Planning Officer

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.

OFFICIAL

Scottish Fishermen’s Federation

Marc MacFarlane

From: Mohammad Fahim Hashimi <f.hashimi@sff.co.uk>
Sent: 13 December 2023 20:48
To: MD Marine Renewables
Cc: Brendan Campbell; Elspeth Macdonald
Subject: RE: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Attachments: SFF Response on West of Orkney WF EIA License Application_Final131223.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Brendan

Thank you for sharing the 'West of Orkney Windfarm - Section 36 and Marine Licences Application' consultation opportunity with SFF.

Please find attached the SFF's response on the mentioned consultation for your records.

Should you have any question, feel free contact me.

Best wishes,

Fahim Mohammad Hashimi
Offshore Energy Policy Officer

Scottish Fishermen's Federation
T: +44 (0) 1224 646944 | M: [Redacted]

SCOTTISH FISHERMEN'S FEDERATION

Our Ref: FH-WOWF /0001-23

Your Ref: Email dated: 02/10/2023
Subject: West of Orkney Windfarm - Section 36 and Marine Licences Application

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

T: +44 (0) 1224 646944
E: sff@sff.co.uk

www.sff.co.uk

E-mail: MS.MarineRenewables@gov.scot
13 December 2023

Dear Brendan Campbell,

SFF Response on West of Orkney EIA License Application 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. The chair of NECrIFG has also been consulted and agrees.

First of all, SFF notes from Chapter 5, section 5.2 Design envelope approach, p5 that the Applicant is using Project Design Envelopment (PDE) for this project, therefore the focus of this response is on the current content of the documents provided with this consultation.

General Comments:

Development effects on Commercial Fisheries

SFF notes from V1, Ch14, Commercial Fisheries, that the effects of development on commercial fisheries are negligible/minor, considering the value of fish coming from the development area. However**,** we believe this impact should instead be high/moderate due to the important of the area to Orkney-based vessels and Orkney-based businesses. The nature of the static gear vessels affected means they would be heavily impacted by the site development and would struggle to relocate their fishing efforts elsewhere. We would like to see the impact of development on commercial fisheries to be decided based on number of vessels that rely on the that value than the value itself. Most economists with a connection to the industry estimate that for every job at sea, there are created 5 jobs onshore, so assessing this factor is crucial to understand the socio-economics of the industry.

WTG Layout and Export Cable Route

SFF notes from Ch5, section 5.5.1.2 WTG Layout, p16, the WTG layout will be determined through the design optimisation process (post-consent). This process is iterative, balancing multiple key considerations including fisheries interest. Since the indicative turbine locations cross the 4 degree line, which is a prime fishing ground for our members, we would suggest the mentioned area to be

avoided while laying out WTGs. In addition, we suggest the export cable route should be selected where there are no or minimal fishing activities taking place.

Boulder Clearance

SFF notes from Chapter (Ch) 5, section 5.4.2.2.1 Boulder clearance, p11, that a total area of 30,442,900 m2 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 to avoid 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.

Cable Installation and Burial

SFF notes from Chapter (Ch)5: Project Description, 5.5.3.2 Installation, p29 that the inter-array cable installation can be approached using two methods:

1. Post lay burial through separate cable lay and burial campaigns, or
2. Simultaneous lay and burial through a single campaign.

SFF would prefer the option 2, "Simultaneous cable lay and burial" for all cables (inter-array, interconnector, and export cables) installation since it will create less disruption/obstacles and snagging hazard for fishing vessels. In addition, we recommend a post-construction/cable burial overtrawl sweep along the length of the cables routes is undertaken to ensure fishing activities can resume safely along the cable's corridors.

Cable protection measures

SFF notes from Ch5, section 5.5.3.4 Cable protection of the EIA Report that approximately 20% of inter-array cable, 29% of export cable and 70% of interconnector cable will need external protection (e.g. rock placement, concrete mattresses, grout bags, rock bags, cement bags, sandbags, articulated pipes, cast iron shells and/or bend restrictors). It is also noted that protection will only be used where adequate burial is not achievable or additional protection is required.

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.

Cable Crossing

SFF also note that there will be some cable crossing in IAC area. As crossing points create obstacles and snagging hazards to the fishing industry, we would suggest that the cable crossing should be

avoided as much as possible; otherwise, the design of cables and pipelines crossing points should be consulted with fishing industry to ensure their impacts are mitigated.

Offshore substation platforms (OSPs)
SFF notes from Ch5, section 5.6.1 that maximum of five OSPs will be required for the offshore Project. Since the proposed OSPs have a significant footprint (20,200 each), we request to be consulted on the platforms site selections to ensure they do not sit on any prime fishing ground.

Number of Vessels deployed
SFF notes from Ch5, section 5.9.1 Construction vessel requirements that Maximum number of vessels actively working at Marine Scheme at any one time will be around 30 vessels. Therefore, we propose that a Vessel Management Plan should be devised in consultation with fishing industry and any operations be notified to the fishermen with sufficient advance notice in order for the fishermen to plan their fishing operations accordingly.

Decommissioning
SFF notes from V1, Ch5, section 5.12. Decommissioning, p57 that based on the Scottish Government's Decommissioning of Offshore Renewable Energy Installations in Scottish Waters (Scottish Government, 2022b), it is expected that all relevant objects will be fully removed at the end of their operational life. The Scottish ministers will consider exemptions from full removal only on presentation of compelling evidence that removal would create unacceptable risks to personnel or to the marine environment, be technically unfeasible or involve extreme costs.

SFF would like to see a clear seabed post-decommissioning where no legacy snagging hazards for fishing vessels are left on the seabed. Therefore, we would propose:

1. No objects are left in situ due to cost of removal.
2. Any parts of the unburied cables (even rock protected) including the crossing points are removed to shore.
3. Concrete mattresses and grout bags used in scour protection are recovered and removed to shore.
4. All decommissioned areas are followed by an overtrawl sweep and long-term monitoring to ensure safety of the fishing vessels in those areas.

EMF and Heat Effects
SFF notes from Ch5, section 5.8 Residues, emissions and waste and subsections 5.8.4 Electromagnetic fields (EMF) and 5.8.5 Heat, that subsea cables create EMF and local heat that may have adverse effects on marine life. Given the lack of scientific proofs that reject adverse effects of EMF and cable heat on fish, shellfish and invertebrates, SFF suggest that precautionary measures to be taken while proceeding with offshore wind farms**.**

Construction during Fishing, Spawning and Nursery Seasons
SFF notes from V1, Ch11 Fish and Shellfish, that the array area and cable route/corridor sit on some fishing grounds and spawning and nursery areas (e.g. for cod, herring, mackerel, nephrops, sandeel… etc), SFF would recommend the construction works. particularly seabed levelling activities, be undertaken out with fishing seasons and out with fish spawning and nursery periods to prevent any disruption to fishermen and loss of juvenile fish.

Mitigation measures for the Marine Scheme

SFF appreciates the Applicant's commitment on developing the draft Fisheries Management and Mitigation Strategy (FMMS), provided as part of this EIA documents. We suggest the following to be considered in relation to FMMS:

1. As the FMMS are important documents for the fishing industry, we would like to see them further enriched and approved pre-consent rather than proposed post consent adoption.
2. As the "Mobile Gear Disruption Payments for Construction Phase of Fixed Bottom Offshore Renewable Energy Installations" has been approved both by Moray Firth and Forth and Tay Commercial Fisheries Working Groups, SFF wishes to see the disruption payment for mobile gears be considered along with the "Static Gear Fishery Specific Measures".

SFF recognises the Applicant for considering secondary mitigation for affected vessels, established using an evidence-based approach, through the establishment of co-operation agreements.

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

Scrabster Harbour Trust

From:
To: MD Marine Renewables
Subject: Application by Offshore Wind Power Limited for consent to Construct and Operate a Generating Station - West of Orkney Windfarm
Date: 14 November 2023 16:35:08

I refer to the above application by Offshore Wind Power Limited.

Scrabster Harbour Trust supports the West of Orkney Windfarm development due to the environmental, economic and energy benefits that the project will bring to the Highlands, the rest of Scotland and the UK.

- **Environmental** - The project will exploit the renewable resource present offshore. If consented, the West of Orkney wind farm will make a significant contribution towards tackling climate change, through the production of over 2GW of green, clean renewable energy. The development location is one of the best locations for a highly competitive offshore wind project in Scotland due to the combination of high, consistent wind speeds and water depths that can accommodate fixed foundations.

- **Economic -** All stages of the project delivery from pre-construction and construction through to operations and maintenance will create significant economic benefits creating new high-quality jobs and the opportunity for retention and expansion of employment in the local supply chain.
  - The wind farm will result in a substantial investment into the north of Scotland and has the potential to have a transformational impact on local communities over its lifetime.
  - The project will be a key enabler of significant private and public sector investment into infrastructure in the North of Scotland such as ports, transmission infrastructure and additional offtake solutions, which will create wider benefits for the region and de-risk the delivery of future offshore wind projects.
  - The project will offer sustainable career choices for local youngsters. The project is already engaging with young people regarding the proposed development and wider energy transition through its support of the University of the Highlands & Islands STEM programme.

- **Energy benefits** - The windfarm has the potential to meet the average annual electricity needs of over 2 million households each year, making a significant contribution to national net-zero targets.

TRUST MANAGER
SCRABSTER HARBOUR TRUST, Harbour Office, Scrabster, Caithness, KW14 7UJ
t: m: e: w: www.scrabster.co.uk

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Scrabster Harbour

Sports Scotland

From:
To: MD Marine Renewables
Subject: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Date: 17 November 2023 14:41:06

Good afternoon,

RYAS are aware of project. No objections from **sport**scotland.

| Planner | **sport**scotland
Doges | Templeton on the Green | 62 Templeton Street | Glasgow | G40 1DA

| m:
w: www.sportscotland.org.uk

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Aithris-àichidh – Tha am post-d seo dìomhair agus air a rùnachadh a-mhàin don neach gu bheil e air a sheòladh. Mura h-e thusa an neach sin, feuch gun cuir thu às don phost-d seo is ceangalan sam bith agus leth-bhreacan uile, agus cuir fios sa bhad gu an neach-seòlaidh. Cuimhnich mas e do thoil e gu bheil cleachdadh neo-ùghdarraichte sam bith air an sgrìobhainn seo air a thoirmeasg gu tur.

Mar bhuidheann poblach, tha **spòrs**alba a' tighinn fo riatanasan an Achd Saorsa Fiosrachaidh (Alba) 2002 a thaobh foillseachadh air fiosrachadh sam bith (a' gabhail a-steach conaltradh eileagtronaigeach) a dh'fhaodadh a bhith aige mu chuspair sònraichte, nuair a thèid sin iarraidh air le neach no buidheann sam bith. Ma bhios dragh ann mu dheidhinn seo, is urrainn do **spòrs**alba comhairleachadh mun chùis. Gus teagamh a sheachnadh, bidh co-dhùnadh **spòrs**alba deireannach a thaobh ceistean foillseachaidh is neo-fhoillseachaidh.

Is e **spòrs**alba a tha a' gleidheadh dàta pearsanta a bheir sibh dhuinn ann am puist-dealain sam bith.

Thoiribh an aire gum bi an dàta pearsanta a bheir sibh dhuinn air a stòradh agus/no air a ghiullachd le **spòrs**alba gus seirbheisean a lìbhrigeadh no conaltradh ribh. Feuch gun tèid sibh gu https://sportscotland.org.uk/privacy/

airson tuilleadh fiosrachaidh mu làimhseachadh air an dàta phearsanta agaibh.

Transport Scotland

Marc MacFarlane

From: Alan Kerr
Sent: 18 December 2023 10:15
To: MD Marine Renewables
Cc: Marc MacFarlane; Brendan Campbell; Denise Angus
Subject: A9 - 00010559_00010561 - Orkney Islands - 00010559_00010561 - SECTION 36 - Wind Farm - Hoy, Orkney - Offshore Wind Power Limited - TS Response (outgoing) - 18 December 2023
Attachments: WEST OF ORKNEY WIND FARM - SECTION 36 AND MARINE LICENCE RESPONSE - 18 DECEMBER 2023.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

FAO: Brendan Campbell / Marc MacFarlane

Application Reference: 00010559_00010561
APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED), MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND MARINE AND COASTAL ACCESS ACT 2009 TO CONSTRUCT AND OPERATE THE WEST OF ORKNEY WINDFARM, LOCATED APPROXIMATELY 23 KILOMETRES ("KM") NORTH OF THE CAITHNESS COAST AND 28KM WEST OF HOY, ORKNEY

Hi Brendan / Marc

Further to your consultation request and considering the associated documents, please find attached the Transport Scotland response.

We trust this is satisfactory and will enable you to proceed, but any queries please let us know.

Thanks

Alan.

Alan Kerr
Quality Manager
Development Management
Network Operations
Roads Directorate
T: 0141 272 7400
M: [Redacted]
transport.gov.scot

Transport Scotland, Buchanan House, 58 Port Dundas Road, Glasgow, G4 0HF

TRANSPORT SCOTLAND
CÒMHDHAIL ALBA

Transport Scotland, the national transport agency
Còmhdhail Alba, buidheann nàiseanta na còmhdhail

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Development Management and Strategic Road Safety
Roads Directorate

Buchanan House, 58 Port Dundas Road, Glasgow G4 0HF
Direct Line: 0141 272 7400
Alan.Kerr@transport.gov.scot

TRANSPORT SCOTLAND
CÒMHDHAIL ALBA

Brendan Campbell
Marine Licensing and Consenting Casework Officer
Licensing Operation Team
Marine Directorate
Scottish Government
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

Section 36 Consent Reference: N/A

Marine Licence Reference (1): 00010559

Marine Licence Reference (2): 00010561

Date: 18 December 2023

Dear Brendan,

APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED), MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND MARINE AND COASTAL ACCESS ACT 2009 TO CONSTRUCT AND OPERATE THE WEST OF ORKNEY WINDFARM, LOCATED APPROXIMATELY 23 KILOMETRES ("KM") NORTH OF THE CAITHNESS COAST AND 28KM WEST OF HOY, ORKNEY

Introduction

The consultation request, dated 02 October 2023, has been passed to Jacobs for review, in their role as Development Management Advisor and Auditor to Transport Scotland. The comments provided within this response are informed by the information made available via the Marine Scotland Information website.

Cover Letter

The Cover Letter, part of the documents submitted to supporting the West of Orkney Windfarm Section 36 Consent application and associated Marine Licence applications, confirms that an Environmental Impact Assessment (EIA) Report has been prepared and relates solely to the offshore elements of the development. It also confirms that the onshore transmission infrastructure shall be the subject of a separate application for Planning Permission in Principle to be submitted to The Highland Council.

OBSERVATION 1: Transport Scotland acknowledge that onshore transmission infrastructure shall be the subject of a separate planning application.

OBSERVATION 2: It is also noted that any onshore traffic and transport impacts from the offshore works have not been considered in the supporting EIA.

Offshore Planning Statement

The Offshore Project

The Planning Statement confirms that the development will comprise up to 125 turbines, located at approximately 23 km from the north coast of Scotland and approximately 28 km from the west coast of Hoy, Orkney, and related infrastructure required to transmit the power generated to shore.

OBSERVATION 3: It is noted that the Planning Statement reiterates that onshore traffic and transport impacts from construction related traffic has not been considered.

EIA

Chapter 21 – Onshore EIA Summary

Section 21.2.1 confirms that the onshore Project will comprise:

- Landfall infrastructure landward of Mean Low Water Springs (MLWS) at Greeny Geo and / or Crosskirk, Caithness.
- Up to five Transition Joint Bays (TJBs) at one or across both landfall(s).
- Up to five underground onshore export cables between the TJBs and the onshore substation.
- One new onshore substation at Spittal.
- Temporary compound areas during construction of the onshore substation, TJBs and installation of onshore export cables.
- Temporary haul road and access tracks during construction and equipment installation.
- Seven permanent access tracks (indicative at this stage) across the onshore Project area.

The onshore project area is in Caithness and stretches between the potential landfall areas at Greeny Geo and / or Crosskirk and the new onshore substation to the south of Halkirk, and construction is anticipated to take approximately four years.

Section 21.3 of Chapter 21 confirms that the Onshore EIA Report will include an assessment of the potential access, traffic, and transport effects of the onshore Project. This is accepted.

Conclusions and Recommendations

Transport Scotland acknowledge that the supporting information submitted to support the Section 36 Consent application and associated Marine Licence applications relate solely to the offshore works. However, the EIA and other supporting documentation does not contain sufficient information to allow Transport Scotland to assess the potential significance of traffic and transport effects of the proposed development.

As advised in our Scoping Response dated 22 April 2022 (Marine Scotland reference: SCOP-0012), should there be any road traffic and transport impacts associated with the construction, operation and maintenance and decommissioning of the offshore elements of the proposed development, these should be appropriately considered.

Any assessment of the onshore effects of the offshore works should be scoped with the relevant road authorities, and ultimately undertaken in line with the 2023 Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement.

Should there be a requirement to move abnormal loads on the trunk road network, a supporting Abnormal Loads Assessment (ALA) must be undertaken considering the full extent of the proposed abnormal loads route. The content of any ALA shall address the following:

- Source of movement of abnormal loads.
- The number and dimensions of abnormal loads and transporting vehicle, i.e., weight limits, length etc.
- All trunk roads to be used by abnormal load vehicles.
- A route review should be undertaken considering the horizontal and vertical alignment of the preferred route(s), defining locations where a detailed swept path assessment is required.

- Swept paths analysis are required for turbine blades and turbine tower sections, and associated drawings must be provided for consideration.
- Key organisations to be consulted along the proposed routes should be identified.
- The ALA should include initial consideration of: The maximum axle loading on structures in consultation with the relevant roads agencies; clear heights in consultation with utility providers and transport agencies; roadworks or closures that could affect the passage of the loads; underground services on the proposed route; satisfaction of Police Scotland and Local Authorities to the proposed route(s); lay-by areas that can be utilised for temporary parking; and lay-bys that can be used to let traffic pass slow moving abnormal loads.
- Any other obstructions that may restrict transportation of abnormal loads.
- Details of measures to mitigate the impacts of abnormal load movements.
- Drawings providing details of proposed mitigation measures.
- Geometry and visibility at access point(s) to / from trunk road.
- Abnormal Loads Management Plan introducing measures that could help reduce the impact of abnormal load convoys.

In addition, the following advisory notes should be noted regarding requirements relating to works within the trunk road boundary:

i. The applicant should be informed that the granting of planning consent does not carry with it the right to carry out works within the trunk road boundary and that permission must be granted by Transport Scotland Roads Directorate.

ii. Trunk road modification works shall, in all respects, comply with the Design Manual for Roads and Bridges and the Specification for Highway Works published by HMSO. The developer shall issue a certificate to that effect, signed by the design organisation.

iii. Trunk road modifications shall, in all respects, be designed and constructed to arrangements that comply with the Disability Discrimination Act: Good Practice Guide for Roads published by Transport Scotland. The developer shall provide written confirmation of this, signed by the design organisation.

iv. Any trunk road works will require a Road Safety Audit as specified by the Design Manual for Roads and Bridges.

v. Any trunk road works will necessitate a Minute of Agreement with the Trunk Roads Authority prior to commencement.

vi. To obtain permission to work within the trunk road boundary the developer should contact the Area Manager through the general contact number 0141 272 7100.

vii. The Operating Company has responsibility for co-ordination and supervision of works and after permission has been granted it is the developer's contractor's responsibility to liaise with the Operating Company during the construction period to ensure all necessary permissions are obtained.

Noting the observations set out in this response, based on the information provided, Transport Scotland are unable to assess the potential significance of the traffic and transport effects of the proposed development. Transport Scotland require appropriate supporting information to be made available or confirmation from the applicant that there will be no onshore traffic and transport impacts from the offshore works. Otherwise Transport Scotland would have to recommend refusal of the application due to a lack of supporting information.

We trust this is satisfactory, but should you have any queries please do not hesitate to contact us.

Yours sincerely,

[Redacted]

Alan.Kerr@transport.gov.scot

Transport Scotland

Roads Directorate

cc Owen O'Reilly, Jacobs

United Kingdom Chamber of Shipping

Marc MacFarlane

From: Robert Merrylees <RMerrylees@ukchamberofshipping.com>
Sent: 14 December 2023 15:48
To: MD Marine Renewables; Brendan Campbell
Subject: RE: West of Orkney Windfarm - Section 36 and Marine Licences Application - Consultation - Response Requested by 20 November 2023
Attachments: 231213 UK CoS S36 Response to West of Orkney OWF.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Objective: -1

Dear Scottish Government, Brendan,

Thank you for obliging the Chamber of Shipping with an extension to submitting comments on the abovementioned wind farm. Appreciated and well received.

Please find attached the Chamber's representation to the project for your consideration.

Should you like to have additional information or detail please do not hesitate to contact me.

Kind regards,
Robert

Robert Merrylees
Policy Manager (Safety & Nautical) & Analyst

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UK CHAMBER of SHIPPING

30 Park Street
London
SE1 9EQ

MD Marine Renewables
MD.MarineRenewables@gov.scot

rmerrylees@ukchamberofshipping.com
020 7417 2843

14 December 2023

Dear Sir/Madam

THE UK CHAMBER OF SHIPPING RESPONSE TO APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED), MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 AND MARINE AND COASTAL ACCESS ACT 2009 TO CONSTRUCT AND OPERATE THE WEST OF ORKNEY WINDFARM, LOCATED APPROXIMATELY 23 KILOMETRES ("KM") NORTH OF THE CAITHNESS COAST AND 28KM WEST OF HOY, ORKNEY.

Introduction

The UK Chamber of Shipping (hereafter "the Chamber") welcomes the opportunity to provide submission to Scottish Government on the proposed West of Orkney Wind Farm. The Chamber acknowledges and apologises for the lateness of its submission, but hopes that its representation will nonetheless be taken into consideration.

The Chamber is the trade association for the UK shipping industry and its voice. The Chamber represents more than 200 members, operating in excess of 900 vessels equalling 18 million GT in capacity, trading around the UK and globally. Chamber members operate across the full breadth of the shipping industry, including: containers, dry bulk and tanker trades; passenger transport, comprised of international and domestic cruise & ferry operators, including lifeline services; offshore supply and construction engaged in oil & gas and renewables; towage and specialist operations; along with professional service providers supporting the shipping industry.

The Chamber is a firm advocate for the UK's targets to decarbonise the country and reach net zero by 2050, 2045 in Scotland, a target the Chamber supports the UK Government in pushing the global shipping industry to also adopt. Offshore renewables are becoming a significant source of green energy and will grow considerably, with the Chamber supporting the Government's targets for offshore wind development. The Chamber is furthermore a champion of the vital role the ports and shipping industries play in enabling offshore energy production targets to be achieve, with both industries essential throughout the lifespan of developments across construction, operation & maintenance, and decommissioning phases.

The Chamber's primary concern however is for navigational safety for crew, passenger, cargo, and vessel to be maintained and for the avoidance or minimisation of disruption or economic loss to the shipping and navigation industries with particular regard to approaches to ports and to strategic routes essential to regional, national and international trade, and lifeline ferries.

The Chamber of Shipping Ltd. No 2107383.
Reg. in England at above office address.

The Chamber has concerns a few specific areas on which is provides comment as per the sub-headings.

Offshore Array Area

The Chamber has specific navigational safety concerns relating to two areas of the Offshore Array Area (OAA) for which it strongly recommends for boundary change or commitments. Figure 6.1 in the Navigational Risk Assessment (NRA), shows key coordinates of the OAA for reference.

The Chamber has concerns regarding the north westerly boundary of the OAA, specifically the proximity of A – B to Skule Skerry, and to the easterly boundary of the OAA, specifically its proximity to the IMO Routeing Area to Be Avoided (ATBA).

With regard to the westerly boundary A-B, the Chamber recommends, for safe navigational purposes, a sufficiently wide channel be introduced for navigation between Skule Skerry and the wind farm for commercial vessels to safely transit through. Presently there are two routes, Main Commercial Routes 8 and 12 within the NRA, used by cargo and tanker traffic, which will have their navigational extinguished by the full build out of the wind farm and necessitate deviation to the West of Skule Skerry.

The risk from deviation in relation to Skule Skerry is highlighted in the Hazard Log as an area requiring further examination and mitigation and the Chamber strongly recommends that a Structure Exclusion Zone (SEZ) or other commitment be required of the developer to allow large commercial traffic to pass safely to the East of Skule Skerry. The Chamber does not agree with the developer's position that the mitigation should be managed by *"additional post consent consultation [is required] with the MCA in advance of the DSLP process to ensure the overarching spatial area covered by the layout is appropriate*", and recommends committed mitigation be required as a condition of consent to safeguard navigational safety.

With regard to the eastern boundary, the Chamber is safety concerns that the boundary creates a chokepoint and navigational risk hotspot between the proposed wind farm and Area to be Avoided (ATBA).

Figure 15.2 of the NRA clearly shows vessels avoiding the ATBA and the buildout of the wind farm the full extent of the OAA would require shipping to pass through a narrow channel and conduct additional turns. The Chamber does not consider the 2.4nm channel as proposed by the developer to be sufficient, in particular given the shape of the gap and its introduction of a dog-leg of turns, despite the reported low frequency of channel use.

The ATBA in question is there to reduce the risk to the Orkney Islands or pollution or environmental damage: *"To avoid risk of pollution and severe risk to the environment, all vessels over 5000GT carrying oil or other liquid hazardous cargoes in bulk should avoid the area indicated".* Given the importance of the ATBA for purposes of environmental protection, the introduction of additional navigational risk unnecessarily by the developer is misguided and should be rebutted.

The NRA further recognises, *"that, due to the ATBA to the east of the OAA, vessels which are categorised as being prohibited to enter the ATBA may be less likely to transit to the east of the OAA during adverse weather."* Accordingly, this may unnecessarily close a navigational route in adverse weather and lead to significant deviation to vessels, leading to schedule delays, additional environmental impact through fuel consumption and cost.

The Chamber therefore strongly recommends that a viable channel be maintained for a vessel weather routeing in adverse conditions and as such calls for a greater area of sea-room to be maintained. The Chamber considers this could be achieved through two means, both of which

should be examined for optimality from a navigational risk perspective and for a minimisation of lost wind resource.

The Chamber suggests that a SEZ is introduced to give effect to either the easterly boundary C-D being moved westerly so as to create additional sea room, or that point C be moved toward a parallel with line B-D, again to create additional sea room and reduce the angle of required turns for transiting vessels.

Hazard Log

The applicant/navigational consultant has consulted with the Chamber on the Hazard Log, and the Chamber recognises Table B.1 on page 224 of the NRA as the said document.

The Chamber is however alarmed and concerned with Section 20 Risk Control Log, which includes Table 20.1 which *"presents a summary of the risk assessment of shipping and navigation hazards. This includes (per hazard) the proposed embedded mitigation measures, frequency of occurrence, severity of consequence, and resulting significance of risk."*

Table B.1 records "Displacement (adverse weather routing)" during the Operational phase as being Unacceptable. This the Chamber agrees with. However Table 20.1 refers to this risk as "Tolerable with mitigation". The Chamber considers this to be a concerning down playing of the Significance of Risk through an averaging of the Realistic and Worst Case Scenarios.

The Chamber had expected to see firmer mitigations and commitments in the NRA by the applicant than "Post consent consultation is required with the MCA in advance of the DSLP process". Given the unacceptable nature of the Worst Case Scenario, the Chamber firmly recommends that Scottish Government require the applicant to submit and agree to firm mitigation measures, for example a Structures Exclusion Zone (SEZ) prior to consent.

For there to be unacceptable risks contained within the hazard log, yet for the developer to merely state that post consent consultation will take place is unacceptable and would set a concerning precedent for offshore wind consenting.

Generating Density and Seabed Area

The EIA Chapters state the Offshore Array Area (OAA) is 657 km2 in size, for a windfarm *"with an expected capacity of around 2GW"* according to the West of Orkney Wind Farm website.

Assuming a generating density of 2GW therefore, the site therefore will have a generating density of 3.04MW/km2, by virtue of 2,000MW / 657km2 = 3.044 MW/km2. Such a generating density is very low by present standards for applications being considered for development across the UK and may prima facie be considered an excessive use of seabed area.

As a comparator, the Round Four sites in English waters, have a minimum requirement of 5MW/km2 to reach the Planning Inspectorate. The Chamber fully recognises this proposed development is being constructed under to different planning and licensing regime to those in English waters, however they are of comparable scale, distance offshore, timeline to market, and technological and engineering specification.

Indeed, the Chamber is aware of commitments from some Round Four sites, which have committed to a generating density of more than 7MW/km2. Whether 5MW/km2 or 7MW/km2 these are respectively generating density increase between 66.67% and 133.33% more than it being proposed by West of Orkney, and should automatically be considered a more considerate use of seabed for all receptors, not just shipping and navigation.

It is the Chamber's recommendation that Scottish Government consider requiring the West of Orkney Wind Farm to commit to a 5MW/km2 generating density, which would therefore result in an area of approximately 400km2. The Chamber further recommends that such a condition be reached, not through the applicant leaving empty areas in the interior of the wind farm array, by through not erecting turbines to the full extent of the OAA.

The Chamber is therefore very clear in its recommendations that the mitigations it proposes would in no way impinge upon the developer to be able to obtain the generating capacity for which they are proposing. The Chamber recognises the necessity for large scale deployment of offshore wind to reach net zero however the UK EEZ is finite and unnecessary use of the seabed squanders the valuable wind resource the UK has. Through reducing the seabed area developed by West of Orkney, it means there is available sea-room set aside for other activities, including commercial navigation, along with the potential for more build out of offshore wind in later rounds.

Conclusion

The Chamber thanks Scottish Government for the opportunity to respond and has commented upon the two distinct areas that it believes need firm commitment for additional mitigation for the wind farm not to pose an undue risk to navigational safety.

The Chamber hopes this representation is of value to Scottish Government in its determination of the wind farm and would be happy to provide additional detail or explanation should it be wanted.

Yours faithfully,

[Redacted]

Robert Merrylees
Policy Manager (Safety & Nautical) & Analyst
UK Chamber of Shipping

rmerrylees@ukchamberofshipping.com
0207 417 2843

University of the Highlands and Islands

From:
To: MD Marine Renewables
Subject: West of Orkney Windfarm: University of the Highlands and Islands (UHI) Representation
Date: 20 November 2023 17:28:33
Attachments: image001.png

UHI representation to Scottish Ministers by email to: ms.marinerenewables@gov.scot, on Monday 20th November 2023.

West of Orkney Windfarm: University of the Highlands and Islands (UHI) Representation

From Director of Economic Development and Advancement
UHI House, Old Perth Road, Inverness, IV2 3JH

The West of Orkney Windfarm has reached a major milestone with the submission of its offshore consent application to Scottish Ministers.

The University of the Highlands and Islands (UHI) writes to underline to Scottish Ministers the economic and skills benefits that we believe this project will bring to the Highlands and Islands, Moray and Perthshire UHI regions.

The Scotwind offshore leasing round brings unprecedented opportunity and challenge to the UHI regions. The opportunity to secure new jobs within our communities over the lifetime of the developments of the projects and their supply chain is significant. To realise this potential, we need to work closely and collaboratively with industry to understand, prepare for and deliver future skills requirements, underpinned by investment in our courses and by actions to stimulate the demand of the future workforce in our region.

West of Orkney Windfarm, and OWPL, have taken a proactive stance to addressing this shared challenge from the earliest opportunity. They recognised the need to work with UHI effectively, in a coordinated and strategic way, whilst also recognising the need for local delivery across our UHI Academic Partners in order to have greatest economic and skills impact. They have taken an open and generous approach to sharing their insights and their networks, and through hosting numerous community and stakeholder events have genuinely led the way in instigating truly effective collaborative working.

West of Orkney Windfarm and OWPL were instrumental in creating the collaborative industry partnership between Scotwind developers and UHI. Their leadership in this space has effected new UHI partnerships and levered significant additional funds beyond their own financial contribution to support UHI's outreach and curriculum delivery. To date their engagement with UHI has included a range of commitments:

- In 2021, they signed a Memorandum of Understanding with UHI signalling their intent to work with us over a sustained period, across a range of shared priorities.
- Pre-award, OWPL agreed to meet a short term funding gap in UHIs existing STEM activities from October 2021 to March 2022. OWPL provided support to allow this activity to continue, enabling UHI to maintain STEM engagement activities whilst longer term funding options to develop the programme at scale were being explored.
- Recognising the long term nature of the developments, West of Orkney Windfarm

identified the inspiration of our young people, particularly towards shortage STEM subjects, as a first priority for their practical support to ensure a legacy of economic impact was secured from their project.

Delivering our STEM ambition has been made possible entirely as a result of the generous industry support from and catalysed by West of Orkney Windfarm, for which we are immensely grateful. West of Orkney Windfarm's six-figure funding for UHI enabled us to lever additional financial support from other developers, leading to a £1.2m package of industry funding for UHI that has allowed us to establish a strong network of outreach coordinators across the UHI regions. The assembled team of 14 staff provides the first opportunity to address inspiration at early years and first stage learners on this scale across the region. Beyond the funding, West of Orkney Windfarm support has included hosting and meeting the team, introductions to industry contacts and input into outreach materials.

The STEM Outreach Programme was announced and formally launched in January 2023 by the then First Minister of Scotland, Nicola Sturgeon who welcomed this partnership between UHI and key ScotWind partners to expand STEM education across the north of Scotland. This is the largest package of corporate giving UHI has received and developers like West of Orkney Windfarm are playing a critical role across the UHI regions in local communities from Shetland and Orkney in the North to Argyll in the South. Strengthening local STEM partnerships and networks means we can leverage STEM resources and activities across the whole of the education journey. This ambition is only possible with industry support and with the donated income secured to date, we have been able to plan a 3-year approach to further our STEM ambition.

More widely, West of Orkney Windfarm are committed to supporting the steps required to create a diverse workforce for the future development of offshore wind in the north of Scotland. Through our Memorandum of Understanding they have highlighted other areas we might work together on to ensure opportunity is available to all, including potential to consider the provision of grants and sponsorships and research activities underpinning long term programmes to support a diverse workforce for the future development of offshore wind in the north of Scotland. These programmes would be built on the work undertaken in previous phases and adjusted for circumstances prevailing at the time.

UHI wants to make sure that every young person, across all of our communities, has the chance to be inspired by opportunities across renewable energies, to be able to pursue their studies and to develop skills to achieve careers in the sector. Industry and academia working together like this will make a significant difference to the region and the choices available to our young people now and in the future. Due to the evolving profile of the developments in our region, several variables, including decisions about construction methods, ability to secure local content, grid connections, the future of the Freeport, it will be essential for UHI to continue to work closely with industry over the next few decades.

West of Orkney Windfarm have already made a significant commitment to, and impact on our region, and the specifically the work of UHI, and they have played a critical role in helping us to champion and demonstrate a model whereby a close connection between industry and education can yield a better planned, better resourced response to the skills challenges of economic development.

UHI exists to have a transformational impact on the people, communities and economy of our regions. For us to achieve that, it is vital that we work in partnership with and understand the needs of industry, and we are delighted with how positively the offshore wind sector, and West of Orkney Windfarm specifically, is already engaging with and supporting UHI.

Our role in creating choice and opportunity for our young people to stay and contribute to vibrant businesses and communities, and supporting them to do so, is vital to the future economic growth and sustainability of the region. In rural, dispersed regions, population matters. It matters for ensuring our communities are able to flourish, our business grow, and the confidence and self-belief of our young people in the opportunities available to them increases. It matters too for new sectors like offshore wind where, within Scotwind, the success of projects depends not only on access to natural resources around our coastline, but on access to skills, directly and through the supply chain.

That is why there was a natural fit for West of Orkney Windfarm and UHI to identify our common ground and the ways in which we could work together and why we are confident the economic and skills benefits to be secured from West of Orkney Windfarm will be significant.

Yours sincerely

Director of Advancement and Alumni Engagement | Stiùiriche Adhartas agus Com-pàirteachadh Alumni

Scottish Government
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Marc MacFarlane
Marine Directorate Licensing Operations Team
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

6 March 2024

West of Orkney Wind Farm - Section 36 and Marine Licences Application

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

Diadromous fish

Marine Directorate – Science, Evidence, Data and Digital (MD-SEDD) reviewed the Environmental Impact Assessment Report (EIAR) and have outlined comments below. MD-SEDD note that NatureScot and Marine Directorate - Licensing Operations Team previously advised the applicant that Atlantic salmon should only be addressed by the EIA process. MD-SEDD response is provided only in relation to the EIAR.

The EIAR correctly identifies that the Pentland Firth and nearby waters are likely to be used by salmon migrating to and from their natal rivers and marine feeding grounds. The developer acknowledges that there is potential for connectivity for salmon populations from the 17 Special Areas of Conservation (SAC) listed in the EIAR.

MD-SEDD are content that diadromous fish have been considered correctly and that all the relevant potential impact pathways have also been considered.

The EIA identifies Crosskirk and Greeny Geo as the landfall location for the export cable. The Forss Water which drains into Crosskirk Bay supports salmon and trout populations. Juvenile salmon populations in the Forss Water are undergoing a decline related to summer droughts, and low recruitment as a result of adults infected with Red Skin Disease/Saprolegnia (Youngson 2023). Salmon populations in the Forss Water have been assessed as a category 3 (less than 60% probability of salmon stocks meeting the conservation limit) for 2023 and 2024 (https://www.gov.scot/publications/salmon-fishing-proposed-river-gradings-for-2024-season/pages/gradings-fincastle-to-glenelg/). The proposed piling strategy will provide details regarding the underwater noise mitigation measures specific for salmon and trout populations. The developer discusses the potential impact on salmonid populations associated with noise arising from drilling and dredging activities for the Horizontal Directional Drilling at the Forss Water. The developer gives consideration to the smolt migration period (April and May in the Forss Water) and MD-SEDD advise that the emigration times of salmon smolts for Scotland (Malcolm et al 2015) and salmonid diurnal patterns (Lilly et al 2023) should be considered in relation to all potential sources of underwater noise.

There is considerable uncertainty around the potential for impacts of offshore wind farms on Atlantic salmon, with limited evidence to support impacts or the lack of impacts. Despite this, the EIA contains numerous statements regarding the limited impact of the proposal on Atlantic salmon, without evidence provided to support these statements e.g. section 11.6.2.3.4 in chapter 11 of the EIAR report "…areas of increased predation are expected to be highly localised."

It should also be noted that recently published information highlights the significant decline in wild Atlantic salmon over recent years, suggesting that a precautionary approach to assessments might be necessary.

Provisional catch statistics published by MD-SEDD indicate a reduction in 25% of the annual catch of Atlantic Salmon between 2022 and 2023. The 2023 catch was the lowest ever recorded for returning adult Atlantic salmon (https://www.gov.scot/publications/scottish-salmon-and-sea-trout-fisheries-provisional-statistics-2023/).

The SAC's in Scotland have not had a site assessment since 2011 when numbers of returning adult salmon were significantly higher than they are now. The National

Electrofishing Programme Scotland (NEPS) was developed in response to the declining salmon numbers to provide a more detailed understanding of the salmon populations and the pressures acting on them. Although NEPS was not designed to assess the status of the SACs, an assessment was possible of the larger SACs that were surveyed in the 2021 sampling programme. Only half of those SACs were considered to be in favourable condition (Malcolm et al 2023).

In December 2023 the International Union for the Conservation of Nature (IUCN) downgraded global populations of Atlantic salmon from Least Concern to Near Threatened (https://www.iucn.org/press-release/202312/freshwater-fish-highlight-escalating-climate-impacts-species-iucn-red-list). Nunn et al 2023 used the IUCN Red List of Threatened Species Categories and Criteria to assess the extinction risks and threats to sub populations of salmon, classifying them as Endangered in Britain as well as at a Scottish level.

MD-SEDD advise that a strategic approach to addressing key questions around diadromous fish distribution and migration through the marine environment and potential impact mechanisms is required to increase the evidence base available for planning and consenting decisions.

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Yours sincerely,

Renewables and Ecology Team

Marine Directorate – Science, Evidence, Data and Digital