# marinescotland



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# Marine Scotland - Licensing Operations Team Advice on the Proposed Content of the Environmental Assessment to Support a Marine Licence Application

Scottish Hydro Electric Transmission (per Xodus Group), Subsea Cable Installation – Orkney to Caithness

ADVICE ON THE PROPOSED CONTENT OF THE ENVIRONMENTAL ASSESSMENT TO SUPPORT A MARINE LICENCE APPLICATION TO INSTALL A SUBSEA CABLE WITHIN THE SCOTTISH MARINE AREA.

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# 1. Executive Summary

This is the advice provided by the Scottish Ministers, as to the content and level of detail of information to be provided in an environmental assessment submitted in support of a marine licence application for the proposed installation of the subsea cable between Orkney and Caithness ("the proposed works"). The advice has been requested by Scottish Hydro Electric Transmission ("the applicant").

This advice is based on the information provided in the applicant's request, dated 19 July 2018, for the Scottish Ministers to provide advice. The request included the submission of a report identifying the additional studies required to support a marine licence application in the opinion of the applicant. The Scottish Ministers have consulted on the report provided and the responses received have been taken into account in providing this advice. The matters addressed by the applicant in the report have been carefully considered and use has been made of professional judgement (based on expert advice from stakeholders) and experience in order to provide this advice.

Detailed information is provided in the specialist topic sections. Matters are not recommended for exclusion unless specifically addressed and justified by the applicant and confirmed as being excluded by the Scottish Ministers. Table 1 summarises the Scottish Ministers' advice on whether topics are to be included or excluded.

Table 1: The Scottish Ministers' advice as to whether topics are to be included or excluded.

Tanta	December Inclusion/Evolucion
Topic	Reason for Inclusion/Exclusion
Protected Sites	INCLUDED. Multiple consultees raised potential
	impacts on designated sites which require further
	assessed.
Physical Environment	EXCLUDED. All concerns regarding this receptor will
and Seabed	be addressed through the benthic and intertidal
Conditions	chapter.
Benthic and Intertidal	INCLUDED. European protected bedrock reefs have
Ecology	been identified in the cable corridor and there is the
	potential for priority marine features which require
	further assessment.
Fish Ecology	INCLUDED. Potential impacts on Atlantic salmon from
	underwater noise, suspended sediment and
	electromagnetic field emissions require assessment.
	There is also the potential for disturbance to basking
	sharks.

Ornithology	INCLUDED. Cable corridor crosses three designated sites for birds and there are further potential impacts at landfall locations which require assessment.
Marine Mammals	INCLUDED. The cable is in an area of high usage by pinnipeds and potential for otters along the coastline. Also potential for underwater noise to disturb cetaceans.
Commercial Fisheries	INCLUDED. Cable route is area which is important for commercial fisheries. The potential impacts on this sector require further assessment.
Shipping and Navigation	INCLUDED. Navigational risk assessment and detailed cable burial plan required.
Marine Archaeology	INCLUDED. Potential wrecks and other deposits close to the route so further surveys are required.
Other Sea Users	INCLUDED. Further consultation to identify and mitigate any potential impacts on other sea users required.

For the avoidance of doubt, the provision of this advice by the Scottish Ministers does not preclude the Scottish Ministers from requiring the applicant to submit additional information in connection with any assessment submitted with their application for a marine licence relative to the proposed works.

In the event that an application is not submitted by the applicant for the proposed works within 12 months of the date of this advice, the Scottish Ministers recommend that the applicant seeks further guidance from them regarding the potential to update this advice.

#### 2. Introduction

#### 2.1 Background

2.1.1 We refer to your email of 19 July 2018 requesting advice from the Scottish Ministers on the proposed content of the environmental assessment to be submitted in support of a marine licence application. Your request included a report which contained a description of the location of the works, including a plan sufficient to identify the area in which the works are proposed to be sited, and a description of the nature and purpose of the proposed works and their likely impact on the environment. The Scottish Ministers consider that they have been provided with sufficient information to provide the requested advice.

#### 2.2 The requirement for Environmental Assessment

2.2.1 Whilst standalone submarine cable projects are not listed as Environmental Impact Assessment ("EIA") projects under Schedule 1 or 2 of The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended), the Scottish Ministers require an application for a marine licence to be accompanied by a report of the potential environmental effects of the works including details of the studies carried out, in this case termed an "Environmental Assessment" ("EA"). The Scottish Ministers offer to provide advice on the content of such a report in a similar manner to the scoping opinion provided for EIA projects. This aims to ensure that the required information can be considered at the pre-application stage.

#### 2.3 The content of this advice

- 2.3.1 In regards to your request for a scoping opinion on the proposed content of the required environmental assessment, the Scottish Ministers have considered the documentation provided to date and consulted with the appropriate consultation bodies (see Appendix I) in reaching their opinion.
- 2.3.2 The process is vital in generating an understanding of the biological, chemical and physical processes operating in and around the proposed works' location and those that may be impacted by the proposed activities. We would however state that references made within this document with regard to the significance of impacts should not prejudice the outcome of the marine licence application. It is therefore expected that these processes will be fully assessed in the EA unless advised otherwise.

## 3. Description of works

#### 3.1 Background to the works

3.1.1 The proposal by the applicant is to lay a new HVAC marine cable linking mainland Orkney to mainland Scotland. The proposed landfall locations are at Dounreay in Caithness on the mainland and Warebeth (Billia Croo) on Orkney. The applicant intends to bury the cable along the majority of the route however where burial is not possible, it may be necessary to use other protection measures such as rock placement, concrete mattressing, Uraducting or cast iron half shells. The exact installation method has not been confirmed at the time of providing this advice.

# 4. Aim of this opinion

#### 4.1 The process

- 4.1.1 This pre-application process provides the first identification, and likely significance, of the environmental impacts of the proposal and the information needed to enable their assessment. The process is designed to identify which impacts will or will not need to be addressed in the EA. This includes the range of impacts to be addressed and the method of assessment to be used. The pre-application process also allows consultees to have early input into the application process, to specify their concerns and to supply information that could be pertinent to the works. In association with any comments herein, full regard has been given to the information contained within the documentation submitted with the advice request.
- 4.1.2 The Scottish Ministers have also used this opportunity to provide advice in relation to the licensing requirements, (see Appendix II).

#### 5. Consultation

#### 5.1 The consultation process

- 5.1.1 On receipt of the request documentation, the Scottish Ministers initiated a 30 day consultation process, which commenced on 31 July 2018. The following bodies were consulted:
  - Caithness West Community Council
  - Crown Estate Scotland
  - Dounreay
  - European Marine Energy Centre
  - Fisheries Management Scotland
  - Highland Council
  - Highland Council Harbours Authority
  - · Highland and Islands Enterprise
  - Historic Environment Scotland ("HES")
  - Joint Nature Conservation Committee ("JNCC")
  - Kirkwall Fishery Office
  - Marine Safety Forum
  - Marine Planning and Policy
  - Maritime and Coastguard Agency ("MCA")
  - Ministry of Defence ("MOD")
  - Northern Lighthouse Board ("NLB")
  - Orkney Fisheries Association
  - Orkney Islands Council
  - Royal Society for the Protection of Birds Scotland ("RSPB")
  - Royal Yachting Association Scotland ("RYA")
  - Scottish Environment Protection Agency ("SEPA")
  - Scottish Fishermen's Federation
  - Scottish Natural Heritage ("SNH")
  - Scottish Wildlife Trust
  - Scrabster Fishery Office
  - Stromness Community Council
  - UK Chamber of Shipping
  - Whale and Dolphin Conservation Society

#### 5.2 Responses received

5.2.1 From the list above a total of 11 responses were received from those listed in italics. The purpose of the consultation was to obtain advice and guidance from each

consultee or advisor as to which potential effects should be included or excluded from the EA.

5.2.2 The sections below highlight issues which are of particular importance with regards to the EA and any marine licence application. Full consultation responses are attached in Appendix I and each should be read in full for detailed requirements from individual consultees. The Scottish Ministers expect all consultee concerns to be addressed in the EA unless otherwise stated.

#### 6. Contents of the environmental assessment

#### 6.1 Requirements of the Environmental Assessment

- 6.1.1 The EA must be based on this advice and must include the information that may be reasonably required for reaching a reasoned conclusion, which is up to date, on the significant effects of the works on the environment, taking into account current knowledge and methods of assessment.
- 6.1.2 A gap analysis template is attached at Appendix III to record the environmental concerns identified during this pre-application process. This template should be completed and used to inform the preparation of the EA.

### 6.2 Mitigation

- 6.2.1 Within the EA it is important that all mitigating measures are:
  - clearly stated;
  - accurate;
  - assessed for their environmental effects;
  - assessed for their effectiveness;
  - fully described with regards to their implementation and monitoring, and;
  - described in relation to any consents or conditions.
- 6.2.2 The EA should contain a mitigation table providing details of all proposed mitigation discussed in the various chapters. Refer to Appendix I for consultee comments on specific baseline assessment and mitigation.
- 6.2.3 Where potential environmental impacts have been fully investigated but found to be of little or no significance, it is sufficient to validate that part of the assessment by detailing in the EA:
  - the work that has been undertaken;
  - what this has shown i.e. what impact, if any, has been identified; and
  - why it is not significant.

#### 6.3 Design Envelope

6.3.1 The exact nature of the work that is needed to inform the EA may vary depending on the design choices. Where flexibility in the design envelope is required, this must be defined within the EA and the reasons for requiring such flexibility clearly stated. To address any uncertainty the EA must consider the potential impacts associated with each of the different scenarios. The criteria for selecting the worst case, and the most likely scenario, along with the potential impacts arising from these,

must also be described. The Scottish Ministers will determine the application based on the worst case scenario. The EA will reduce the degree of design flexibility required and the detail will be further refined in a Construction Method Statement ("CMS") to be submitted to the Scottish Ministers, for their approval, before works commence. The CMS will freeze the design of the project and will be reviewed by the Scottish Ministers to ensure that the worst case scenario described in the EA is not exceeded.

# 7. Interests to be considered within the environmental assessment

#### 7.1 Introduction

7.1.1 The report provided by the applicant considered the likely impacts on the environment under the headings and topics addressed below. This section also contains a summary of the main points raised by consultees and the Scottish Ministers' advice on whether each topic should be included or excluded from the environmental assessment. The consultation responses are contained in Appendix I and the applicant is advised to carefully consider these responses and use the advice and guidance contained within them to inform the EA.

#### 7.2 Protected Sites

- 7.2.1 The applicant provides an assessment of all of the designated sites that are likely to be impacted by the works and identifies those for which further assessment is required. The applicant also proposes that the impact on certain qualifying features will be included within the specific chapters of the EA such as benthic ecology, ornithology and marine mammals. However, even with the assessment of the impacts in the specialist chapters, the applicant concludes that a chapter on protected sites should be included in the EA.
- 7.2.2 In their consultation response, the Highland Council support the view that the North Caithness Cliffs SPA and Hoy SPA should be assessed. The RSPB also support the need for further assessment of the impact on protected sites and in particular suggest clarification on the works location relative to the Scapa Flow pSPA. SNH are also of the view that protected sites should be included in the EA and recommends a list of potential impacts which require to be assessed. SNH also recommend that an assessment of cumulative impacts with other projects be carried out as part of the Habitats Regulations Appraisal.
- 7.2.3 The Scottish Ministers agree with the conclusion that protected sites should be included within the EA and this should include an assessment of the potential impacts identified by SNH in their consultation response.

#### 7.3 Physical Environment and Seabed Conditions

7.3.1 The applicant has commissioned geophysical and geotechnical surveys to inform the assessment in their report. No seabed features of conservation importance were identified by the surveys and the impacts on benthic and intertidal ecology will be addressed through other chapters. On this basis, the applicant

proposes that the physical environment and seabed conditions should be excluded from the EA.

- 7.3.2 The physical environment and seabed conditions were not discussed by any of the consultees in their consultation responses.
- 7.3.3 The Scottish Ministers are satisfied by the assessments carried out by the applicant and have concluded that any impacts on this receptor will be covered in the benthic and intertidal ecology chapter and thus physical environment and seabed conditions should be excluded from the EA.

#### 7.4 Benthic and Intertidal Ecology

- 7.4.1 The applicant has identified the presence of European protected bedrock reefs and suggested that there may also be priority marine features in the vicinity of the proposed works. Their report identifies a number of potential impacts of the works on these features. Based on this information, the applicant has concluded that benthic and intertidal ecology should be included within the EA.
- 7.4.2 In their consultation responses, the RSPB and SEPA support the view of the applicant and request that further assessment of benthic and intertidal ecology is carried out. SNH have requested clarity on whether or not priority marine features have been identified along the cable route and emphasised the importance of addressing the impact on these features, should any be identified.
- 7.4.3 The Scottish Ministers concur with the applicant and the views of the consultees that an assessment of the impact on the bedrock reefs is required and in addition, further surveys should be carried out to determine the presence or absence of priority marine features and to assess any impacts should they be identified. On this basis, benthic and intertidal ecology should be included within the EA.

#### 7.5 Fish Ecology

- 7.5.1 In their report, the applicant has addressed the potential impact on fish from direct impact to spawning and nursery habitats, underwater noise, electromagnetic field ("EMF") emissions, potential collision risk for basking sharks and sediment disturbance and concluded that no further assessment is required mainly due to the highly mobile nature of fish. The report also cites the low number of vessels and short duration of the works as reasoning for their conclusion. With relation to the ongoing effects of EMF emissions, the applicant concludes that the cable burial and protection plan, effects from this are unlikely.
- 7.5.2 SNH raised concerns regarding the potential effects of the works on Atlantic salmon from underwater noise, suspended sediment release and electromagnetic

field emissions. Salmon from a number of SACs are likely to pass through the works area and SNH have recommended that further assessment of the impacts on this species is required especially in relation to the cable burial plan. In addition, there is a potential for disturbance to basking sharks to be caused during the installation works which requires further assessment.

7.5.3 The Scottish Ministers agree with the view of SNH that when considering the potential impacts on species specifically protected by legislation or as a feature of a designated site, further assessment is required. Thus fish ecology should be included in the EA to assess the potential impacts on Atlantic salmon and basking sharks.

## 7.6 Ornithology

- 7.6.1 The applicant proposes that ornithology is included within the EA. This is because the proposed cable route crosses three sites designated for the protection of bird species; the Hoy SPA, the North Caithness Cliffs SPA and the Scapa Flow pSPA. They also identify the potential for localised disturbance at each of the landfalls.
- 7.6.2 In their consultation response, the RSPB recommended that ornithology should be assessed in the EA. In addition to the points in the applicant's report, they also request that the potential impact from marine traffic and accidental fuel spillage are assessed. Both SNH and the RSPB request further assessment of the impact on birds at the landfall points. SNH also support the applicant's proposal to assess the impact on designated sites.
- 7.6.3 The Scottish Ministers agree with the applicant and the consultees that ornithology should be included in the EA to assess the impact on designated sites and at the landfall locations.

#### 7.7 Marine Mammals

- 7.7.1 The applicant has identified that there are several species of cetacean which occur within the vicinity of the proposed cable route although the encounter rate is low or very low so they have proposed that there is unlikely to be a significant impact on these species. The applicant's report finds that habitat usage by pinnipeds is very high around the landfall in Orkney and medium in Caithness. On this basis and considering the population decline around Orkney, they propose that additional assessment is required of the impact on pinnipeds. The applicant has also proposed that further assessment of the potential impact on otters is required due to their potential presence along the coastline in the vicinity of the proposed landfalls.
- 7.7.2 In their consultation response, the RSPB support the need for further

assessment of marine mammals. SNH also support the need for assessment of the impact of underwater noise on cetaceans and pinnipeds from vessels and also geophysical surveys and USBL beacons. Further, SNH agree with the applicants report regarding the need for assessment of the impact of the proposals on otters.

7.7.3 The Scottish Ministers agree with the views in the applicant's report regarding the need for further assessment of otters and pinnipeds. In addition, the protected nature of cetaceans means that the impacts of underwater noise on these species requires assessment in line with the SNH advice. On this basis, the Scottish Ministers have concluded that marine mammals should be included in the EA.

#### 7.8 Commercial Fisheries

- 7.8.1 The applicant identifies that the proposed cable route is located in waters that are important to the commercial fishing industry and that the impact of the cable laying activity on the sector requires further assessment. The main impact pathways are identified as temporarily restricting access to the fishing grounds and on the abundance and distribution of target species.
- 7.8.2 In their consultation response, the Scottish Fishermen's Federation emphasise the need for further assessment of the impacts on commercial fisheries including on the use of traps, scallop fishing and the potential loss of access post lay.
- 7.8.3 The Scottish Ministers concur with the applicant and consultees that the potential impact on commercial fisheries requires further assessment and thus should be included within the EA.

#### 7.9 Shipping and Navigation

- 7.9.1 In their report, the applicant identifies that vessel density is low along the majority of the cable route and at the landfall points however there is a short section where shipping density is high due to the fishing and cargo routes which run east to west through the Pentland Firth. As the slow moving cable lay vessel will be transiting perpendicular to the main flow of traffic, there is a risk of collision and the applicant proposes the need to carry out a navigational risk assessment to be included within the EA.
- 7.9.2 In their consultation responses, the RYA, MCA and NLB support the need for a navigational risk assessment and the MCA also request further details of the burial and cable protection plan and how this will be achieved. The RYA highlight the need for further assessment in particular of the activities around the entrance to Hoy Sound and the impact this may have on recreational boaters and also for consideration to be given to the methods of communicating the proposed works to the recreational boating community. In their consultation response, the UK Chamber

of Shipping echo the views of the other consultees with regards to potential impacts on navigation and anchoring activity and the need to see further detail on the cable burial plan.

7.9.3 The Scottish Ministers agree with the applicant and the consultees that a navigational risk assessment should be carried out to address the potential impacts on navigation and anchoring. In addition, a detailed cable burial and protection plan should be submitted to support the navigational risk assessment. On this basis, the Scottish Ministers have concluded that shipping and navigation should be included in the EA.

#### 7.10 Marine Archaeology

- 7.10.1 The applicant has reported that there are no charted wrecks along the proposed route however there are a number of potential wrecks and other deposits close to the route. They therefore propose to carry out a desk based assessment and to collect further survey data to try to identify any potential unknown sites prior to confirming the final routing of the cable. These additional studies should be included within the EA.
- 7.10.2 In their consultation response, HES support the conclusions of the applicant's report and agree with the further assessment methods proposed.
- 7.10.3 The Scottish Ministers support the views of the applicant and the consultees that the proposed assessments and survey should be carried out and the results included in the EA.

#### 7.11 Other Sea Users

- 7.11.1 The applicant identifies a number of other sea users who have interests in the vicinity of the cable route. Following an assessment of each in turn, the applicant concludes that the potential impacts from loss of access and collision require further assessment and should be included within the EA.
- 7.11.2 The Highland Council, in their consultation response, identify the nuclear sites as also having a potential interest and recommend that they are included in the list of other sea users who should be considered by the applicant in their EA.
- 7.11.3 The Scottish Ministers support the need for further assessment and potential consultation with the other sea users that have been identified by the applicant and consultees to try and minimise any impact of the proposed works. On this basis, other sea users should be included in the EA.

# 8. Marine Planning

#### 8.1 Background

8.1.1 The development of projects requiring an environmental assessment should be in accordance with the UK Marine Policy Statement and the National Marine Plan ("NMP").

#### 8.2 The UK Marine Policy Statement 2011

8.2.1 The UK Administrations share a common vision of having clean, healthy, safe, productive and biologically diverse oceans and seas. Joint adoption of a UK-wide Marine Policy Statement provides a consistent high-level policy context for the development of marine plans across the UK to achieve this vision. It also sets out the interrelationship between marine and terrestrial planning regimes. It requires that when the Scottish Ministers make decisions that affect, or might affect, the marine area they must do so in accordance with the Statement.

#### 8.3 Scotland's NMP 2015

8.3.1 Developed in accordance with the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 (as amended), the NMP provides a comprehensive statutory planning framework for all activities out to 200 nautical miles. This includes policies for the sustainable management of a wide range of marine industries. The Scottish Ministers must make authorisation and enforcement decisions, or any other decision that affects the marine environment, in accordance with the NMP. The NMP sets out a presumption in favour of sustainable development and use of the marine environment when consistent with the policies and objectives of the Plan.

#### 8.4 Applicant and Environmental Assessment

8.4.1 It should be noted that any changes produced after the environmental assessment is submitted may require further environmental assessment and public consultation.

#### 9. Judicial review

All decisions may be subject to judicial review. A judicial review statement should be made available to the public.

# 10. Gaelic Language

If the proposed works are located in an area where Gaelic is spoken, the applicant is

Marine Scotland - Licensing Operations Team: Installation of Subsea Cable, Orkney to Caithness

November 2018

encouraged to adopt best practice by publicising details of the proposed works in both English and Gaelic.

Signed

[Redacted]

#### 26 November 2018

Authorised by the Scottish Ministers to sign in that behalf.

**Appendix I: Consultee Responses** 

Highland Council



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

Please ask for / Foighnich airson: [Redacted] Direct Dial / Àireamh fòn: Email / Post-d: Our Ref / Ur n-àireamh-iùil: Your Ref / Ar n-àireamh-iùil: Date / Ceann-là:

[Redacted] [Redacted] 18/03597/PREAPP/SHTU/KAHU

17 August 2018

Dear Sir/Madam

#### MS-LOT CONSULTATION: SHE TRANSMISSION - ORKNEY TO CAITHNESS SUBSEA LINK AT **ORKNEY TO CAITHNESS**

Thank you for consulting The Highland Council on the above application, which was received on 26/07/18. We hope the following comments may be useful.

Section 1.7.2 It would be helpful to know which sections of cable will be surface laid and which will be buried and the corresponding seabed conditions to ensure any impacts on Priory Marine Features are minimized.

Section 1.7.4. Once the chosen landfall site method of installation is determined, an assessment of impacts on the North Caithness Cliffs Special Protection Area will be required. Given the close proximity of the nuclear sites, advice from both establishments may be helpful regarding any potential impacts.

Section 2.1 Notes the nearest conservation site is Hoy SPA; the Caithness Cliffs SPA is also within the proposal area.

If you have any further questions regarding the application please contact the case officer.

Yours faithfully

[Redacted] **Case Officer** 

ePlanning Centre, The Highland Council, Glenurquhart Road, INVERNESS IV3 5NX

Email: eplanning@highland.gov.uk

Historic Environment Scotland



# By email to [Redacted]

[Redacted]
Marine Licensing Casework Manager
Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Longmore House Salisbury Place Edinburgh EH9 1SH

HMConsultations@hes.scot T: 0131 668 8716

> Our ref: AMN/16/R Our case ID: 300030469

> > 28 August 2018

Dear [Redacte

Marine (Scotland) Act 2010
Orkney to Mainland Subsea Link - Orkney to Caithness
Pre-application/scoping consultation

Thank you for your correspondence dated 31 July seeking comments on the above. We have reviewed the details provided and our comments here concentrate on our historic environment interests for scheduled monuments and their settings, category A listed buildings and their settings, World Heritage Sites, gardens and designed landscapes (GDL) appearing in the Inventory, Inventory battlefields and Historic Marine Protected Areas (Marine (Scotland) Act 2010). In this case, our advice also includes matters relating to marine archaeology outwith the scope of the terrestrial planning system.

If you have not already done so, I recommend that you consult the relevant local authority's archaeological and conservation services who will also be able to comment on potential impacts to the historic environment. This may include heritage assets outwith our remit, such as category B and C listed buildings and unscheduled archaeology.

#### Proposed development

We understand that the proposed development comprises the installation of a 220kV alternating current (AC) cable system between Orkney and Caithness. The selected route option for the cable runs between Dounreay on the Scottish mainland and Billia Croo, Warebeth on Orkney. It is intended to bury the subsea cable along the majority of the route with a variety of installation and burial techniques likely to be required along the proposed cable corridor.

#### Scope of assessment

#### Marine assets - potential impacts

In relation to the submitted search area of a 1km wide corridor along the proposed cable route, we can confirm that there are no statutory designation within our remit located within this area.

We welcome that the pre-application report identifies that there are a number of wrecks potentially located within the area covered by the proposed cable route and that there is the potential for impacts on both known and unknown marine historic environment assets along the route. We note that geophysical and geotechnical data will be assessed and

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



used to identify potential unknown assets of archaeological importance within the marine survey corridor. We acknowledge that the intention is to re-route the proposed subsea cable to avoid impacts to any historic environment assets. We welcome the proposal to include a mitigation strategy to eliminate or reduce any adverse impacts to an insignificant level, including a reporting protocol.

The report indicates that additional information is required for Marine Archaeology to support the Marine Licence application for the proposed subsea cable. We agree that further information is required at this stage. We note that a Marine Historic Environment Appraisal will be carried out by ORCA to assess potential effects on marine historic environment assets. We are content that the information summarised in section 3.3.4 should be sufficient to provide an adequate assessment of effects.

We would be happy to provide further comment on the historic environment appraisal as further information becomes available if that would be helpful.

#### Further information

Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at <a href="https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes">historic-environment-guidance-notes</a>. Technical advice is available on our Technical Conservation website at <a href="https://conservation.historic-scotland.gov.uk/">https://conservation.historic-scotland.gov.uk/</a>.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is [Redacted] and they can be contacted by phone on [Redacted] or by email on [Redacted]

Yours sincerely

**Historic Environment Scotland** 

Cc. ms.majorprojects@gov.scot

Maritime and Coastguard Agency

#### [Redacted]

navigation safety <navigationsafety@mcga.gov.uk> From:

19 October 2018 11:47 Sent: To: MS Marine Licensing

Subject: RE: SHE Transmission - Orkney to Caithness - pre-application consulation -

deadline for response 30 August 2018

Dear Marine Scotland.

Thank you for the opportunity to comment on this pre-application consultation by the developer for a sub-sea cable running from Caithness to Orkney. Please accept our apologies for the long delay in reply.

We note that the developer intends to protect as much of the cable route as possible through burial and additional cable protection. At the formal marine licencing stage we would ideally like to see further details on how this will be achieved, including the results of any applicable penetration studies. We would like to remind the developer of the MCA's policy that any consented cable/pipeline protection works must ensure existing and future safe navigation is not compromised. The MCA would accept a maximum of 5% reduction in surrounding depth referenced to Chart Datum but under no circumstances should depth reductions compromise safe navigation.

We welcome the developer's intent to submit a navigation risk assessment, and look forward to being able to review this at the formal marine licencing stage. At this point the MCA is likely to propose a number of our standard conditions and advisories for consideration by Marine Scotland.

Should you have any questions please feel free to get in touch.

Best Regards,

[Red acte

d]

Marine Licencing Lead

Maritime & Coastquard Agency Spring Place, 105 Commercial Road, Southampton, SO15 1EG [Redacted]





Safer Lives, Safer Ships, Cleaner Seas









Ministry of Defence

#### [Redacted]

From: DIO-Safeguarding-Offshore (MULTIUSER) < DIO-Safeguarding-

Offshore@mod.gov.uk>

**Sent:** 01 August 2018 09:08

To: [Redacted] ; MS Major Projects

**Subject:** RE: 20180801-SHE Transmission – Orkney to Caithness - pre-application

consultation -DIO 10043929-O

Good Morning [Redact

Further to your e-mail below and after our investigation, I can confirm that the MOD has No Objection regarding this activity in the locations specified. I hope this information is sufficient for your purposes.

Regards

[Redacted]

Safeguarding Assistant Estates – Safeguarding

Defence Infrastructure Organisation

Building 49, DIO Sutton Coldfield, Kingston Road, B75 7RL

[Redacted]

Website: www.qov.uk/dio/ Twitter: @mod\_dio

Read DIO's blog: https://insidedio.blog.gov.uk/



Defence Infrastructure Organisation

Northern Lighthouse Board

# Northern Lighthouse Board

Your Ref: Orkney – Caithness Subsea Link

Our Ref: AL/OPS/ML/S8\_15\_242

84 George Street Edinburgh EH2 3DA Switchboard: 0131 473 3100 Fax: 0131 220 2093 Website: www.nlb.org.uk

Email: enquiries@nlb.org.uk



[Redacted]
Marine Licensing Casework Manager
Marine Scotland – Marine Planning & Policy
Scottish Government
Marine Laboratory
375 Victoria Road
ABERDEEN
AB11 9DB

01 August 2018

Dear [Redacte

SCOTTISH HYDRO ELECTRIC TRANSMISSION PLC - ORKNEY TO MAINLAND SUBSEA LINK - ORKNEY TO CAITHNESS - PRE-APPLICATION CONSULTATION

Thank you for your e-mail correspondence dated 31st August 2018 regarding the preapplication consultation submitted by Scottish Hydro Electric Transmission plc (SHET), regarding the proposal for a new subsea cable between Orkney and Caithness. It is noted that SHET plan to carry out a full Navigational Risk Assessment for the project, prior to any Marine Licence application.

Northern Lighthouse Board has no objections to this proposal, and recommends the following:

- SCOTTISH HYDRO ELECTRIC TRANSMISSION PLC should liaise with all local marine stakeholders, and the UK Hydrographic Office (UKHO) regarding the promulgation of Notices to Mariners and local Radio Navigation Warnings, stating the nature, location, timescale, and any other appropriate details of any project works.
- Cable Marker Boards shall be installed at all landfall sites these boards shall be diamond shaped, with dimensions 2.5 metres long and 1.5 metres wide, background painted yellow with the inscription 'Cables' painted horizontally in black. The structures shall be mounted at least 4 metres above ground level.
- The Statutory Sanction of the Commissioners of Northern Lights is required for the establishment of these Aids to Navigation. The form to request the Statutory Sanction is available through the Northern Lighthouse Board website.
- Upon completion, all cable routes and landfall positions are to be communicated to the UKHO in order that the relevant charts are updated.

If any further information is required, please do not hesitate to contact the Navigation Department at <a href="mailto:navigation@nlb.org.uk">navigation@nlb.org.uk</a>.

the safety of all
to: ISO 9001:2000 · The International Safety Management Code (ISM) ·

Yours sincerely [Redacted]

Navigation Manager

Marine Scotland - Licensing Operations Team:
Installation of Subsea Cable, Orkney to Caithness

Royal Society for the Protection of Birds



Email: ms.majorprojects@gov.scot

Date: 29th August 2018

Dear [Redacted]

#### SHE Transmission -Orkney to Mainland Subsea Link - Orkney to Caithness

Thank you for consulting RSPB Scotland on the above.

The preferred route option for the subsea cable link will likely pass through the Hoy Special Protection Area (SPA) marine extension, the North Caithness Cliffs SPA marine extension (both designated for internationally important numbers of breeding seabirds as well as peregrine; and red-throated diver in Hoy) and the Scapa Flow pSPA (designated for internationally important wintering populations of sea ducks and divers and breeding rethroated diver). Please note the description in table 2.1 on page 20 of the scoping report is incorrect with regards to Scapa Flow pSPA.

According to the map in figure 2.1 (but not table 2.1), the landfall area also seems to cross the Stromness Heaths and Coast Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI), designated for the special geology and internationally important habitats. There is also potential for the landfall area to cross the Warebeth, Stromness Local Nature Conservation Site (LNCS) which protects small areas of Aeolianite and plants associated with it. This site was not recognised in the scoping document.

Where there is potential for a project have an adverse effect on a Natura site SAC or SPA including proposed sites i.e. pSPAs, an appropriate assessment is required in accordance with the Birds and Habitats Directive to ascertain whether a project will adversely affect the integrity of a site in view of the conservation objectives of the site. Therefore we would like to see robust data collection and analysis work that is fit to produce a Habitats Regulations Assessment (HRA) for Marine Scotland to enable an appropriate assessment of the project to be undertaken.

Due to the large-scale scope of this work and the fact it passes though some designated sites, we agree with the report identifying further assessment work required to support a marine licence application with regards to the following receptors: protected sites, benthic and intertidal ecology, ornithology and marine mammals.

However, we would like to see the assessment address the following additional points to inform a robust HRA.

1. The map in figure 2.1 does not show how the preferred route passes through Scapa Flow pSPA, but the table 2.1 indicates that it is 0km away. We would like to see clearly how the route overlaps with the site. If there is indeed an overlap with the pSPA we would like to see an assessment on the benthic impacts of the cable burial on food resources and availability since the area important for wintering birds as a

Orkney Office 01856 851311 Stromness KW16 3AG Tel 01856 85017612-14 North End Road

www.rspb.org.uk Orkney@rspb.org.uk



Fax

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

- foraging area, in addition to disturbance and displacement during construction and maintenance. This is missing from table 2.3.
- 2. Other potential impacts on birds that should be assessed with regards to cable installation, maintenance and decommissioning include disturbance and displacement from marine traffic on the sea surface. This is missing from table 2.2.
- 3. Any bird survey data collected at sea should be sufficient to characterise day to day variability in bird activity as well as seasonal variability. This is because food supply and weather vary substantially between years and that will impact bird behaviour. We would be happy to review and comment on a more detailed proposal for the ornithological assessment prior to it being undertaken.
- 4. We would also like to see a rigorous assessment of the impacts of an accidental fuel spillage on marine ecology and birds.
- 5. We would like to see further information on the landfall area. We understand this will be addressed in a separate application, however, improved maps of planned infrastructure above and below the mean high water spring could show us where the subsea cable ends and the landfall begins, as currently this is unclear.

Yours sincerely, [Redacted]

Conservation Officer [Redacted]

Royal Yachting Association Scotland



### Royal Yachting Association Scotland

### **RYA Scotland**

Caledonia House 1 Redheughs Rigg South Gyle Edinburgh FH12 9DO

T +44 (0)131 317 7388 E admin@ryascotland.org.uk W www.ryascotland.org.uk

13 August 2018

### [Redacted]

Marine Scotland - Marine Planning & Policy Scottish Government, Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB [Redacted]

ms.majorprojects@gov.scot

## Dear [Redact

## SHE Transmission -Orkney to Mainland Subsea Link - Orkney to Caithness

On behalf of RYA Scotland, I agree with the statement at the end of section 2.9 that further assessment work is required [on the impacts on shipping and navigation]. The distribution of recreational vessel movements in this area is shown on the RYA AIS intensity map that can be seen on NMPi. The actual number of movements can be approximated by multiplying figures by five, as about 20% of recreational vessels in the vicinity of the Pentland Firth transmit an AIS signal. The AIS coverage shows that the key recreational routes are from Cape Wrath and the Kyle of Tongue to Stromness. Cable laying in the Pentland Firth should not pose a significant problem for recreational sailors and the landfall sites are unlikely to pose problems either.

However, consideration will need to be given to the impacts of cable laying in the approaches to Hoy Sound, particularly in the light of the usual 500 m exclusion zone. Fig. 1.2 shows the 104° line of the course into Hoy Sound as described in the Clyde Cruising Club Sailing Directions and Anchorages volume Orkney and Shetland Islands. Accurate timing of approach is essential for safety reasons. Moreover, informing recreational sailors about cable laying there will pose some difficulties as their last port of call might be Stornoway or a harbour further away, and Notices to Mariners are an ineffective way of informing recreational boaters.

A Navigational Risk Assessment, as proposed, will be a good way to consider these issues and identify robust mitigation. RYA Scotland, in the person of myself or one of our local coastwatchers, would wish to contribute to the NRA.

Yours sincerely.

[Redacted]

TPlanning and Environment Officer, RYA Scotland



Marine Scotland - Licensing Operations Team:
Installation of Subsea Cable, Orkney to Caithness

Scottish Environment Protection Agency



Buidheann Dìon Àrainneachd na h-Alba

Our ref:

PCS/160537

Your ref:

If telephoning ask f[R [Redacted]

29 August 2018

[

[Redacted]
Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

By email only to [Redacted]

Dear [Redacte

Marine (Scotland) Act 2010
Report identifying additional studies required to support Orkney - Mainland marine licence application
Orkney to Mainland Subsea Link - Orkney to Caithness

Thank you for your consultation email which SEPA received on 31 July 2018.

You have asked that we provide comments on a 'Report identifying additional studies' required to support Orkney – Mainland subsea cable marine licence application. You further state that the report details what environmental impacts the applicant will consider in more detail to support the marine licence application. We have reviewed the report and have the following comments to make.

We understand that the cable route options are limited due to challenge of site. The route that is proposed/suggested is a pragmatic one where a number of installation options have to be kept for consideration. We advise that any impact is minimised impact where possible.

Section 2.4.2. of the Scoping report by Xodus Group – 'Orkney – Mainland Subsea Cable Link' indicates that developer will have to undertake further work (to support an application for a Marine licence) to consider impacts on the benthic and intertidal ecology so has recognised that more information is needed. Report states that a full assessment of impacts to benthic and intertidal ecology will be undertaken.

We will be happy to review these assessments when they are undertaken.

## Regulatory advice for the applicant – with regards to the land fall elements

## 1. Regulatory requirements

1.1 Authorisation is required under The Water Environment (Controlled Activities) (Scotland)





Regulations 2011 (CAR) to carry out engineering works in or in the vicinity of inland surface waters (other than groundwater) or wetlands. Inland water means all standing or flowing water on the surface of the land (e.g. rivers, lochs, canals, reservoirs).

- 1.2 Management of surplus soils may require an exemption under The Waste Management Licensing (Scotland) Regulations 2011. Proposed crushing or screening will require a permit under The Pollution Prevention and Control (Scotland) Regulations 2012. Consider if other environmental licences may be required for any installations or processes.
- 1.3 A Controlled Activities Regulations (CAR) construction site licence will be required for management of surface water run-off from a construction site, including access tracks, which:
  - is more than 4 hectares,
  - is in excess of 5km, or
  - includes an area of more than 1 hectare or length of more than 500m on ground with a slope in excess of 25°

See SEPA's <u>Sector Specific Guidance: Construction Sites (WAT-SG-75)</u> for details. Site design may be affected by pollution prevention requirements and hence we strongly encourage the applicant to engage in pre-CAR application discussions with a member of the regulatory services team in your local SEPA office.

- 1.4 Below these thresholds you will need to comply with <u>CAR General Binding Rule 10</u> which requires, amongst other things, that all reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment. The detail of how this is achieved may be required through a planning condition.
- Details of regulatory requirements and good practice advice for the applicant can be found on the <u>Regulations section</u> of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the regulatory services team in your local SEPA office at: Norlantic House, Scotts Road, Hatston, Kirkwall, Orkney, KW15 1GR, Tel: 01856 871080

If you have any queries relating to this letter, please contact me by telephone on 01224 266604 or e-mail at planning.aberdeen@sepa.org.uk

Yours sincerely

[Redacted] Senior Planning Officer Planning Service

E copy to: ms.majorprojects@gov.scot

### 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.

Scottish Fishermen's Federation

### [Redacted]

From: [Redacted]

**Sent:** 30 August 2018 10:21

To: [Redacted]

Cc: MS Major Projects

**Subject:** RE: SHE Transmission – Orkney to Caithness - pre-application consulation -

deadline for response 30 August 2018

Categories: Orange Category

### Dear Sir/ Madam,

The Scottish Fishermen's Federation (SFF) is pleased to respond to this application on behalf of the 400 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.

Whilst the report clearly acknowledges that traps are the most common gear in the relevant ICES square, 69% of total effort, neither the chapter on Fish Ecology or the one on Commercial Fisheries seems to address these fisheries adequately.

Furthermore, as Scallops also seem to be high value for this square, the SFF would also expect to see them addressed in terms of sediment redistribution and any interference with spat.

The loss of access post lay should also be considered in case species do not return to the corridor.

Best regards, [Redacte

Scottish Natural Heritage



### BY EMAIL

[Redacted]
Marine Licensing Casework Manager
Marine Scotland - Marine Planning & Policy
Scottish Government
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

29 August 2018

Dear [Redacte

SHE Transmission – Report identifying additional studies required to support Orkney – Mainland subsea cable marine licence application

Thank you for consulting us on the report identifying additional studies required to support the Orkney – Mainland subsea cable marine licence application. We welcome this opportunity to provide advice on the environmental assessment of this strategic project. The following comments are set out using section headings from the report identifying additional studies (referred to subsequently as "the report").

### **Project Description**

The report indicates a number of uncertainties regarding installation techniques, including at landfalls, which are unlikely to be clarified until the contract for installation is awarded. These uncertainties will limit the ability of the proposed studies to accurately assess environmental impacts. We therefore suggest that the assessment is based on realistic worst case scenarios and is informed by experience of installation of similar subsea cables.

### 2.2 Protected Sites

Table 2.1 provides a list of protected sites with marine components located within the vicinity of the proposed cable route. Annex 1 to this letter provides SNH's advice on the protected sites which, in our view, should be considered in the environmental assessment.

### Potential impacts on SPAs

Table 2.2 of the report sets out potential impacts on features designated within protected sites and is focused on SPA and pSPA features. We recommend that the following potential impacts on these features are assessed:

Scottish Natural Heritage, Alexander Fleming House, 8 Southfield Drive, Elgin, IV30 6GR. Tel: 01343 555050 Facs: 01343 546406 www.nature.scot

Taigh Alexander Fleming, 8 Slighe Southfield, Eilginn IV30 6GR Fòn: 01343 555050 Facs: 01343 546406 www.nature.scot

### Installation:

- Disturbance and/or displacement of qualifying interests due to vessel presence, noise or light pollution
- Disturbance and/or displacement of qualifying interests due to increased turbidity in the water column
- Indirect effects on qualifying interests due to changes in distribution of prey items

Operation (Depending on anticipated frequency of repair and maintenance activities):

 Disturbance and/or displacement of qualifying interests due to vessel presence, noise or light pollution during maintenance activities

Further advice on potential impacts is provided in Annex 2

### Potential impacts on SACs

As indicated in section 2.5 of the report, there is evidence to suggest that Atlantic salmon use the Pentland Firth as a key migration route between freshwater rivers on the north and east coast of Scotland and deeper offshore waters. These will include Atlantic salmon from a number of SACs designated for this species. We recommend that the impact of the proposal on these sites (listed in Annex 1) is assessed. We recommend that the following potential impacts on these features (migrating adult salmon and post smolts) are assessed:

### Installation

- Disturbance to migrating Atlantic salmon from underwater noise generated during installation
- Displacement of migrating Atlantic salmon due to suspended sediment released during installation

### Operation

• Effect of EMF on migrating Atlantic salmon passing over the cable route

The report indicates that the cable will be buried or protected for the majority of its route, although it does not appear to specify the burial depth. We note that the previous Environmental Appraisal indicated a target minimum burial depth of 1 m. We would encourage continuation of this minimum target burial depth to minimise exposure of Atlantic salmon and other electro-sensitive species to EMF. The wording used in the report implies that some sections of the cable will not be buried or protected – we suggest that the extent of unburied or unprotected cable should be quantified and effect of the resulting increased exposure to EMF assessed.

### 2.4 Benthic and intertidal ecology

We agree that further assessment of impacts on benthic and intertidal ecology will be required. It is not clear from the report whether Priority Marine Features (PMFs) have been recorded during survey of the cable route. If PMFs have been recorded, impacts on these features should be assessed.

### 2.5 Fish Ecology

See comments above regarding SACs designated for Atlantic salmon. There is potential for disturbance to basking sharks during installation and so a basking shark licence application is likely to be required.

### 2.6 Ornithology

Section 2.6.1 summarises the legal protection given to wild birds in the UK, with particular emphasis given to birds listed on Schedule 1 and 1A of the Wildlife and Countryside Act. Birds not listed on these schedules are also protected – further details of this protection can be found in SHE Transmission's Species Protection Plan for birds and the SNH website <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/protected-species/protected-species-z-guide/protected-species-birds">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/protected-species/protected-species-z-guide/protected-species-birds</a>

Our advice on potential impacts on SPA qualifying species is provided below in our comments on the proposed Nature Conservation Appraisal.

As noted in the report, there is potential for localised disturbance to birds at each of the landfalls and it is suggested that impacts above MHWS will be addressed as part of a separate planning application and study. We would welcome further clarification on whether this planning application and study will cover installation activities, such as Horizontal Directional Drilling (HDD). In other projects installation activities have not required a planning application as they have been classed as permitted development. Unless these installation activities will be covered by a planning application and study we recommend that they are assessed as part of the marine licence application study.

Installation at the Dounreay landfall could cause disturbance to the seabird qualifying species of the North Caithness Cliffs SPA and this potential impact should be assessed. Depending on the location of the HDD drilling points, installation at this landfall could also cause disturbance to wintering Greenland white-fronted and greylag geese which are qualifying interests of the Caithness Lochs SPA. The Dounreay decommissioning Phase 3 EIA noted these species foraging around NC97556640. A breeding colony of Arctic terns (not an SPA feature) may also be present in the vicinity of the Dounreay landfall and could

be disturbed during installation. Pre-construction breeding bird surveys and mitigation measures may be required.

### 2.7 Marine mammals

Advice on additional data sources regarding marine mammals is provided in Annex 3.

Section 2.7.2 indicates that the main potential impact on cetaceans and pinniped is disturbance due to underwater noise from vessels involved in the installation of the subsea cable and cable trenching activities. Noise from geophysical surveys and USBL beacons should also be assessed.

For the assessment of the impact of underwater noise on cetaceans we recommend thresholds for injury published in 2016 by the US National Oceanic and Atmospheric Administration (NOAA) <a href="https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance">https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-acoustic-technical-guidance</a>. We consider that these thresholds reflect the most comprehensive and up to date scientific knowledge relating to the risk of auditory injury to marine mammals.

We agree that further assessment work is required to assess the potential impacts of the proposal on otters. The Dounreay decommissioning Phase 3 EIA recorded considerable otter activity to the east of the cable route and the Orkney landfall is in an area which provides suitable habitat for foraging and breeding, resting or sheltering places. The SHE Transmission Species Protection Plan on otters provides guidance on licensing requirements and further guidance can also be found on the SNH website: <a href="https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/otters-and-licensing">https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/licensing/species-licensing-z-guide/otters-and-licensing</a>

## 3.3.1 Nature Conservation Appraisal

The report indicates that the purpose of the Nature Conservation Appraisal (NCA) will be to provide Marine Scotland with the information required in order to undertake an HRA and NCMPA appraisal if required. To assist with this process we have provided advice in Annex 1 on the Natura sites which, in our view, should be considered in an HRA, we have also provided preliminary advice on whether there is potential for likely significant effects on these sites.

In summary, we consider that the proposal is likely to have a significant effect on all SPAs/pSPAs crossed by the cable route or within 5km of the cable route, although not all of the qualifying species of each SPA/pSPA are likely to be affected.

Information required to inform the HRA for the SPAs/pSPAs which should be included in the NCA includes:

- Cable installation techniques;
- Number and type of vessels;
- Speed of vessels;
- Time-scales of cable installation, including likely duration of activity within SPAs/pSPAs;
- Season the cable surveys and installation are expected to take place;
- How often maintenance checks and/or repair are anticipated;
- Numbers and status of qualifying species within the SPAs/pSPAs
- Distribution of qualifying species within the cable corridor area;
- Sensitives of the qualifying species to disturbance;
- Quantification of the amount of overlap between the SPA and the cable corridor;
- Likely effects on prey species as a result of the cable installation and operation;
- Cumulative and in-combination effects within and between projects being carried out at the same time; and
- Mitigation measures: any mitigation measures specifically related to the ornithological qualifying species and associated SPAs/pSPAs should be laid out clearly within the EIAR documentation.

A number of SACs designated for Atlantic salmon or Atlantic salmon and freshwater pearl mussel should be considered in the NCA, these are listed in Annex 1, it is our preliminary view that the proposal is not likely to have a significant effect on these sites.

In our view, an NCMPA appraisal will not be required as the proposal is not likely to affect the features of the North West Orkney NCMPAs.

The Orkney landfall will cross the Stromness Heaths and Coast Site of Special Scientific Interest (SSSI) and, depending on the exact location and installation method, could affect the geological, maritime grassland and maritime heath interest of the site. Impacts on these features should be included in the assessment. Unless regulated by marine licence or other permission, operations affecting the features of the SSSI may require a consent from SNH.

Several of the Natura sites listed in Annex 1 are also designated as SSSIs, however assessment of impact on the Natura features listed will be sufficient to ensure that impacts on SSSI features are also taken into account.

Information on data sources to help inform the NCA is provided in Annex 3. Information on protected areas can be found on Sitelink <a href="http://gateway.snh.gov.uk/sitelink/index.jsp">http://gateway.snh.gov.uk/sitelink/index.jsp</a>

### **Cumulative impacts**

We recommend that the assessment of cumulative impacts takes into account the approved Dounreay Tri floating offshore wind demonstration project and its grid connection. We are aware that SHE Transmission are proposing a number of inter-island connections as part of

the larger Orkney Connection Project. It would be preferable for the impacts of these connections to be included in a cumulative impact assessment.

## 3. Concluding remarks

Please contact me should you have any queries regarding this letter.

Yours sincerely

[Redacted] Senior Casework Manager [Redacted]

# Annex 1 - Summary table of designated sites to consider in the environmental assessment .

Table 1.1 SPAs, pSPAs and NCMPAs designated for bird features

Protected site	Approx. distance from cable corridor (km)	Relevant qualifying species of interest	Within foraging range?	LSE?*
Hoy SPA (includes marine extension)	0	Breeding: Arctic skua Fulmar Great black-backed gull Great skua Guillemot Kittiwake Peregrine Puffin Red-throated diver	YES for all	YES
North Caithness Cliffs SPA (includes marine extension)	0	Breeding: Fulmar Guillemot Kittiwake Peregrine Puffin Razorbill	Yes for all	YES
Scapa Flow pSPA	0	Breeding: Red-throated diver  Non-breeding: Black-throated diver Goldeneye Common eider Great northern diver Long-tailed duck Red-breasted merganser Slavonian grebe European shag	Yes for all	YES
Caithness and Sutherland Peatlands SPA	5km	Breeding: Red-throated diver  This diver species relies on the marine environment, foraging in coastal waters during the breeding period, and therefore should be included.	Yes	YES
Orkney Mainland Moors SPA	5km	Breeding: Red-throated diver	Yes	YES

Protected site	Approx. distance from cable corridor (km)	Relevant qualifying species of interest	Within foraging range?	LSE?*
		As with Caithness and Sutherland Peatlands SPA, this species forages in coastal waters during the breeding period and should therefore be included.		
Marwick Head SPA (includes marine extension)	15km	Breeding: Guillemot Kittiwake	Yes	NO
Pentland Firth pSPA	15km	Breeding: Arctic skua Arctic tern Common guillemot  Though the species are within foraging range, the pSPA is designated to preserve foraging habitat. As the development doesn't directly impact supporting habitats or distributions of birds within this site, it does not need to be assessed.	Yes	NO
Pentland Firth Islands SPA	25km	Breeding: Arctic tern	Yes	NO
Rousay SPA (includes marine extension)	25km	Breeding: Common guillemot Black-legged kittiwake Northern fulmar Arctic tern Arctic skua	Yes	NO
Copinsay SPA (includes marine extension)	35km	Breeding: Fulmars Great black-backed gull Guillemot Kittiwake	Yes	NO
West Westray SPA (includes marine extension)	35km	Breeding: Arctic skua Arctic tern Fulmar Guillemot Kittiwake Razorbill	Yes, except arctic tern.	NO
East Caithness Cliffs SPA (includes marine	40km	Breeding: Cormorant Fulmar Great black-backed gull	Yes, except cormorant and	NO

Protected site	Approx. distance from cable corridor (km)	Relevant qualifying species of interest	Within foraging range?	LSE?*
extension)		Guillemot Herring gull Kittiwake Peregrine Razorbill Shag	peregrine	
Calf of Eday SPA (includes marine extension)	45km	Breeding: Common guillemot Black-legged kittiwake Northern fulmar Great black-backed gull Great cormorant	Yes, except cormorant	NO
Papa Westray NCMPA	55km	All year: Black guillemot	No	NO
Papa Westray (North Holm and Hill) SPA	55km	Breeding: Arctic tern Arctic skua	No Yes	NO
Caithness Lochs SPA	7km	Wintering Greenland white-fronted goose Greylag goose	Yes	

LSE\* assumes an overlap in breeding or non-breeding period as a worst-case scenario. Note: only relevant qualifying species of interest are shown. Other terrestrial-based species may be present as qualifying features, but are more relevant to assess within the planning applications for the terrestrial aspects of the project proposal. The preliminary assessment of LSE is on a precautionary basis due to limited information on the project currently available.

Table 1.2 SACs designated for Atlantic salmon and freshwater pearl mussel features

Protected site (all SACs)	Approx. distance from cable corridor (km)	Relevant qualifying species of interest	LSE?
River Thurso	13	Atlantic salmon	No
River Naver	34	Atlantic salmon, freshwater pearl mussel*	No
River Borgie	36	Atlantic salmon, freshwater pearl mussel*	No

<sup>\*</sup>Impacts on freshwater pearl mussel would be indirect via impacts on Atlantic salmon as its larval host.

## Annex 2 – Advice on potential impacts on seabird features of SPAs/pSPAs and NCMPAs

Table 2.2 in the report sets out potential impacts on the bird features of SPAs/pSPAs. Potential impacts which, in our view, should be included as part of the assessment on these features are as follows:

SCOPE IN

### Installation:

 Disturbance and/or displacement of qualifying interests due to vessel presence, noise or light pollution.

The presence of ships and increased activity on the water in the vicinity of foraging areas for birds could be enough to displace and/or disturb birds. This disturbance could overlap with sensitive periods in the life cycle of some species (e.g. breeding, moulting) during which time birds may be unwilling/unable to move out of the area of disturbance. Those birds in moult will have a reduced ability to avoid vessel movements when flightless. It should also be noted that responding to a disturbance or displacement event can be an energetically costly activity for the birds which can have implications for their breeding success or over-winter survival. Particular species known to be sensitive to disturbance can be found in Furness et al (2012) and Wade et al (2016).

• Disturbance and/or displacement of qualifying interests due to increased turbidity in the water column.

Disturbance to the seabed could affect/reduce seabird foraging habitat. There may be localised effects on turbidity, which may differ depending on which installation technique is utilised and the type of seabed substrate. It will be important to assess those species which are visual foragers in particular, and those known to be sensitive to changes in water quality.

 Indirect effects on qualifying interests due to changes in distribution of prey items.

The disruption to the benthic environment during cable installation, and subsequent disturbance of fish species during potential spawning lifecycle stages can have implications for the seabirds relying on the fish species as a prey items. Species with particular sensitivities to this are included in Cook and Burton's (2010) assessment of seabird sensitivity to effects on dredging, which includes effects of turbidity changes.

We would expect that all the above potential installation effects would be temporary and localised. Therefore the disturbance or displacement itself would be short-lived. The timings of the cable installation and the season of cable installation will determine whether or not these temporary activities may still result in LSE for the qualifying species.

For many of the SPAs/pSPAs only a small proportion of potential foraging habitat will likely be affected.

### Operation:

The level of disturbance and/or displacement caused during maintenance and repair operations will depend on how frequently the maintenance regime is expected. An estimated value of how often maintenance is expected to take place should be provided within the assessment.

 Disturbance and/or displacement of qualifying interests due to vessel presence, noise or light pollution during maintenance activities.

It is assumed that maintenance activities will be extremely temporary in nature and any disturbance or displacement would be short-lived. This is not expected to be a large effect during operation of the subsea cable.

 Indirect effects on prey species due to EMF during cable operation or disturbance of prey items from maintenance or repair vessels.

Provided the burial technique is sufficient to alleviate effects of EMF, it is not anticipated that there will be significant effects on prey items as a result of operation of the cable. Any disturbance to prey items as a result of maintenance or repair vessels is likely to be temporary in nature.

Further to the above, we would advise that the effects of accidental oil or fuel spills as a result of installation or maintenance vessels could be **SCOPED OUT** from further assessment, in terms of the ornithological interests, providing standard pollution prevention measures are laid out in their Schedule of Mitigation/Construction Environmental Management Plan, or equivalent documentation.

It is noted within the scoping report (Page 30) that disturbance at breeding sites near landfall locations (above MHWS) will be covered in a separate planning application, although see our comments above regarding planning and installation activity. Any effects on seabirds breeding in locations near the cable landfalls should however still be taken into consideration in terms of their use of the surrounding waters. Work close to shore for the landfall could disturb species using nearshore water for breeding, resting, or foraging activities. Therefore the landfall locations and techniques still require **SCOPING IN** for their assessment. The breeding seabirds and breeding peregrine falcon at North Caithness Cliffs SPA near the mainland Scotland landfall site, and at the Hoy SPA will need to be considered as part of a planning or other application for any works above MHWS. (Note that for that application there could be indirect effects for the breeding peregrine falcon at each landfall site if effects are found on seabirds, which are prey species for the peregrine falcon.)

### Annex 3 - Information on data sources

The EA for the previous marine licence application for a Caithness to Orkney subsea transmission cable used a number of sources of information which are also likely to be relevant to the current proposal.

A number of potentially useful sources of information are listed below:

## Ornithology, including consideration of SPA and pSPA species

 Information on bird breeding and non-breeding periods, for seabirds and for other bird species:

https://www.nature.scot/sites/default/files/2017-07/A303080%20-%20Bird%20Breeding%20Season%20Dates%20in%20Scotland.pdf

https://www.nature.scot/sites/default/files/2017-07/A2332152%20-%20Suggested%20seasonal%20definitions%20for%20birds%20in%20the%20Scottish%20 Marine%20Environment%20-%203rd%20February%202017.pdf

- Any relevant data for qualifying species as collected as part of the wider Orkney Connection project.
- JNCC databases which include:
- Seabird Monitoring Programme: can search under 'Sites' and then 'Browse for sites', can provide information on counts of seabirds at designated sites. http://incc.defra.gov.uk/smp/
  - ➤ ESAS database, see <a href="http://jncc.defra.gov.uk/page-4469">http://jncc.defra.gov.uk/page-4469</a> for link to JNCC contact.
  - JNCC Natura Data Forms for each relevant SPA.
  - Site selection document for Scapa Flow proposed SPA and Pentland Firth pSPA. For distributions of qualifying species within the Scapa Flow proposed SPA.

https://www.nature.scot/scapa-flow-proposed-marine-spa-supporting-documents https://www.nature.scot/pentland-firth-proposed-marine-spa-supporting-documents

 Pentland Firth and Orkney Water Marine Spatial Plan documentation and associated data. • For foraging ranges of key seabird species see Thaxter et al. (2012) as a starting point, and Furness et al. (2012) Supplementary files for summaries of diving depths, foraging ranges, and disturbance distances for some key marine species.

### Useful references:

Cook, A.S.C.P. & Burton, N.H.K. (2010). *A review of the potential impacts of marine aggregate extraction on seabirds*. Marine Environment Protection Fund (MEPF) Project 09/P130.

Furness, R.W., H.M., Robbins, A.M.C., Masden, E.A., (2012) Assessing the sensitivity of seabird populations to adverse effects from tidal stream turbines and wave energy devices. *ICES Journal of Marine Science*, 69, 1466–1479, https://doi.org/10.1093/icesjms/fss131.

Thaxter, C.B., Lascelles, B., Sugar, K., Cook, A.S.C.P., Roos, S., Bolton, M., Langston, R.H.W., Burton, N.H.K (2012) Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protected Areas. *Biological Conservation*, 156.

Wade, H.M., Masden, E.A., Jackson, A.C., Furness, R.W. (2016) Incorporating data uncertainty when estimating potential vulnerability of Scottish seabirds to marine renewable energy developments Marine Policy, 70, 108-113.

### Marine mammals

In addition to SCANs III data for cetacean density we recommend that additional data on coastal species is sought from sources such as:

- Whale and Dolphin Conservation (WDC)
- Sea Mammal Research Unit (SMRU)
- Aberdeen University
- Cetacean Research and Rescue Unit (CRRU)
- Seawatch Foundation
- Local Biological Record Centres.

Other potentially useful data sources include:

SNH Commissioned Report: Abundance and Behaviour of Cetaceans & Basking Sharks in the Pentland Firth and Orkney Waters <a href="http://seawatchfoundation.org.uk/wp-content/uploads/2012/08/Orkney-and-Pentland-review-final.pdf">http://seawatchfoundation.org.uk/wp-content/uploads/2012/08/Orkney-and-Pentland-review-final.pdf</a>

The outputs from the Joint Cetacean Protocol (JCP) which provide useful context <a href="http://jncc.defra.gov.uk/page-5657">http://jncc.defra.gov.uk/page-5657</a>

The modelling work SNH carried out in support of identifying MPA proposals might also be useful (relevant for minke whale, Risso's dolphin, white-beaked dolphin and basking shark). The report is at <a href="https://www.nature.scot/snh-commissioned-report-594-statistical-approaches-aid-identification-marine-protected-areas-minke">https://www.nature.scot/snh-commissioned-report-594-statistical-approaches-aid-identification-marine-protected-areas-minke</a> and data layers are available to view on nmpi.

Up-to-date figures for seal populations are available from the Special Committee on Seals annual reports - http://www.smru.st-andrews.ac.uk/research-policy/scos/.

Seal usage maps will be relevant <a href="http://marine.gov.scot/information/seal-usage-maps">http://marine.gov.scot/information/seal-usage-maps</a>

The SNH report: Utilisation of space by grey and harbour seals in the Pentland Firth and Orkney waters <a href="https://tethys.pnnl.gov/sites/default/files/publications/SMRU Ltd 2011.pdf">https://tethys.pnnl.gov/sites/default/files/publications/SMRU Ltd 2011.pdf</a> contains relevant seal tagging data.

Marine Scotland EPS licensing guidance is availablehttps://www.gov.scot/Resource/0044/00446679.pdf

Marine Scotland have also produced guidance on harassment at seal haul outs - https://www.gov.scot/Resource/0045/00452869.pdf

**UK Chamber of Shipping** 

### [Redacted]

[Redacted] From:

31 July 2018 15:55 Sent: [Redacted]

To:

**MS Major Projects** Cc:

Subject: FW: SHE Transmission – Orkney to Caithness - pre-application consulation -

deadline for response 30 August 2018

Attachments: SHET - Orkney to Caithness - EA document in pdf for consultation - 27 July 2018

#2.pdf

Categories: Orange Category

Dear [Redact

Thank you for sending this to the Chamber of Shipping. We welcome the opportunity to respond.

The Chamber has obvious navigational concerns with the subsea cable route passing across a major shipping route and see that there is not currently much detail in the EA document over impact on navigation and anchoring activity and therefore agree with your conclusion that further investigation and research is needed for the marine licence application.

The Chamber also does not think that the cable burial plan contains a lot of detail and should be developed further.

Look forward to further dialogue and research being undertaken.

Kind regards,

[Reda cted]

Policy Manager

**UK Chamber of Shipping** 30 Park Street, London, SE1 9EQ

[Redacted]

### www.ukchamberofshipping.com

Please consider the environment before printing this email.

The information contained in this communication, and any attachments, may be confidential and / or privileged. It is intended only for the use of the named recipient. If you are not the intended recipient, please contact us on 020 7417 2800. In such an event, you should not access any attachments, nor should you disclose the contents of this communication or any attachments to any other person, nor copy, print, store or use the same in any manner whatsoever. Thank you for your cooperation.

**Appendix II: Licensing Process** 

## **Application**

The application letter must detail how many licences are being sought, what marine licensable activities are proposed and what legislation the application is being made under.

Applicants are required to make a copy of the non-technical summary available for viewing by members of the public in communities at each of the landfall locations. There must also be instructions regarding where the full EA may be accessed. An electronic copy of the EA in a user-friendly PDF format must be submitted to the Scottish Ministers which will be placed on the Scottish Government website alongside the application documents. If requested to do so by the Scottish Ministers, the applicant must send to the Scottish Ministers further hard copies of the EA as requested.

## Requirement for Public Pre-Application Consultation ("PAC")

From 6<sup>th</sup> April 2014, applications received for certain activities are subject to a public pre-application consultation requirement. Activities affected will be large projects with the potential for significant impacts on the environment, local communities and other legitimate uses of the sea. This requirement allows local communities, environmental groups and other interested parties to comment on proposed works in their early stages and before an application for a marine licence is submitted.

The Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013 can be accessed via:

## http://www.legislation.gov.uk/ssi/2013/286/made

Guidance on marine licensable activities subject to Pre-application Consultation can be obtained at:

## http://www.gov.scot/Topics/marine/Licensing/marine/guidance/preappconsult

The licensing authority reserves the right not to accept an application in the absence of an acceptable PAC report.

## Ordinance Survey ("OS") Mapping Records

Applicants are requested at application stage to submit a detailed OS plan showing the site boundary and location of all deposits and onshore supporting infrastructure in a format compatible with The Scottish Government's Spatial Data Management Environment ("SDME"), along with appropriate metadata. The SDME is based around Oracle RDBMS and ESRI ArcSDE and all incoming data should be supplied in ESRI shape file format. The SDME also contains a metadata recording system based on the ISO template within ESRI ArcCatalog (agreed standard used by The Scottish Government); all metadata should be provided in this format.

## Advertisement

The applicant must publish their details of their proposals. Licensing information and guidance, including the specific details of the adverts to be placed in the press, can be obtained from the Scottish Ministers. If additional information is submitted further public notices will be required

## **EPS licence**

European Protected Species ("EPS") are animals and plants (species listed in Annex IV of the <u>Habitats Directive</u>) that are afforded protection under <u>The Conservation</u> (Natural Habitats, &c.) Regulations 1994 (as amended) and <u>The Offshore Marine Conservation</u> (Natural Habitats, &c.) Regulations 2007 (as amended). All cetacean species (whales, dolphins and porpoise) are European Protected Species. If any activity is likely to cause disturbance or injury to a European Protected Species a licence is required to undertake the activity legally.

A licence may be granted to undertake such activities if certain strict criteria are met:

- there is a licensable purpose;
- there are no satisfactory alternatives, and;
- the actions authorised will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in their natural range.

Applicants must give consideration to the three fundamental tests and should refer to the <u>guidance on the protection of marine European Protected Species</u> for more detailed information in relation to Scottish Inshore Waters. Applicants may choose to apply for an EPS licence following the determination of the EIA application and once construction methods have been finalised, however it is useful to include a shadow EPS assessment within the EIA report.

Please note that basking sharks are also afforded protection under the Wildlife & Countryside Act 1981 (as Amended by the Nature Conservation (Scotland) Act 2004) and as such the applicant should consult with MS-LOT on the requirement for a licence to disturb basking sharks.

**Appendix III: Gap Analysis** 

## Applicant to complete:

Consultee	No.	Point for inclusion	EA Section	Justification
	1			
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**Appendix IV: Cable Guidance** 

## **Cable Guidance – Required Submissions**

The installation, protection and decommissioning of transmission cables are controlled by:

- Marine (Scotland) Act 2010;
- Marine and Coastal Access Act 2009; and
- Scotland's National Marine Plan ("SNMP").

The requirements set out in this guidance will ensure applications are in compliance with the above regulations and policy. Deviations from these requirements are liable to result in delays in processing your application as well as the potential requirement for further consultation and assessment.

Further documentation, supplied at the time of a marine licence application, should be all of the following:

- Construction Method Statement;
- Cable Burial Plan;
- Fisheries Liaison and Mitigation Action Plan;
- Communication Strategy;
- Post Installation Survey Plan; and
- Decommissioning Plan.

More detail on what these should include are provided below.

### Construction Method Statement

The EA will reduce the degree of design flexibility required and that the detail will be further refined in a Construction Method Statement ("CMS") to be submitted to the Scottish Ministers, for their approval, before works commence.

### Cable Burial Risk Assessment / Plan

To avoid interference with legitimate users of the sea and to protect the asset, in accordance with the SNMP there is a presumption in favour of cable burial. As such, marine licence applications should also be accompanied by a Cable Burial Plan which should include the following information:

- evidence of advice from fishing representatives and other marine users;
- depth profiles of any burial (provision of shapefiles);
- data and analysis of survey data to justify not burying; and
- detail of how the cable will be protected.

## Fisheries Liaison and Mitigation Action Plan ("FLMAP")

The EA will detail a Fisheries Liaison and Mitigation Action Plan (FLMAP) which should include the following information:

- Fisheries Liaison Officer credentials;
- must be applicable to all legitimate users of the sea not just commercial fishing; and
- must not be date-specific to allow for timeline shifts and should refer to times in relation to installation works.

## Communication Strategy

The EA will detail a Communication Strategy which should include the following information:

- Notice to Mariners;
- notice to fishermen to allow for gear clearance;
- Kingfisher bulletin;
- MCA / radio notices;
- timing of each of the above relative to project timings; and
- · method of handling information relating to updates and problems.

## Post Installation Survey Plan

The EA will detail a Post Installation Survey Plan which should include the following information:

- immediate post-lay survey and longer term survey and inspection programme;
- proposed timescales;
- survey type / details;
- mitigation if spans or movement found; and
- provision of proposed inspection timetable for all assets (if available).