

CAITHNESS - MORAY TRANSMISSION REINFORCEMENT

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# CAITHNESS – MORAY HVDC REINFORCEMENT

**OFFSHORE WORKS** 

# COMMUNICATIONS STRATEGY

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Revision 02 note:

- 1. *Appendix 4.3* revised to include condition references from the Outside 12nm limit marine licence.
- 2. Section 1.1 revised to include the Outside 12nm limit marine licence.
- 3. New Section 3.4 added (Rock Placement)

#### Revision 03 note:

- 1. Section 3 extended to include details of notifications.
- 2. Appendix 4.1 revised.
- 3. Appendix 4.4 added.
- 4. Appendix 4.5 added.



Revision 04 note:

- 1. Additional paragraph added to Section 1.
- 2. UKICPC added to Glossary.
- 3. Section 3.4 revised.
- 4. New Section 3.5 added.

#### Revision 05 note

- 1. Additional paragraph added to Section 3.
- 2. Additional statement added to WDC item in Section 3.1
- 3. Additional statements added to Section 3.4.

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- 1. Wording revised in Section 3 summary
- 2. Additional statement added to Section 3.4.



# GLOSSARY

ABB AB (Contractor)
Beatrice Offshore Windfarm Limited
Cable Plan
Controlled Activities Regulations
Fisheries Liaison and Mitigation Action Plan
Fisheries Liaison Officer
High Voltage Direct Current
Joint Nature Conservation Committee
Kingfisher Information Service Offshore Renewables and Cable Awareness
Maritime & Coastguard Agency
Moray Firth Inshore Fisheries Group
Mean High Water Springs
Ministry of Defence
Moray Offshore Renewables Limited
Marine Protected Area
Marine Scotland (the licensing authority)
Northern Lighthouse Board
Notice to Mariners
Royal Yacht Association
Scottish Environmental Protection Agency
Scottish Fishermen's Federation
Scottish Hydro Electric Transmission Plc (Licensee)
Faroese Telecom Cable
Scottish Natural Heritage
The Crown Estate
United Kingdom Hydrographic Office
UK International Cable Protection Committees
Whale and Dolphin Conservation



# **1 INTRODUCTION**

## 1.1 FOREWORD

The Communications Strategy sets out the procedures for the distribution of information relating to all cable installation, protection and survey activities on the Caithness – Moray HVDC Reinforcement project's subsea cable circuit ("the cable") to the fishing industry and other legitimate users of the sea.

The Communications Strategy sets out the liaison procedures that will be followed prior to, during and after the installation of the cable. These procedures have been established to ensure that the cable is planned, installed and operated as safely as possible in accordance with the licence conditions for the project.

SHE T were granted authorisation from the electricity regulator, ofgem, in summer 2014 to proceed to project implementation (i.e. construction, commissioning and operation). The project is required to improve and reinforce the electricity transmission connection between Caithness & Moray (and onwards to the rest of the UK electricity network) to enable connection with new renewable generation capacity in the north of Scotland.

Following on from this authorisation, SHE T applied for and obtained the following marine licences:

- Noss (Caithness) to 12nm limit licence No. 04368/16/0
- Portgordon (Moray) to 12nm limit licence No. 04878/13/0
- Outside 12nm limit licence No. 06043/16/0

It should be noted that the Communications Strategy is a requirement set out in the Portgordon and Outside 12nm limit licences only. However, SHE T has prepared the Communications Strategy for all of the project's subsea cable installation works.

Furthermore, any notices or provision of information will be issued by SHE T in relation to all operations, i.e. they will not be issued in relation to a particular licence, unless a licence contains a particular requirement to do so.

A list of the organisations that will be communicated with can be found throughout Section 3.

## 1.2 PURPOSE OF THE COMMUNICATIONS STRATEGY

MS has specified the following condition No. 10 in the Portgordon and Outside 12nm limit licences:

The licensee must submit a Communication Strategy to the licensing authority no later than eight weeks prior to the commencement of operations relating to the licence, for their written approval. It is not permissible for operations to commence prior to the granting of such approval. In granting such approval, the licensing authority may consult any such advisors, organisations or stakeholders as may be required at their discretion. The Communication Strategy must document clearly defined procedures for the distribution of information relating to all cable installation, protection and survey activities to the fishing industry and other legitimate users of the sea. The Communication Strategy must include the following:-



- a) Details of the timing, format and method(s) of distribution of notices of all operations relating to the licence including, but not limited to, horizontal directional drilling (HDD), boulder clearance, trenching, cable laying, backfill and additional protection;
- b) Details of the timing, format and method(s) of distribution of notices of hazards to other legitimate users of the sea;
- c) Details of the timing, format and method(s) of distribution of details of any protection requirements including expected berm heights relative to the sea bed (this information must be distributed at least four weeks prior to the commencement of any rock placement); and
- d) Details of the timing, format and method(s) of distribution of as laid position of cables and protection including berm heights relative to the sea bed.

The Communications Strategy has therefore been produced to ensure that SHE T has a robust plan in place for the project that meets the relevant marine licence requirements set out by the Scottish Government.



# 2 **PROPOSED WORKS**

ABB have been appointed as the Contractor by SHET for the HVDC portion of the project (including subsea and land cable and HVDC converters).

The proposal is to install a HVDC electricity transmission cable circuit across the Moray Firth between Noss Head near Wick in Caithness and Portgordon in Moray. The installed circuit comprises two HVDC cables and a single fibre optic cable. A cross section of the cable configuration is presented in Figure 1 below:



Figure 1: Cable bundle cross-section

The two cables will be bundled together and will be installed wherever possible in a trench. The overall subsea cable length is 113km. The cable route is shown in Figure 2 below.





Figure 2: Caithness – Moray cable route.

## 2.1 INSTALLATION AND BURIAL

In brief, the proposed cable laying method will involve boulder clearance and the creation of a temporary 1.8m deep trench across the Moray Firth by a trenching plough. The cables will then be laid in this trench. The trench will then be mechanically backfilled and any areas of cable that are not buried to a depth of at least 1m will be protected by mechanical backfill or rock armour.

An exception to this is within the Noss MPA where trenching will not be carried out. Instead, protective ducting will be installed.

A number of surveys will be undertaken to verify cable position, mechanical backfill and rock placement profiles throughout the installation.

# 2.2 INSTALLATION PROGRAMME

Please refer to *Appendix 4.1* for the current project programme.



# **3 COMMUNICATION STRATEGY**

Throughout the project's lifecycle, SHE T has engaged with a variety of stakeholders. A list of the stakeholders can be found below

The relevant stakeholders will be contacted before a planned work activity that has the potential to impact them and, depending on the progress of this activity, it would also be common practice for there to be regular contact throughout the work.

Stakeholders can be divided into the following groups:

• Statutory consultees to MS:

This group comprises:

- SNH (including JNCC when outside 12nm)
- SEPA
- MCA
- NLB
- Other relevant Stakeholders:

This group comprises all other stakeholders identified in this Communications Strategy.

In addition to statutory stakeholder engagement, SHE T also has a number of obligations where it is necessary to engage with non statutory stakeholders prior to, during and/or upon completion of certain work activities.

In the event that an activity's date or duration was to change out with the dates detailed in *Appendix 4.1*, an update will be issued to the affected stakeholders

In the event that the scope or methodology of the planned work activity was to change, then any stakeholder likely to be affected, including any relevant licensing authority, would be consulted. Any change and associated timeline would be agreed prior to the works commencing.

Communication methods to each stakeholder differ depending on the agreements between the parties, however each stakeholder has a nominated point of contact from SHE T, detailed in *Appendix 4.2*. The following methods of communication will be used:

- I. Email;
- II. Telephone call;
- III. Mail drop;
- IV. Newsletters
- V. Face to face meeting;
- VI. Site visits;
- VII. Social Media updates; and/or
- VIII. Notice to Mariners.

Formal communications will take the form of notifications as set out below:

• Subsea Cable Awareness "Flier":



Subsea Cable Awareness Fliers will be published through Kingfisher Information Services and Fishing News. It is intended that two flyers, one for the Portgordon HDD works (2016 & 2017) and the other for offshore installation activities (2016 & 2017), will be issued. They are set out in *Appendix 4.4*. They will be issued nominally at least 4 weeks prior to commencing the operations to which they relate. This is not a requirement set out in the marine licences. It is a proactive initiative taken by SHE T to provide as much advance warning of the forthcoming works as possible.

• Notices to Mariners (NtM):

Details of the works will be promulgated to all appropriate maritime users, through NtM and/or radio navigational warnings and publication in appropriate bulletins to comply with the conditions in the marine licences. The NtMs will be issued using the UKHO hydrographic note form H102 at the stages of the cable installation set out below:

- HDD works
- o boulder clearance
- o pre-cut trenching
- o cable laying
- o trench backfill
- o rock placement.

Form H102 (see example in *Appendix 4.5*) will be sent by email as set out below:

- To: Source Data Receipt at UK Hydrographic Office, Kingfisher Information Services
- CC: Marine Scotland

Scottish Hydro Electric Transmission (SHET) – Lead Project Manager, Fisheries Liaison Officer & Marine Consents Manager

ABB – Project Installation Manager & Deputy Project Installation Manager

Aberdeen Coastguard Operations & Maritime Rescue Coordination Centre (MRCC)

Buckie Harbour Master

Cromarty Firth Port Authority

Joint Nature Conservation Committee (JNCC)

MacDuff Harbour Master

North & East Coast Regional Inshore Fisheries Group

Northern Lighthouse Board

Portgordon Harbour Master (via Buckie Harbour Master)

Port of Inverness Harbour Master

Scottish Natural Heritage (SNH)



Scottish Fishermen's Federation Whale and Dolphin Conservation Wick Harbour Master

Each NtM will contain full details of the vessel, location, activities, contact details etc.

NtMs will be issued at least 20 days prior to an activity's start date to allow inclusion in the Kingfisher Fortnightly Bulletin.

However, in the case of incidents or emergencies requiring notification, the NtM will be issued as soon as reasonably possible. Any actions required to notify an incident or emergency will go ahead even if there is not sufficient time for it to appear in the Kingfisher Fortnightly Bulletin.

All NtMs will be issued by ABB.

NtM updates:

It is intended that the issued NtMs will comprehensively describe the planned activities. However, in the unlikely event that a significant change to these activities becomes apparent, an update will be issued by email to Source Data Receipt at the UK Hydrographic Office and copied to the distribution list set out in the *Notices to Mariners* section above.

• Notices to static gear fishermen

The static gear fishermen will receive the NtMs as set out above. However, further specific liaison between SHE T's static gear fishing industry representatives in Wick and Portgordon and the fishermen who will be affected by the installation operations will take place to agree the detailed arrangements for removal of static gear. This will include details of dates and numbers of creels. This liaison takes place nominally one week prior to the planned commencement of the installation operations.

#### • Notices to mobile gear fishermen

The mobile gear fishermen will receive the NtMs as set out above. However, further specific liaison between SHE T's mobile gear fishing industry representatives in the Moray Firth and the fishermen who will be affected by the installation operations will take place to ensure that they are given a minimum of 24 hours notice to remove their gear from the working area(s) of vessels of restricted mobility.

#### Change notifications:

It is intended that the operations will be carried in accordance with the marine licences. However, in the unlikely event that a significant change to these operations becomes apparent to the extent that compliance may not be achievable, an update will be issued by email to Marine Scotland as soon as is reasonably possible setting out the details of the change and its potential impact on the marine licence conditions. Should this change result in the creation of a hazard to users of the sea, the process for NtM updates and radio navigation warnings set out above will be followed.

Appendix 4.3 provides a programme of planned communications across the project.



## 3.1 PORTGORDON HDD

#### Marine Scotland (MS)

The key point of contact within SHE T is the project's Marine Consents Manager.

MS is the licensing authority for all works and as such all consent conditions that require to be met must be demonstrated to them either upon request or as agreed in the license.

Specific contact with MS will be made by SHET's Marine Consents Manager:

- 1. prior to commencement of the HDD works for the following purposes:
  - to notify the commencement of the HDD works
  - to submit and seek approval of a Communications Strategy (i.e. this document)
  - to submit and seek approval of an CEMP for the HDD works and any subsequent updates at appropriate times
- 2. during the HDD works for the following purposes:
  - to allow access for an authorised Enforcement Officer to inspect the works
  - to notify any changes to the works that may affect the validity of the licence
  - to submit and seek approval of plans to mitigate navigational dangers or risks, where required
- 3. on completion of the HDD works for the following purposes:
  - to notify the completion of the HDD works

#### Scottish Natural Heritage (SNH)

The key point of contact within SHE T is the project's Lead Environmental Project Manager.

SNH are a consultee to Marine Scotland.

#### Joint Nature Conservation Committee (JNCC)

The key point of contact within SHE T is the project's Marine Consents Manager.

The JNCC are a consultee to Marine Scotland.

Maritime and Coastguard Agency (MCA) including Her Majesty's Coastguard (HMG)

The key point of contact within SHE T is the project's Marine Consents Manager.

The MCA are also a consultee to Marine Scotland.

Contact with MCA will be maintained prior to and during the HDD installation to ensure that they are aware of the licenced operations, the presence of support vessels at the exit points and of the presence of the HDD casings on the seabed once the HDDs are complete.

#### Whale and Dolphin Conservation (WDC)

The key point of contact within SHE T is the project's Lead Environmental Project Manager.

The Moray Firth is globally recognised as an area where cetaceans are present. The HDD installation may therefore have an impact on their environment, particularly during times when a support vessel is in position at the exit points. SHE T will therefore maintain close contact with the WDC prior to and during the HDD installation.

#### Scottish Environmental Protection Agency (SEPA)



The key point of contact within SHE T is the project's Lead Environmental Project Manager. However, ABB may also communicate with SEPA regarding, for example, CAR licensing and waste transfer.

SEPA will be contacted regarding matters relating to the onshore aspects of the HDD installation only relating to CAR licensing, if required.

#### Scottish Fishermen's Federation (SFF)

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

The SFF represent predominately the mobile commercial fishing fleet that operate in deeper waters in the Moray Firth i.e. outside the HDD works area however, as part of ongoing regular liaison with the SFF, SHE T will keep them appraised of the installation as it proceeds, specifically in relation to the presence of support vessels at the exit points and of the presence of the HDD casings on the seabed once the HDDs are complete

#### North and East Coast Regional Inshore Fisheries Group (RIFG) -

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

This organisation's members are predominantly local fishermen who operate near the area of planned works. Regular dialogue between the FLM and the RIFG will be maintained prior to and during the HDD installation work, noting that both mobile and static gear commercial fishing operations are present in the area. SHE T will also liaise with individual members regarding potential compensation for loss of earnings due to requested creel removal.

#### Unaffiliated commercial fishermen

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

SHE T is aware of independent commercial fishing operators who are not affiliated with either the SFF or the North and East Coast RIFG. The FLM is aware of these individuals and will maintain liaison with them, particularly in relation to the requirement to remove creels to allow the works to be carried out. SHE T will also liaise with these individuals regarding potential compensation for loss of earnings due to requested creel removal.

#### The Crown Estate

The key point of contact within SHE T is the project's Land Settlements Manager.

TCE manage property belonging to the Sovereign. Part of the HDD installation (seaward of MHWS) is located within Sovereign territory and, as such, SHE T is required to obtain permission via a licence from TCE to use the land. The licence has been obtained. It is not envisaged that any further communication will be required with TCE until the entire cable circuit from Moray to Caithness is energised.

#### United Kingdom Hydrographic Office (UKHO)

The key point of contact within SHE T is the project's Marine Consents Manager. However, ABB will also communicate with UKHO regarding, for example, NtMs.

SHE T will maintain contact with the UKHO to provide regular updates on progress of the works, provide a copy of the marine licence and provide as-built details upon completion.

ABB will maintain contact with the UKHO via NtMs.

# Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA)



The key point of contact within SHE T is the project's Marine Consents Manager. However, ABB may also communicate with KIS-ORCA regarding, for example, NtMs.

SHE T will maintain contact with KIS-ORCA to provide details of dangers to navigation, should they occur during the works. Furthermore, SHE T will provide KIS-ORCA with as-built details of the installation for the purpose of identifying it as a hazardous area for anchoring.

ABB will maintain contact with the KIS-ORCA via NtMs.

#### Ministry of Defence (MoD)

The key point of contact within SHE T is the project's Consents Manager.

The MoD regularly uses the Moray Firth both for exercise and routine national defence operations. The MoD would also be a key contact for other defence agencies that may share in such activities therefore communication between SHE T and the MoD is essential to ensure that neither party's operations are conflicting.

#### **Buckie Harbour**

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

However, ABB may also communicate with the Buckie Harbour Master regarding, for example, NtMs.

SHE T will maintain contact with the Buckie Harbour Master to provide details of planned and ongoing operations that may affect fishing activities.

ABB will maintain contact with the Buckie Harbour Master via NtMs.

#### Portgordon Harbour

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

Portgordon harbour is currently un-manned therefore, any matters that may relate to operations based there will be communicated via the Harbour Master at Buckie Harbour (see directly above).

However, communication will be maintained with the Portgordon Community Harbour Group.

#### **Royal Yacht Association**

The key point of contact within SHE T is the project's Marine Consents Manager.

SHE T will maintain contact with the RYA to provide details of planned and ongoing operations that may affect recreational sailing in the area of the works.

#### Local marine tourist operators

The key point of contact within SHE T is the project's Community Liaison Manager for the Moray local authority area.

SHE T will maintain contact with the local marine tourist operators to provide details of planned and ongoing operations that may affect recreational sailing in the area of the works.

#### Local Residents

The key point of contact within SHE T is the project's Community Liaison Manager for the Moray local authority area.

Contact with the local residents will continue to be made regularly in a variety of ways. Email, telephone, public meetings, social media, mail drop and liaison with local community



groups are amongst the methods that will continue to be adopted. A biannual newsletter is also produced and delivered by post to all properties in the local area.

#### Lennox Community Council

The key point of contact within SHE T is the project's Community Liaison Manager for the Moray local authority area.

SHE T will maintain contact with Lennox Community Council to provide details of planned and ongoing operations that may affect the local area.

## 3.2 NOSS HDD

#### Marine Scotland

The key point of contact within SHE T is the project's Marine Consents Manager.

MS is the licensing authority for all works and as such all consent conditions that require to be met must be demonstrated to them either upon request or as agreed in the license.

Specific contact with MS will be made:

- 1. prior to commencement of the HDD works for the following purposes:
  - to notify the commencement of the HDD works
  - to submit and seek approval of a Communications Strategy (i.e. this document)
  - to submit and seek approval of an CEMP for the HDD works and any subsequent updates at appropriate times
- 2. during the HDD works for the following purposes:
  - to allow access for an authorised Enforcement Officer to inspect the works
  - to notify any changes to the works that may affect the validity of the licence
  - to submit and seek approval of plans to mitigate navigational dangers or risks, where required
- 3. on completion of the HDD works for the following purposes:
  - to notify the completion of the HDD works

#### **Scottish Natural Heritage**

The key point of contact within SHE T is the project's Lead Environmental Project Manager.

SNH have a specific interest in the Noss HDD works as the exit point location on the seabed and the associated local cable laying operations are in the vicinity of the Noss Head MPA.

#### **Joint Nature Conservation Committee**

Refer to Section 3.1

#### Maritime and Coastguard Agency

Refer to Section 3.1

#### **Scottish Environmental Protection Agency**

Refer to Section 3.1

#### **Scottish Fishermen's Federation**

Refer to Section 3.1



#### North and East Coast Regional Inshore Fisheries Group -

Refer to Section 3.1

#### The Crown Estate

Refer to Section 3.1

United Kingdom Hydrographic Office

Refer to Section 3.1

#### **Ministry of Defence**

Refer to Section 3.1

#### Wick Harbour

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

However, ABB may also communicate with the Wick Harbour Master regarding, for example, NtMs.

SHE T will maintain contact with the Wick Harbour Master to provide details of planned and ongoing operations that may affect fishing activities.

ABB will maintain contact with the Wick Harbour Master via NtMs.

#### Local Tourist Operators

The key point of contact within SHE T is the project's Community Liaison Manager for the Highland local authority area.

SHE T will maintain contact with the local marine tourist operators to provide details of planned and ongoing operations that may affect recreational sailing in the area of the works. **Local Residents** 

The key point of contact within SHE T is the project's Community Liaison Manager for the Highland local authority area.

Contact with the local residents will continue to be made regularly in a variety of ways. Email, telephone, public meetings, social media, mail drop and liaison with local community groups are amongst the methods that will continue to be adopted. A biannual newsletter is also produced and delivered by post to all properties in the local area.

#### **Clan Sinclair Trust**

The key point of contact within SHE T is the project's Community Liaison Manager for the Highland local authority area.

SHE T will maintain contact with the Clan Sinclair Trust to provide details of planned and ongoing operations that may affect the local area.

#### Sinclair's Bay Community Council

The key point of contact within SHE T is the project's Community Liaison Manager for the Highland local authority area.

SHE T will maintain contact with Sinclair's Bay Community Council to provide details of planned and ongoing operations that may affect the local area.

#### Wick Community Council



The key point of contact within SHE T is the project's Community Liaison Manager for the Highland local authority area.

SHE T will maintain contact with Wick Community Council to provide details of planned and ongoing operations that may affect the local area.

# 3.3 OFFSHORE CABLE INSTALLATION

#### **Marine Scotland**

The key point of contact within SHE T is the project's Marine Consents Manager.

MS is the licensing authority for all works and as such all consent conditions that require to be met must be demonstrated to them either upon request or as agreed in the license.

Specific contact with MS will be made:

- 1. prior to commencement of the works for the following purposes:
  - to submit and seek approval of a cumulative impact review, if necessary
  - to notify the commencement of the works
  - to submit and seek approval of any updates to the CaP at appropriate times (specifically, when further information relating to the planned rock placement quantities becomes available)
  - to submit and seek approval of any updates to the FLMAP at appropriate times
  - to submit and seek approval of a Communications Strategy (i.e. this document)
  - to submit and seek approval of an CEMP and any subsequent updates at appropriate times
  - to agree recipients of real-time data relating to the planned works
- 2. during the works for the following purposes:
  - to allow access for an authorised Enforcement Officer to inspect the works
  - to notify any changes to the works that may affect the validity of the licence
  - to submit and seek approval of plans to mitigate navigational dangers or risks, where required
  - to submit and seek approval of any updates to the CaP at appropriate times (specifically, when further information relating to the planned rock placement quantities becomes available i.e. post-trenching, post-cable laying and postmechanical backfill)
- 3. on completion of the works for the following purposes:
  - to notify the completion of the works
  - to submit a written report on the nature and quantity of deposits
  - to submit an assessment of any risks posed by the installed cable

#### Scottish Natural Heritage

Refer to Section 3.1

**Joint Nature Conservation Committee** 

Refer to Section 3.1



#### Maritime and Coastguard Agency

Refer to Section 3.1

#### Whale and Dolphin Conservation

Refer to Section 3.1

#### Scottish Environmental Protection Agency

Refer to Section 3.1

#### **Scottish Fishermen's Federation**

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

The SFF represent predominately the mobile commercial fishing fleet that operates in deeper waters in the Moray Firth. SHE T will engage with the SFF formally at regular meetings (also attended by representatives from MS) to ensure that the operations of both parties are planned to mitigate any interface.

Furthermore, SHE T will update the SFF when further information relating to the planned rock placement quantities becomes available i.e. post-trenching, post-cable laying and post-mechanical backfill)

#### North and East Coast Regional Inshore Fisheries Group

The key point of contact within SHE T is the project's Fisheries Liaison Manager.

This organisation's members are predominantly local fishermen who operate near the area of planned works. Regular dialogue between the FLM and the RIFG will be maintained prior to and during the cable installation work, noting that both mobile and static gear commercial fishing operations are present in the area. SHE T will also liaise with individual members regarding potential compensation for loss of earnings due to requested creel removal.

#### The Crown Estate

Refer to Section 3.1

#### **United Kingdom Hydrographic Office**

Refer to Section 3.1

#### Ministry of Defence

Refer to Section 3.1

#### **Buckie Harbour**

Refer to Section 3.1

#### Portgordon Harbour

Refer to Section 3.1

#### **Wick Harbour**

Refer to Section 3.1

#### **Royal Yacht Association**

Refer to Section 3.1

Local tourist operators



Refer to Section 3.1 and 3.2

#### **Beatrice Offshore Windfarm Limited (BOWL)**

The key point of contact is the project's Lead Project Manager for the offshore installation.

Communication with BOWL will be required to ensure that technical, physical and programming interfaces are mitigated, particularly within the first 8km off the Moray coast where the BOWL export cable and this project's cable are relatively close to each other.

#### Moray Offshore Renewables Limited (MORL)

The key point of contact is the project's Lead Project Manager for the offshore installation.

Communication with MORL will be required to ensure that technical and physical interfaces are mitigated, particularly where the 4 No. MORL circuits are planned to cross this project's installed cable in the Moray Firth.

The project has no programming interface with MORL as the MORL installation programme commences after this project's offshore installation is complete.

#### Oil and gas exploration (Suncor Energy, Premier Oil and First Oil Expro)

The key point of contact is the project's Lead Project Manager for offshore installation.

Regular communication between these companies and SHE T will be required as the cable is located in places within DECC licenced exploration blocks.

#### SHEFA

The key point of contact is the project's Lead Project Manager for offshore installation.

SHEFA have an existing telecoms asset (the SHEFA2 communications cable) that the C-M cable will be installed in close proximity to. Regular communication between SHEFA and SHE T will be maintained to ensure that SHEFA are aware of the works and that physical interface is avoided.

#### **Portgordon and Buckie Residents**

Refer to Section 3.1 and 3.2 (Local Residents).

#### Wick, Staxigoe and Papigoe Residents

Refer to Section 3.2 (Local Residents)



## 3.4 ROCK PLACEMENT

#### Marine Licence provision

Rock will be required in places to provide the installed cable with the necessary level of physical protection where the use of excavated arisings from the trench is inadequate.

The marine licences therefore allow for the following quantities of rock as permanent deposits:

	Marine Licence	Rock quantity (T)
•	Noss (Caithness) to 12nm limit – licence No. 04368/16/0	67,260
•	Portgordon (Moray) to 12nm limit – licence No. 04878/13/0	11,762
•	Outside 12nm limit – licence No. 06043/16/0	<u>122,369</u>
	Total	<u>201,391T</u>

These quantities have been derived from analysis of intrusive ground investigation carried out on the licenced cable route by SHE T.

The cable installation will be carried out in the following distinct sequence:

- Pre-lay UXO (unexploded ordnance) survey
- Boulder clearance
- Post boulder clearance survey
- Trenching first pass
- Trenching second pass
- Post trenching survey
- Cable laying
- Post cable laying survey
- Mechanical backfill
- Post mechanical backfill survey
- Rock placement
- Post rock placement survey

The surveys identified above feed into an iterative process, set out in the following paragraphs. The process will aid the identification of any requirements to amend cable protection rock tonnages.

The post trenching survey will provide data to ascertain the actual depth of trench that has been excavated. This data will be compared with the data obtained from the ground investigation and will allow if needed the proposed rock quantity and berm heights to be recalculated based upon the data from the post trenching survey. It will assume that the subsequent cables will be laid in the base of the trench and that sufficient excavated arisings will be returned into the trench during mechanical backfill. Once this re-calculation is completed, should there be any increase, the Cable Plan will be revised and a summary of the changes will be issued to MS and all stakeholders identified in this Communications



Strategy for information. Fishing stakeholders will furthermore be notified of the changes via an update to the FLMAP. This summary will include details of latitude and longitude for the end points of each rock berm along with the berm's profile and height above mean sea bed level. The FLMAP will be revised and re-issued to MS and the SFF for information.

The post cable laying survey will provide data to ascertain the actual depth of lowering i.e. the position of the cables within the excavated trench. This data will be compared with the data obtained from the post trenching survey and will allow if needed the proposed rock quantity and berm height to be re-calculated based upon the data from the post cable laying survey. It will assume that sufficient excavated arisings will be returned into the trench during mechanical backfill. Once this re-calculation is completed, should there be any increase, the Cable Plan will be revised and a summary of the changes will be issued to MS and all stakeholders identified in this Communications Strategy for information. Fishing stakeholders will furthermore be notified of the changes via an update to the FLMAP. This summary will include details of latitude and longitude for the end points of each rock berm along with the berm's profile and height above mean sea bed level. The FLMAP will be revised and re-issued to MS and the SFF for information.

The post mechanical backfill survey will provide data to ascertain the actual depth of cover over the installed cables. This data will be compared with the data obtained from the post cable laying survey and will allow if needed the proposed rock quantity and berm height to be re-calculated based upon the data from the post mechanical backfill survey. Once this re-calculation is completed, should there be any increase, the Cable Plan will be revised and a summary of the changes will be issued to MS at least four weeks prior to commencement of rock placement activities. This summary will include details of latitude and longitude for the end points of each rock berm along with the berm's profile and height above mean sea bed level. The FLMAP will be revised and re-issued to MS and the fishing stakeholders for information. The proposed rock quantity from this survey will be used as the basis of the actual quantity to be deposited.

It should be noted that there may be instances where rock placement is required but there is no impact on mean sea bed level.

At any point during the above listed surveys, should the re-calculated quantities of rock indicate deposits in excess of the licenced quantities, then SHE T will notify MS of this (in accordance with Condition 35 of the Portgordon marine licence, Condition 33 of the Outside 12nm marine licence and Condition 34 of the Noss marine licence).

The post rock placement survey will, when compared with the post mechanical backfill survey, provide confirmation of the actual quantities of rock deposited on the seabed. It will also provide detail of the location where rock has been placed. Should any differences be identified between the planned and actual locations or profile of berm, then the information will be provided to all legitimate users of the sea and relevant stakeholders, either though direct communication or through the issue of NTMs.

At this point, SHE T will issue a report to MS setting out the information required in Condition 44 of the Portgordon marine licence, Condition 41 of the Outside 12nm marine licence and Condition 46 of the Noss marine licence. This is planned to be issued as one document and be issued within 8 weeks of completion of all licenced operations.



## 3.5 POST COMPLETION

Upon completion of the licenced operations, SHE T will provide to UKHO copies of the marine licences and, wherever possible, as laid plans of the deposits. SHE T will also notify MCA, NLB, KIS-ORCA and UKICPC of the cable route and a 500m zone either side as a hazardous area for anchoring.

Within one week of completion of the licenced operations, SHE T will notify MS of completion of the operations relating to the licences.

Within four weeks of completion of the licenced operations, SHE T will provide MS with details of the nature and quantity of deposits.

Within eight weeks of completion of the licenced operations, SHE T will submit to MS an assessment of any risk posed by the asset and details of burial depths, locations and heights of any rock berms.



# 4 **APPENDICES**

# 4.1 APPENDIX 4.1 – CURRENT PROJECT PROGRAMME

#### Scottish and Southern Energy

#### LT21 Caithness HVDC Reinforcement

Marine Operations: current programme

Schedule of activities	Date:	<u>19.07.16</u>	Doc No.:	LT000021-PRG-003	Revision:	<u>7.0</u>	Revision note:	Update to reflect Contractor's Revision 27 installation programme

Loostion	Year			2016			2017															
Location	Month	August	September	October	November	December	January		February	March	April		May		June	July	August	Septem	ber	October	November	December
Portgordon (ch. 0+000)							1			1					ull_in		1		n.	CK	,	
Cable joint (ch. 56+500)							Boulder clearance	Post boulder clearing survey			Trenching first pass	TdM - ssed puopas Buildhore Post trenching survey - Mp1	Trenching second pass - WP2	Cable lay campaign No. Linut	Cable lay campaign No. 2 (incl. surger)	Cable joint	of highward Provide the set of th	RE	dx m/s	(ujag) (u	Post rock placement survey	
NUSS (CR. 113+000)				1		1	1		1		1	î		• î			1					

#### Programme dates

Activity	Start date	Finish date	Duration (days)
Boulder clearance	11/01/2017	21/01/2017	10
Post boulder clearance survey	21/01/2017	26/01/2017	5
Trenching first pass	25/03/2017	13/04/2017	19
Trenching second pass WP1	17/04/2017	30/04/2017	13
Post trenching survey WP 1	30/04/2017	02/05/2017	2
Trenching second pass WP2	03/05/2017	16/05/2017	13
Post trenching survey WP 2	16/05/2017	18/05/2017	2
Cable pull-in (Portgordon)	13/05/2017	18/05/2017	5
Cable lay - campaign 1 (incl. survey)	18/05/2017	02/06/2017	15
Cable pull-in (Noss)	20/06/2017	25/06/2017	5
Cable lay - campaign 2 (incl. survey)	25/06/2017	10/07/2017	15
Cable joint	10/07/2017	17/07/2017	7
Trench backfill	28/07/2017	11/08/2017	14
Post trench backfill survey	11/08/2017	16/08/2017	5
Rock placement (berm)	10/09/2017	19/11/2017	70
Post rock placement survey	19/11/2017	30/11/2017	11
Rock n/s (Noss)	10/09/2017	26/09/2017	16
Rock n/s (Portgordon)	26/09/2017	12/10/2017	16
Post rock n/s survey (Noss)	12/10/2017	13/10/2017	1
Post rock n/s survey (Portgordon)	13/10/2017	15/10/2017	2
Guard vessels (varying quantity)	25/03/2017	30/11/2017	250



# 4.2 APPENDIX 4.2 – COMMUNICATION LIST

Appendix 4.2



Communication List – Caithness Moray HVDC Project – Offshore installation





# 4.3 APPENDIX 4.3 – COMMUNICATION PROGRAMME

#### LT21 Caithness HVDC Reinforcement

Appendix 4.3

#### Marine Operations: notifications schedule

			1		1												-						
Notification	Portgordon	Noss	Outside 12nr	m Year Month	lune	luby	August	2016 Sentember	October	November	December	lanuary.	February	March	April	May	2 June	2017 July	Auquet	Sentember	October	November	December
brigordon landfall HDDs Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify the Marine Rescue Co-ordination Centre of proposed date of commencement of operations (28 days notice) Notify Mighter appropriate marine users of proposed date of commencement of operations (28 days notice) Issue MMMP to Whale and Dolphin Conservation prior to commencement of operations (30 days notice) Carry out the works Notify The Hydrographic Office of progress of the works (as necessary) Consult with local navigation authority and the Harbour Master(s) during the operations (as necessary) Issue Notices to Mariners following any local navigation issues (as necessary) Notify Marine Scotland of any changed information relating to the marine licence (as necessary as soon as reasonably practicable) Notify MS of the completion of operations (within 1 week of completion) Notify More datalis of deposits (within 4 weeks of completion) Notify the Hydrographic Office and MS of completion) Notify the Hydrographic Office and MS of completion) Notify the Hydrographic Office and MS of completion)	2 6 5 4 12 15 22 30 35 36 37 39 40 41														ţ ţ				regen				
bits         Head landfall HDDs           Notify Marine Scotland of proposed date of commencement of operations (28 days notice)         Notify Marine Scotland of proposed date of commencement of operations (28 days notice)           Notify Kingfisher Information Service of proposed date of commencement of operations (28 days notice)         Notify the Maritime Rescue Co-ordination Centre of proposed date of commencement of operations (10 days notice)           Notify He Maritime Rescue Co-ordination Centre of proposed date of commencement of operations (10 days notice)         Carry out the works           Notify The Hydrographic Office of progress of the works (as necessary)         Social date (10 days notice)           Notify The Hydrographic Office of progress of the works (as necessary)         Social of any changed Information relating to the marine licence (as necessary)           Notify Marine Scotland of any changed Information relating to the marine licence (as necessary as soon as reasonably practicable)         Notify MS, MCA, NLB and KIS-ORCA of dangers to navigation (as necessary and as soon as reasonably practicable)           Notify MS of the completion of operations (within 1 weeks of completion)         Notify MS of the completion of operations (within 1 weeks of completion)           Notify the Hydrographic Office and MS of completion)         Notify MS of the completion of operations of completion)		1 5 4 3 14 21 29 34 35 36 41 42 43			In place N/A N/A N/A N/A	ŧ.	L								1 1								
fishere cable installation Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify Marine Scotland of proposed date of commencement of operations (28 days notice) Notify Marine Scotland of proposed date of commencement of operations (10 days notice) Issue MMP to Whale and Dolphin Conservation prior to commencement of operations (30 days notice) Boulder clearance Trenching second pass - southem Trenching second pass - southem Trenching second pass - southem Revise and re-issue Cable with updated planned rock placement quantities following post trenching survey Cable lay - southem Cable lay - southem (including subsea joint) Revise and re-issue Cable with updated planned rock placement quantities following post cable lay survey Mechanical backfill Revise and re-issue Cable with updated planned rock placement quantities following post cable lay survey Mechanical backfill Revise and re-issue Cable with updated planned rock placement quantities following post cable lay survey Mechanical backfill Revise and re-issue Cable with updated planned rock placement quantities following post cable lay survey Mechanical backfill Revise and re-issue Cable with updated planned rock placement quantities following post cable lay survey Mechanical backfill Revise and re-issue Cable with updated planned rock placement quantities following post cable lay survey Michanical navigation authority and the Hafbourk Master(s) during the operations (as necessary) Sueu Notices to Mariners following any local navigation issue (as necessary) Notify Marine Scotland of any changed information relating to the marine licence (as necessary as soon as reasonably practicable) Notify Ms. (A. U. B. and KIS-CoRCA of dangers to navigation (as necessary and withi	2 6 5 4 12 15 22 30 35 36 37 39 40 41 42	1 5 4 3 14 29 34 35 36 41 42 43 44	2 6 5 4 12 15 21 28 33 34 35 37 38 39 40								‡ ‡			‡ + + + +			-					ţ	t



# 4.4 APPENDIX 4.4 – SUBSEA CABLE AWARENESS FLIERS

# Caithness – Moray HVDC Link



#### Subsea Cable Information

The Caithness - Moray HVDC Link will be a twin bundled High Voltage DC interconnector (single cable diameter 132mm) installed by ABB HVC for Scottish Hydro Electric Transmission (SHE Transmission) stretching approximately 113 km across the Moray Firth from Portgordon in Moray to Noss Head in Caithness. At the Portgordon landfall (see chart above) horizontal directional drilling will be carried out between August 2016 and April 2017. Initially one drill will be completed, with 3 more drills planned thereafter, resulting in 3 x 273mm diameter cable ducts and 1 x 168mm diameter cable duct.

During the course of these activities work boats will be required at different times during the hours of daylight to recover drilling equipment from the seabed or carry out diver inspections. The yellow area shown on the chart above is a working area 500m wide defined by the coordinates below. Although work boats will be transiting in this area this should not disrupt local creeler or fishing activities.

When completed the cable duct ends will sit 1m above the seabed approximately 1.6kms from shore and will remain exposed until the cables are installed and protection completed by December 2017. The position of the cable duct ends will be the subject of a further Notices to Mariners when drilling has taken place.



**Power Distribution** 

Position	Latitude	Longitude
NE Corner	57° 40' 46.002"N	003° 01' 38.270"W
SE Corner	57° 39' 48.337"N	003° 01' 39.116"W
SW Corner	57° 39' 48.463"N	003° 02' 09.284"W
NW Corner	57° 40' 46.128"N	003° 02' 08.452"W



# Caithness – Moray HVDC Link



## Subsea Cable Information

The Caithness - Moray HVDC Link will be a twin bundled High Voltage DC interconnector (single cable diameter 132mm) installed by ABB HVC for Scottish Hydro Electric Transmission (SHE Transmission) stretching approximately 113 km across the Moray Firth from Portgordon in Moray to Noss Head in Caithness. A trench backfill trial will take place in August / September 2016 in the vicinity of KP83.5 (see chart above). The cable installation commences in January 2017 and will be completed by December 2017. The sequence of operations is boulder clearance, pre-cut trenching, cable laying, back filling and rock placement. Notices to Mariners will be issued before each stage of the installation to ensure all mariners are kept fully informed. During the installation phase there will be a working area 250m either side of the cable route. Guard vessels will be positioned strategically along the route to inform other mariners of the working area.

Position	Latitude	Longitude
Portgordon	57° 39' 48.400"N	003° 01' 54.200"\
2	57° 41' 16.174"N	003° 01' 52.683"\
3	57° 41' 25.922"N	003° 01' 45.202"V
4	57° 42' 55.278"N	003° 01' 32.973"V
5	57° 43' 08.936"N	003° 01' 25.290"V
6	57° 43' 49.683"N	003° 01' 20.537"V
7	57° 49' 26.177"N	002° 55' 17.757"V
8	57° 49' 33.371"N	002° 55' 15.832"V
9	57° 53' 35.890"N	002° 50' 40.407"V
10	57° 53' 50.715"N	002° 49' 57.985"V
11	57° 53' 56.986"N	002° 49' 50.400"V
12	57° 54' 12.707"N	002° 49' 50.805"V
13	58° 07' 55.423"N	002° 33' 58.884"V
14	58° 08' 19.398"N	002° 33' 51.138"V
15	58° 10' 56.068"N	002° 34' 07.059"V
16	58° 11' 04.566"N	002° 34' 12.116"V
17	58° 13' 12.443"N	002° 34' 14.957"V
18	58° 27' 22.719"N	002° 51' 06.462"V
19	58° 27' 42.109"N	002° 52' 48.305"V
20	58° 27' 40.534"N	003° 01' 35.375"V
21	58° 27' 45.057"N	003° 02' 12.534"V
22	58° 27' 45.163"N	003° 02' 40.386"V
Noss Head	58° 28' 02.607"N	003° 03' 18.818"V

## **Simplified Route Position List**

NB. If a full Route Position List is required please contact Nigel Walker (see Useful Contacts)







# 4.5 APPENDIX 4.5 – NOTICE TO MARINERS EXAMPLE

#### **Reporting information affecting Admiralty Products**

For new information affecting Admiralty Charts and Publications forward to <u>sdr@ukho.gov.uk</u> To report issues related to ENCs or their display forward to <u>customerservices@ukho.gov.uk</u> This form H.102 and instructions are available online at <u>www.ukho.gov.uk/msi</u>

Date	10/06/2	2016	Ref.	Number									
Name of ship or sender													
IMO number if applicable													
Address	Offshore I PO Box 5	Offshore Projects High Voltage Cables - Field Installations PO Box 546, 371 23, Karlskrona, Blekinge, SWEDEN											
E-mail/Tel/Fax of sender													
General Locality	Moray Fir	th, Noss He	ad										
Subject	CMS Proj	ect – Air Div	ring Oper	ations Nos	s Head								
Position (see Instruction 2)	Latitude	58° 27.852 58° 27.851 58° 27.840 58° 27.836	2'N I'N D'N 6'N	Longitude	003° 02.91 003° 02.91 003° 02.93 003° 02.94	0'W 0'W 5'W 2'W							
	GPS	WGS84	Datum	UTM30N	Accuracy								
Admiralty Charts affected	115 Mora	y Firth		Edition 2013									
Latest Weekly Edition of Notice to Mariners held					·								
Replacement copy of Chart No (see Instruction 3)	IS NOT r	equired											
ENCs affected													
Latest update disk applied	Week:												
Make, model and or age of ECDIS if applicable													
Publications affected (NP/DP number, Edition No.)													
Date of latest supplement/update, page & Light List No. etc													

# HYDROGRAPHIC NOTE

Details of anomaly / observation:

From 27 June 2016 for a period of approximately 7 days between the hours of 07.00 & 21.00 (weather dependent) air diving operations at the locations below will take from the vessel MV Teal with support from the AHT Shuna.

Latitude	58° 27.852'N	Longitude	003° 02.910'W
	58° 27.851'N		003° 02.910'W
	58° 27.840'N		003° 02.935'W
	58° 27.836'N		003° 02.942'W

The coordinates above denote the ends of 4 x 273mm cable ducts protruding approximately 1m above the seabed.

Vessel details and contact information are given below.

MV Teal – Skipper:



Dimension	ns
Length Overall	18.25m
Length Waterline	17.48m
Beam	8.02m
Design Draught	1.40m
Keel Draught	1.85m

Shuna – Skipper:



Dimensions		
Length overall	16.89m	
Beam overall	5.29m	
Draught aft	2.30m	

ABB contact: Caithness-Moray-Shetland HVDC Link Construction Manager

# HYDROGRAPHIC NOTE

**H.102** (V8.0 Oct 2014)

Name of observer/reporter	Richard Creed			
H.102A Submitted No	H.102B Submitted No			
Tick box if not willing to be named as source of this information				

Alternatively use our new H Note App located here: <u>www.admiralty.co.uk/apps/h-note</u>

