CAITHNESS – MORAY HVDC REINFORCEMENT

FISHERIES LIAISON AND MITIGATION ACTION PLAN

Revision	Date	Prepared by	Reviewed by	Approved By
5	26/01/16	[redacted]	[redacted]	[redacted]

Contents

GLOSSARY

ABB	ABB AB (the Contractor)
FLMAP	Fisheries Liaison & Mitigation Action Plan
FLM	Fisheries Liaison Manager
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables
FLR	Fisheries Liaison Representative
HVDC	High Voltage Direct Current
IFG	Inshore Fisheries Group
KISCA	Kingfisher Information Service Cable Awareness
MCA	Maritime & Coastguard Agency
NLB	Northern Lighthouse Board
SCUK	Subsea Cables UK
SDR	Source Data Recording
SFF	Scottish Fishermen's Federation
SHET	Scottish Hydro Electric Transmission Plc. (The Client)
SSE	Scottish & Southern Energy
UKHO	United Kingdom Hydrographic Office

1 INTRODUCTION

1.1 FOREWORD

The FLMAP sets out the fisheries liaison and mitigation action measures to be implemented on the Caithness – Moray HVDC Reinforcement subsea cable circuit ("the cable").

The FLMAP 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 consent conditions for the project.

SHET were granted authorisation from the 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.

Following on from this authorisation, in early 2015, SHET initiated regular meetings with representatives of the fishing industry and Marine Scotland to discuss this project. Information from these meetings has informed the FLMAP. It has also drawn on the approach adopted in the FLMAP documents produced elsewhere in Scotland for similar projects subject to similar licence requirements.

The FLMAP will be issued to the fishing industry organisations as part of the formal consultation process that commenced in 2015. Responses to the FLMAP will be considered before it is submitted to Marine Scotland for review, in accordance with the marine licence conditions for the cable.

A list of the organisations that are being consulted on the FLMAP is presented at Appendix B. Responses to the draft document will be added to Appendix C upon receipt.

1.2 PURPOSE OF REPORT

The potential effects of the cable on marine activities and the marine environment were considered in two separate assessments. The first, for the southern section of the cable (from Portgordon to a point north of Smith Bank) was conducted in 2009 with subsequent updates and the second, for the northern section of cable (from Noss Head to a point north of Smith Bank) was conducted in 2011.

As a result of the evidence presented in these assessments, Marine Scotland specified a licence condition that required the production of a FLMAP. The FLMAP has therefore been produced to ensure that ABB and SHET have a mitigation plan in place for the project that meets the relevant marine licence requirements set out by the Scottish Government. These conditions will be included in Appendix A. The function of the FLMAP is therefore to address the potential effects highlighted in these assessments and identify how to minimise and mitigate potential adverse impacts on local fishing communities.

The FLMAP has been drawn up in accordance with industry and Government guidance for fisheries liaison (detailed in Section 3).

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:

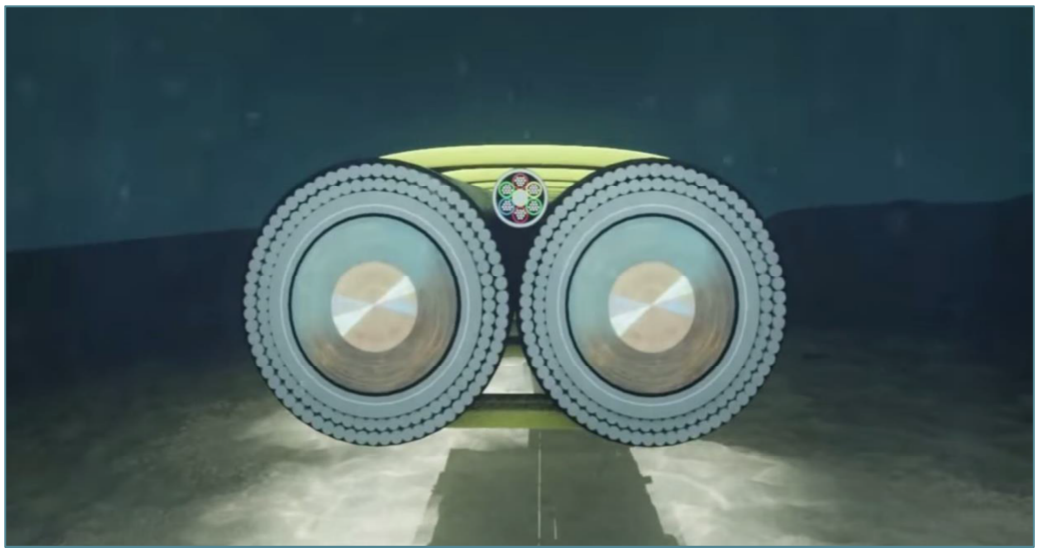

Figure 1: Cable bundle cross-section

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.

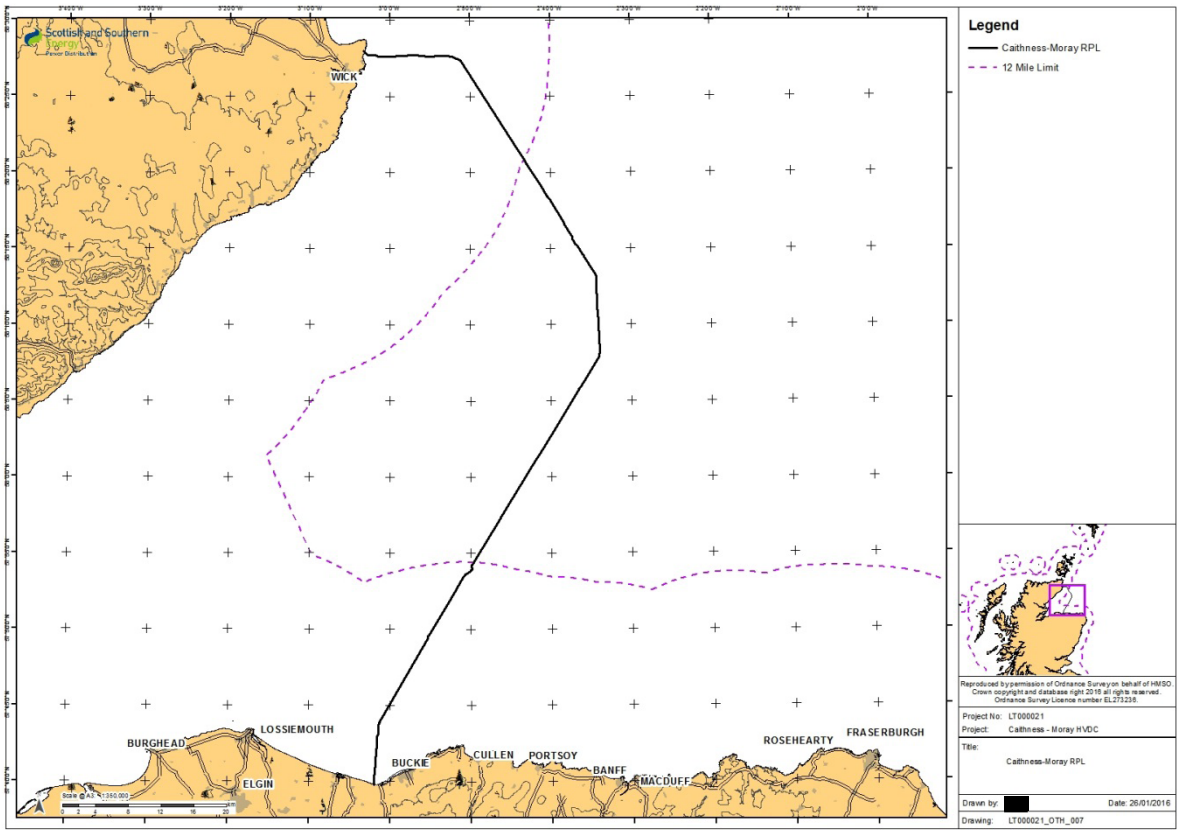

Figure 2: Caithness – Moray cable route.

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 using rock armour.

Surveys will be undertaken to verify cable position, mechanical backfill and rock placement profiles.

2.2 INSTALLATION PROGRAMME

Below is the proposed timeline for cable installation.

Action	Date
Portgordon ground investigations	November 2015 – January 2016
Pre-lay survey	March 2016
Installation of Coastal Ducts	March – April 2016
ABB Sea Trials	May 2016

Boulder clearance & (1.8m) trench digging	Jan – March 2017
Post trenching survey	March 2017
2 x cable laying (join in middle)	April / May 2017
Recovering trench (up to 1m)	May / June 2017
Post trench backfill survey	June 2017
Rock armour placement (where required)	July - Sept 2017
Final Survey of cable route	September 2017

2.3 FISHERY INTERACTIONS

The cable route would unavoidably cross some important fishing grounds in the Moray Firth, including demersal trawl grounds, scallop grounds and inshore shellfish grounds. The principal fishing activity along the cable route is dredging for scallops (*Pecten maximus*) in the central part of the Firth and trawling for *Nephrops norvegicus* (Dublin bay prawns or langoustines), particularly in the waters just offshore of the southern and northern ends of the cable. In the most part this activity is carried out by larger vessels (over 10m). This may include vessels from ports outside of the Moray Firth and nearby regions.

The other significant fishery is potting (creeling) activity carried out by inshore boats (under 10m) based at fishing ports in the Moray Firth region. This activity mainly overlaps with the proposed cable route in coastal waters near the two cable landfalls. These fisheries target shellfish such as lobster (*Homarus gammarus*) and brown crab (*Cancer pagurus*).

3 FISHERIES LIAISON STRATEGY

3.1 FISHERIES LIAISON MANAGER

Guidance for fisheries liaison has been published by SCUK in 2012. This guidance recommends that a FLM is appointed and retained through the life of a project, either as an employee of the cable operator or a specialised third party contractor / consultant. The role of the FLM is to liaise between the cable operator and the fishing industry during survey and installation period to communicate and where possible mitigate potential hazards to fishing during these.

The approach to fisheries liaison is based upon both the approach set out in SCUK guidance and also, where applicable the FLOWW publication "Recommendations For Fisheries Liaison - Best Practice Guidance for Offshore Renewable Developers" (BERR, May 2008), and is consistent, where applicable, with the revised guidance issued by the Crown Estate in January 2014.

It should be noted that some slightly different terminology is used in the SCUK and FLOWW guidance documents relevant to this FLMAP. The differences are summarised in the table below and the choice of terminology used in this project is underlined:

Task	**SCUK**	**FLOWW**
Professional advisor appointed and retained by developer & contractor to provide guidance on fisheries issues.	Fishery Liaison Manager (FLM)	Company Fishery Liaison Officer (CFLO)
Fishing industry operators located aboard construction / survey vessels to provide local advice during operations.	Fishery Liaison Representative (FLR)	Fishing Industry Representative (FIR)

From the outset, SHET and ABB have considered that the FLM for this project should be an independent party, capable of providing informed and unbiased advice. Where necessary, ABB will secure the services of guard vessels to ensure that the cable installation proceeds smoothly and safely.

SHET has appointed Telesecure Ltd to provide fisheries liaison services to this project and they have appointed Mr. Tristan Southall to act as FLM. Both Telesecure Ltd and the appointed FLM have good relationships with the many of the fishing organisations along the cable route, as well as many years of experience working with the fishing industry. Telesecure Ltd is well placed to coordinate the liaison work and to provide objective expert advice to both SHET and ABB. A schematic illustration of the approach to fisheries liaison that will be used in this project is shown in Figure 3 below.

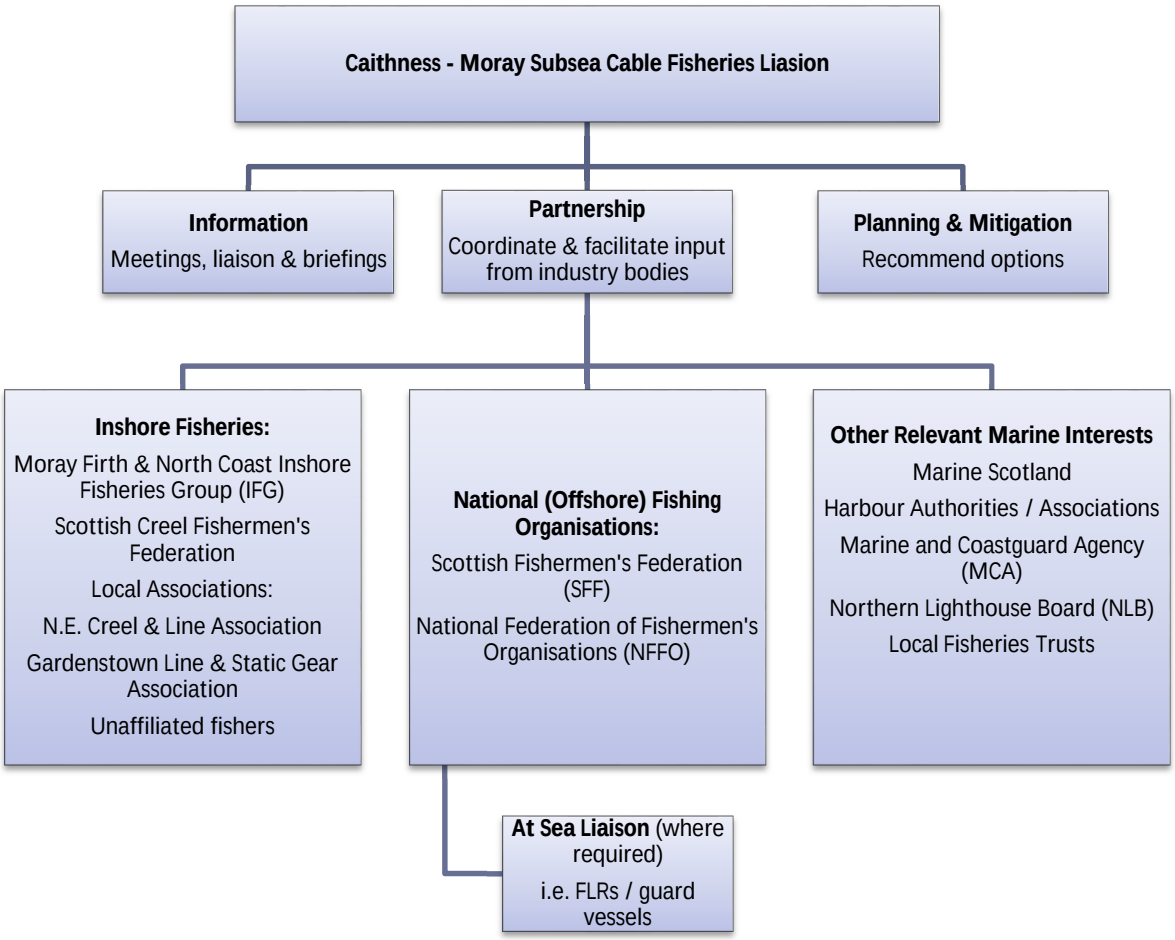

Figure 3: Fisheries liaison strategy

3.2 FISHERIES LIASION REPRESENTATIVE / GUARD VESSELS

In addition to a FLM, it is also considered to be good practice, where required, to employ the services of guard vessels and/or local FLRs during the construction phase of a project. Guard vessels are used to protect the ongoing installation works from possible adverse impacts with, or on, fishing vessels that may encroach upon the working area

No FLR or guard vessels have yet been contracted however, ABB and SHET will make use of guard vessels where they consider this necessary. The need for an FLR and/or guard vessels will be informed by consultation with the fishing industry and regulators over the appropriate level of guard vessel coverage for different sections of the cable. Guard vessels will be employed according to the following criteria:

- A fair and open tendering process will be followed prior to the appointment of any supplier of guard vessels, in order to ensure the provision of best value to electricity customers.

- Vessels are of sufficient seaworthiness and equipped to a suitable standard meeting appropriate safety requirements to enable them to carry out the required duties safely and effectively. These requirements are set out in the following documents:
  - SFF Marine Safety Forum Guard Vessel Good Practice for UK Fishing Vessels.
  - The SFF/NFFO Guard Vessel Operational Procedures Manual
- All guard vessels will be fitted with satellite tracking such that the employer and consultees can monitor their number and position.

4 MITIGATION & ACTION PLAN

4.1 COMMUNICATION

It is a licence consent condition raised by the Scottish Government that advance notice of activities is provided to mariners. ABB and SHET recognise the critical importance of clear and effective communication. There are a number of situations where clear and effective communication is required to equally ensure the safety of navigation and efficient installation activities. Details of when and how communication will be undertaken are set out below:

4.1.1 Notice of construction activities

ABB and SHET will provide a minimum 10 calendar days notice of all upcoming activities, unless this is not possible owing to *force majeure*. Information shall be communicated in Notices to Mariners.

Notices to Mariners shall be communicated to the fishing industry along all or part of the route, as appropriate, by the following methods:-

- Direct e-mail communication to fishermen, their representative organisations and agents.
- Notification to SDR and nav warnings at UKHO
- Notification to Fleet Operations at Northwood
- Direct e-mail communication to harbour masters and navigation authorities.
- Postal communication to fishermen and organisations on request.
- Notices placed in the Kingfisher Cable Awareness bulletins
- Notices placed on websites maintained by the FLM.
- Notices placed, as appropriate, in the media publications (such as Fishing News) which are customarily used to inform the fishing industry of such activity.

The level of detail set out in these notices shall be sufficient to allow fishermen to identify the timing and location of activities so that they can avoid adverse interaction with the construction of the cable.

4.1.2 Notice of Hazards

ABB and SHET will provide information about any either temporary or on-going potential hazards to fishermen and fishing activity that may arise during the construction and operation of the cable. This information will be communicated by:-

- Using radio and telephone equipment to alert any and all fishing vessels in the vicinity of the hazard immediately that its existence is known.
- Installing appropriate temporary navigation warnings of the hazard (lighting, buoyage and / or use of guard vessels) as soon as is practicable.
- Issuing hazard notices to fishermen, representative organisations and agents as soon as practicable, identifying the nature of the hazard and its location.

In addition, the methods of communication listed in 4.1.1, as appropriate, shall be used to provide information about hazards. The level of detail and the timing of hazard notices shall be sufficient to allow fishermen to avoid interaction with the hazard. The licence also requires that in the event of the licensee becoming aware of information indicating that any

part of the licensed works has become a danger to navigation or protection of legitimate users of the sea, the licensee shall immediately inform the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB) and the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) to communicate the hazard to the maritime community. The licensee shall be liable for all costs.

4.1.3 Final Installation Coordinates

Once installation is completed, the as-laid route of the installed cable (and a cable corridor of 500m either side of it) shall be communicated as a hazardous area for anchoring to Marine Scotland, MCA, UKHO, NLB, the Kingfisher Information Service Cable Awareness (KISCA) and the UK International Cable Protection Committees in accordance with licence conditions (i.e. within 1 month of the installation of each section of the cable, subject to operational constraints). The fishing industry shall be informed of the installed route in accordance with the licence conditions.

Information about the cable route shall be communicated using the methods listed in item 4.1.1 as appropriate and in addition details of the cable route shall be provided to enable it to be shown on hydrographic charts.

4.1.4 Notice of Maintenance Activity

The schedule of any maintenance, survey or repair activities will be well publicised to fishermen in advance as set out in 4.1.1.

4.2 MITIGATION

ABB and SHET will implement measures to mitigate the potential impact of the construction and operation of the cable in line with national guidance for cable operators as follows:

4.2.1 Cable burial

The cable shall be buried as per the approved design and in accordance with any requirements set out in the relevant Marine Licence conditions. This will be to a minimum depth of 1m, or where less than 1m, the shortfall will be made up by rock placement to the required minimum depth.

4.2.2 Hazard Mitigation

ABB and SHET will take all practicable steps to remove and/or remedy any hazards to fishing activity and/or navigational safety that are created during the construction and operation of the cable. Removal and remediation measures will include, as determined appropriate:-

- Removal of hazards from the seabed where practicable.
- Marking the location of hazards that cannot be removed or remediated with appropriate navigational marks at sea and/or on hydrographic charts.
- Notification to UKHO and Kingfisher Information Service.
- Informing fishermen of any specific areas where additional protection using rock placement was used (by direct communication using e-mail, internet and other

media to inform representative bodies along the route, and also to inform fishermen who have registered their interest in the project with the FLM).

4.2.3 Post-installation survey

There will be a post-installation survey of the cable route to determine that it is free of obstructions that may be hazardous to navigation and legitimate users of the sea.

4.2.4 Post Installation Fishing Restrictions

As indicated above, the installation process will result in the cable being buried to a depth of at least 1m, and where less than this, to be covered in rock armour. This protection is designed to ensure that the cable does not prove a hazard to navigation and to safeguard the cable integrity by the provision of shallow gradient side slopes using graded material. However, anchoring or towing of demersal trawls and dredges on or over the cable route should be avoided. The cable route and coordinates with be clearly communicated, as described above and it is expected that mobile gear vessels will use this information to avoid towing gears over the installed cable route.

By contrast, static gear fisheries, in particular inshore pot (creel) fisheries pose less of a risk of damage (either to gear or cable) and therefore there is an expectation that these will continue to be laid on the seabed on and around the cable route.

4.2.5 Loss of fishing gear

ABB and SHET shall respond to the loss of any fishing gear along the cable route in accordance with the SCUK guidance in force at the time of the loss.

4.2.6 Maintenance Mitigation

Any cable maintenance that involves the exposure of the cable must include reburial and notification of any new hazards or changes to the cable route in accordance with the relevant sections of the FLMAP. The duration of these activities will be kept to a minimum to mitigate the extent of any exclusions.

APPENDIX A: LICENCE CONDITIONS

This document has been prepared with reference to the draft licence conditions in Marine Scotland Licence 04368/13/0 and Marine Scotland Licence 04878/14/0. Once these licence conditions are finalized, a table of licence conditions will be included in this FLMAP detailing which section for the report addresses each specific licence condition.

APPENDIX B: LIST OF FLMAP CONSULTEES

Marine Scotland

Northern Lighthouse Board

Maritime and Coastguard Agency

The Scottish Fishermen's Federation

Moray Firth & North Coast Inshore Fisheries Group (including the following member associations):

- Moray Firth Inshore Fishermen's Association
- Gardenstown Line & Static Gear Association

North East Creel & Line Association

Scottish Creel Fishermen's Federation

National Federation of Fishermen's Organisations

Scottish Fishermen's Organisation

Other non-affiliated inshore operators

Spey Fisheries Board

APPENDIX C: CONSULTATION RESPONSES

To be added once received.