MOYLE RETURNS CABLE PROJECT

FISHERIES LIAISON AND MITIGATION ACTION PLAN

1 Introduction

This document sets out the fisheries liaison and mitigation action plan (FLMP) for the Moyle Returns Cable undersea cable ("the cable").

This plan sets out liaison procedures that will be followed during and after the installation of this cable. These procedures have been drawn up to ensure the cable is installed and operated as safely as possible, and to meet the licence consent conditions for the project.

During 2015, Moyle Interconnector Ltd has met with representatives of the fishing industry in Northern Ireland and Scotland to discuss this project. These meeting have informed the approach to fisheries liaison and mitigation set out in this document.

A FLMP has already been prepared and submitted to Marine Scotland for the nearby Western HVDC link project following consultation with the fishing industry during 2013-14. The FLMP that has been agreed for the Western HVDC Link has been used as the basis for this document, to ensure a consistent approach is applied to similar projects traversing Scottish and Northern Irish waters.

This FLMP is now submitted to Marine Scotland in accordance with the requirements for the consent issued for this cable in Scottish waters, and is submitted to DOE-NI as a commitment to ensure that best practice guidelines and licence consent requirements are met in Northern Irish waters.

Moyle Interconnector Ltd
June 2015

2 The Moyle Returns Cable Project

The Moyle Interconnector links the electricity grids of Northern Ireland and Scotland, running for a distance of 63 km between converter stations at Ballycronan More in Island Magee, County Antrim and Auchencrosh in Ayrshire. The link consists of two separate integrated return conductor (IRC) cables (a north and south cable), each with a high voltage (HV) and a low voltage (LV) return conductor integrated into a co-axial design. The system has been operational since 2002. However, since 2010 there have been four system faults (as a result of a failure in the low voltage polyethylene integrated return conductor (IRC) insulation. The interconnector is currently running at half capacity and Moyle Interconnector Limited has investigated options for the restoration of the interconnector to full capacity. The result is that replacement metallic return conductor cables will be laid in order to restore full capacity. The cable route is shown in Figure 1 of this document. This route has been selected to optimise cable burial.

Nexans have been appointed as Principal Contractor by Moyle Interconnector Ltd (or "the Client"), for the marine and underground cable production and installation of the Moyle Returns Cable project ("the Project").

2.1 Installation and burial

In brief, the proposed cable laying method will involve the surface laying of the cables along the route between August 2015 and January 2016.

The cables will be buried to a target depth specified in the Cable Burial Assessment Plan. However, where cable burial is not possible, cable protection measures will be undertaken along the cable routes. Details of all deposits associated with the cable installation will be confirmed in the Cable Burial Assessment Plan for this project.

2.2 Mitigating impacts

The purpose of this FLMP is to ensure that Nexans and Moyle Interconnector Ltd have a mitigation plan in place for the project that meets the relevant Marine Licence consent requirements set out by the Scottish Government and DOENI. These requirements are listed in Appendix A of this document.

This FLMP has been drawn up in accordance with industry and Government guidance for fisheries liaison (summarised in section 3.1 below).

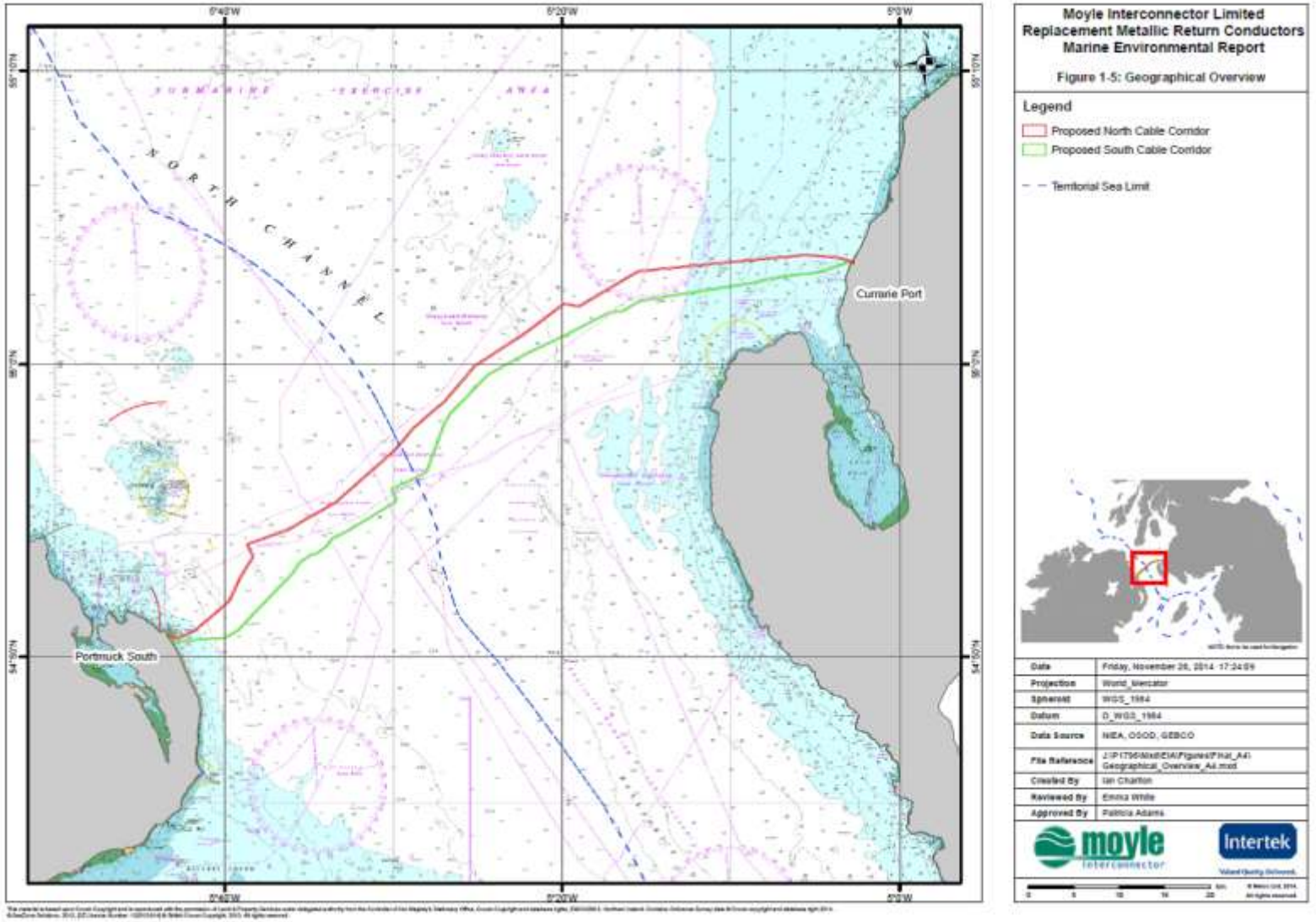

Figure 1 –Proposed Moyle Returns Cable Route

3 Mitigation & Liaison Strategy

3.1 Good Practice

Guidance for fisheries liaison has been published by the Subsea Cables UK (2012). This guidance recommends that a Fishery Liaison Manager (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 period of maintenance and if any problems with fasteners should arise during the operation of the cable.

This FLMP was been prepared in accordance with the "Fishing Liaison with Offshore Wind and Wet Renewables (FLOWW) Group's 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 in January 2014 (Crown Estate, 2014).

3.2 Fisheries and the Moyle Returns Cable

The Moyle Interconnector cable runs across the North Channel between Scotland and Northern Ireland. The coastal waters at each end of the cable route support thriving pot/creel fisheries fished by inshore vessels. Further from the shore, the principle fishing activities are trawling for *Nephrops* in the Clyde, semi-pelagic trawling for finfish in the North Channel, and scalloping in the waters closer to the Northern Irish coast.

From the outset the client (Moyle Interconnector Ltd) and their contractor, Nexans have considered that the Company Fishery Liaison Officer (CFLO) for this project should be an independent party, capable of coordinating local operators (Fishing Industry Representatives, FIRs) who will deliver the on-site services necessary for the smooth operation of this project.

AWJ Marine have been appointed as CFLO for this project. This company has 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. The company is well placed to coordinate the liaison work and to provide objective expert advice to the developer and their contractor. A schematic illustration of the approach to fisheries liaison that will be used in this project is shown in Figure 2.

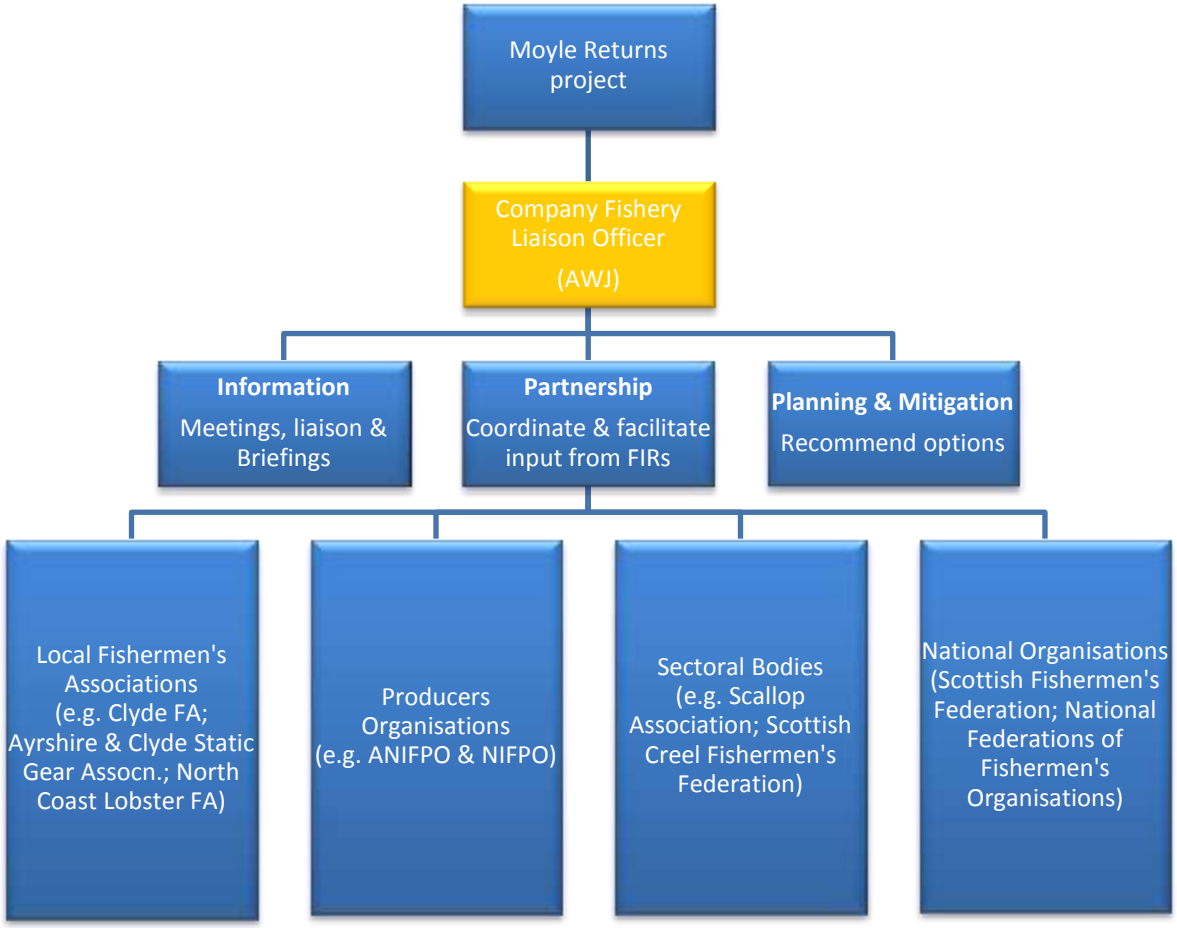

Figure 2: Summary of proposed fishery liaison arrangements for the Moyle Returns Cable project, with AWJ Marine acting as Company Fishery Liaison Officer, providing strategic guidance to deliver effective and efficient fishery liaison services in the three key areas of work and facilitating input from Fishing Industry Representatives (FIRs).

The purpose of this FLMP and the fishery liaison arrangements illustrated above is to ensure that all of the licence consent conditions raised by the DOE Northern Ireland and the Scottish Government are met.

In anticipation of these requirements, Moyle Interconnector Ltd have already held meetings with the key fishing organisations along the cable route in early 2015 to discuss their concerns and potential mitigation options.

The government consent requirements, feedback from the fishing industry, and the industry and Government guidance summarised above set the framework for the Moyle Returns Cable Fisheries Liaison & Mitigation Plan, detailed in the remainder of this document.

4 Mitigation & Action Plan

4.1 Notice of construction activities

Nexans and Moyle Interconnector Ltd 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:-

a) Direct e-mail communication to fishermen, their representative organisations, and agents.
b) Direct e-mail communication to harbourmasters and navigation authorities (including the UK Hydrographic Office, Northern Lighthouse Board (NLB), and the Commissioner of Irish Lights(CIL)).
c) Postal communication to fishermen and organisations on request.
d) Notices placed in the Kingfisher Information Service Offshore Renewables & Cable Awareness (KIS-ORCA) bulletins
e) Notices placed on websites maintained by the developer and their contractors.
f) 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.

4.2 Hazards – notice to mariners

Nexans and Moyle Interconnector Ltd will provide information about any potential hazards to fishermen and fishing activity that may arise during the construction and operation of the cable.

This information will be communicated by:-

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

The methods of communication listed in 4.1, 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.

4.3 Hazards – mitigation & remediation

Nexans and Moyle Interconnector Ltd will take all practicable steps to remove and / or remediate any hazards to fishing activity that are created during the construction and operation of the cable.

Removal and remediation measures will include, as appropriate:-

a) The use of cable protection & burial methods that minimise impacts on the seabed, wherever possible.
b) Removal of hazards from the seabed where this is practicable.

c) In-situ remediation measures (such as sweeping (with appropriate gear such as chain mats) or use of rock mattresses and / or rock armour) to render hazards over-trawlable.
d) Marking the location of hazards that cannot be removed or remediated with appropriate navigational marks at sea and/or on hydrographic charts.
e) Notification to UK Hydrographic Office and Kingfisher Information Service.
f) Informing fishermen of any specific areas where additional protection using rock placement and/or mattressing were 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 CFLO).

Within 4 weeks of becoming aware of any danger to navigation or risk to any legitimate user of the sea, a mitigation plan shall be produced and shall be submitted to the licensing authority for approval.

4.4 Safety of the cable route

When all installation activity has been completed in an area, Nexans and Moyle Interconnector Ltd will carry out sufficient survey activity to identify the location of potential hazards to fishing activity.

The location of potential hazards along the route shall be communicated to the fishing industry using the methods listed in item 4.1 as appropriate.

4.5 Installed Cable route

The actual route of the installed cable shall be communicated to the Consenting Authorities in accordance with licence conditions (i.e. within 3 months of the installation of each section of the cable). The fishing industry shall be informed of the installed route at the earliest opportunity and in accordance with the licence conditions.

Information about the cable route shall be communicated using the methods listed in item 4.1 as appropriate, and with the addition of:-

a) Details of the cable route shall be provided to enable it to be shown on hydrographic charts of the area in accordance with the Marine Licence conditions set out by the Consenting Authorities along the cable route.
b) The as-laid coordinates of the cable will be issued to navigation authorities including the UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB), Commissioner of Irish Lights (CIL) and Kingfisher Information Service for inclusion on Admiralty and cable awareness (KIS-ORCA) charts.
c) The location of the able corridor and a 500m zone either side of it shall be communicated in like fashion as a hazardous area for anchoring.

4.6 Operation of the Cable

The schedule of any maintenance, survey or repair activities will be well publicised to fishermen in advance, and the duration of these activities will be kept to a minimum to reduce the duration of any exclusions.

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 this FLMP.

4.7 Guard vessels

Nexans and Moyle Interconnector Ltd will make use of guard vessels where it is agreed to be necessary, subject to the following criteria, along the cable route:-

a) 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:
   - Marine Safety Forum Guard Vessel Good Practice for UK Fishing Vessel (available here[1]).
   - The SFF/NFFO Guard Vessel Operational Procedures Manual (available here[2])

b) Vessels will be sourced from a local provider of guard vessels that meet the standards specified in (a) above. The favoured providers will be:
   - Scottish Waters: Scottish Fishermen's Federation Services Ltd.
   - Outside Scottish Waters: National Federation of Fishermen's Organisations Services Ltd. or a local provider.

c) Where local providers are unable to provide vessel(s) as required to meet the operational and safety requirements specified in (a) above, Nexans and Moyle Interconnector Ltd will seek to secure guard vessels from other providers, giving preference to those providers already operating in the vicinity of the cable route.

4.8 Agreement on the level of guard vessel / liaison coverage

Nexans and Moyle Interconnector Ltd shall liaise with the fishing industry and regulators to agree the level of guard vessel and liaison officer coverage that is appropriate for different sections of the cable.

In case of disagreements, the final decision on the level of coverage shall be taken by the cable operator and contractors.

5 Mitigation

Nexans and Moyle Interconnector Ltd will implement measures to mitigate the potential impact of the construction and operation of the Hunterston-Kintyre cable in line with national guidance for cable operators as follows:-

5.1 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.

5.2 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 fishing vessels.

The results of the post installation survey, including an assessment of any and all risks posed by the final sub-sea cable route shall be submitted to the licensing authority within one month of installation (subject to operational constraints).

Post installation survey frequency & methodologies will be agreed with the licensing authorities. It is anticipated that surveys will be conducted 6 and 18 months after installation.

[1] http://services.sff.co.uk/sites/default/files/Guard%20Vessel%20Good%20Practice_Revision%201_Dec%202010.pdf
[2] http://services.sff.co.uk/sites/default/files/GV%20Manual%20Rev04%20Jan2011%20-%20FULL%20DOCUMENT.pdf

5.3 Loss of fishing gear

Nexans and Moyle Interconnector Ltd shall respond to the loss of any fishing gear along the cable route in accordance with the UK Cable Protection Committee guidance in force at the time of the loss.

JIM ANDREWS
Company Fishery Liaison Officer, Moyle Returns Cable Project
June 2015

Appendix A: Summary of Consent Conditions

The consent conditions relevant to fisheries mitigation that were raised by the Scottish Government and DOENI are listed below.

Administration	Condition		FLMP response(s)
	Reference	Summary	
Northern Ireland DOENI Licence Number XXXX	7	The licensee shall ensure that details of the works are promulgated to maritime users through Notices to Mariners and / or radio navigation warnings and publication in appropriate bulletins. This should take place prior to the commencement of cable laying operations as stated in the Notice to Mariners guidance notes, which is usually 10 days. Details of cable laying operations should then be issued as required to ensure that maritime users are kept up to date of vessel routes, timing and locations of each cable laying operation. DOENI must be copied in to all notifications.	4.1
	8	The licensee(s) shall, following installation, notify the Maritime and Coastguard Agency (MCA), Commissioner of Irish Lights and the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS---ORCA) of the 'as laid' position of the cable route as a potentially hazardous area for legitimate users of the sea. DOENI **must be copied into all notifications.**	4.5
	15	In the event of the licensee(s) becoming aware of information indicating that any part of the licensed works has become a danger to navigation or an interference with legitimate uses of the sea, the licensee shall immediately inform the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Commissioner of Irish Lights (CIL) and the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS---ORCA) to communicate the hazard to the maritime community.	4.2
	16	The licensee(s) shall provide a **Cable Burial Assessment Plan** to the licensing authority for their written approval, at least **28 days** prior to the commencement of cable laying or by prior agreement with the licensing authority. In granting approval, the licensing authority may consult any such other advisors, stakeholders or organizations as may be required.	Addressed in separate document.
	17	The cable burial assessment plan must	

Administration	Condition		FLMP response(s)
	Reference	**Summary**	
		include:-	
	e	A method statement including: • Risk---based post lay survey programmes, to ensure safety of navigation and other legitimate uses of the sea, and with particular relevance to fishing activity; • Measures to ensure that snagging of fishing gear does not occur in areas of cable protection. The licensing authority may request additional surveys and/or trials to demonstrate the adequacy of mitigation against snagging; • Survey methodologies to address the post lay cable inspection requirement of any cable sections along the route to include buried and unburied sections and also crossings; • The frequency, timing, scope and details of the reporting timescales and reporting format of post lay cable surveys, to be agreed with the licensing authority. The requirement for further surveys will be agreed following discussions between the licensing authority and any such advisors the licensing authority may decide, at their discretion.	5.2 4.3 5.2 5.2
	18	The licensee(s) shall ensure that any jetting trenchers and ploughs are operated in a manner to minimize impacts on the seabed, wherever possible.	4.3
	19	The licensee(s) shall submit to the licensing authority, within **28 days** of completion of licensed works (or upon expiry of the licence), an assessment of all risks posed by the final sub---sea cable route. This assessment should include: • Final burial depths • Un---trenched areas where mechanical and any other protection measures have been used • Any potential impacts of compass variation An assessment of any and all risks posed by the cable to the safety of navigation and other legitimate uses of the sea	5.2
	20	Prior to the commencement of cable installation, a Fisheries Liaison Officer (FLO), shall be appointed by the licensee(s) for the period during cable laying operations. The FLO shall establish and maintain effective communications between the licensee(s), any	3.2

Administration	Condition		FLMP response(s)
	Reference	Summary	
		contractors or sub---contractors and Fishermen's representatives and ensure compliance with best practice guidelines.	
	21	Guard vessels shall be used during installation activities to communicate with third party vessels within the vicinity of cable laying activities	4.7
	22	The licensee(s) shall ensure that the mitigation measures set out in the **Moyle Interconnector Ltd Replacement Metallic Return Conductors Section 12: Schedule of Mitigation (attached as Appendix One to this licence)** are implemented and adhered to during the cable installation works associated with this licence. The licensee(s) shall contact the licensing authority if it proposes any deviation from the mitigation measures set out in this Schedule.	
	These include:	IM13 Guard vessels will be used during installation activities to communicate with third party vessels in the vicinity of the cable.	4.7
		IM14 Effective channels of communication will be established and maintained between the appointed Contractor and commercial fishing interests. This will include the appointment of a Fisheris Liaison Officer (FLO).	4.1
		IM15 Seabed obstructions created by installation of the MRC cables, including berms, trenches and anchor mounds will be removed or made safe for towed fishing gear.	4.3
Scotland Marine Scotland Licence	3	The licensee shall ensure that details of the works are promulgated to a defined list of maritime users, as agreed with the licensing authority, including fishing representation through notice(s) to mariners and/or radio navigational warnings and publication in appropriate bulletins, at least seven days prior to the commencement of cable laying operations, stating the nature and timescale of any works carried out in the marine environment relating to the cable installation operations. The licensee shall ensure that HM Coastguard, Belfast MRCC, is made aware of the works.	4.1
	5	The licensee shall submit to the licensing authority for their written approval a cable plan (CaP) **at least two months prior** to the commencement of cable laying	Separate document.

Administration	Condition		FLMP response(s)
	Reference	Summary	
		operations. In granting such approval, the licensing authority may consult any such other advisors, organisations or stakeholders as may be required at their discretion. The CaP shall be in accordance with the application and supporting information. No works shall commence prior to the granting of such approval.	
	6	The CaP shall include the following: a) Details of the location and cable laying techniques for the cable; b) All results of survey work (including geophysical, geotechnical and benthic surveys) which will help inform cable routing; c) A burial risk assessment to ascertain if burial depths can be achieved. In locations where this is not possible then suitable protection measures shall be provided in line with best industry practices and guidelines and with reference to Crown Estate FLOWW guidelines where they appropriately apply; d) Methods, including risk-based post lay survey programmes, to be taken to ensure safety of navigation and other legitimate users of the sea, and with particular relevance to fishing activity, in line with industry best practice. Such methods shall include provision for post cable lay/trenching sweeps using appropriately modified and tested fishing gear including scallop dredges and chain mats where advised by the licensing authority in consultation with the Scottish Fishermen's Federation (SFF) and Fishery Liaison Officer (FLO). e) Survey methodologies to address the post lay cable inspection requirement of any cable sections along the entire cable route to include buried and unburied sections of the routes including crossings. Such methodologies shall detail the frequency (yet to be agreed with the licensing authority but it is recommended that these should be after six months and eighteen months following completion or part completion of the licensed cable laying works), timing, scope and details of the reporting timescales and format The	Separate document. Separate document. Separate document. 5.2, 4.3 5.2

Administration	Condition		FLMP response(s)
	Reference	Summary	
		requirement for further surveys beyond eighteen months will be agreed following discussions between the licensing authority, MIL and any such advisors the licensing authority may decide at their discretion.	
	7	The licensee shall ensure that details of the cable laying works are promulgated prior to commencement in the Kingfisher Fortnightly Bulletin to inform the Sea Fish Industry of the vessel routes, timings and locations of each cable laying operation along the licensed routes.	4.1
	8	Prior to the commencement of cable laying, a Fisheries Liaison Officer (FLO), approved by the licensing authority, shall be appointed by the licensee for the period during cable laying operations. The licensee shall notify the licensing authority of the identity and credentials of the FLO before commencement of cable laying by including such details in the EMP. The FLO shall establish and maintain effective communications between the licensee, any contractors or sub-contractors, fishermen's representatives (including locally appointed fisheries representatives who should where operationally practicable be on-board vessels) and other users of the sea during the cable laying works, and ensure compliance with best practice guidelines whilst doing so. The responsibilities of the FLO shall include, but are not limited to:	3.2
		a) Establishing and maintaining effective communications between the licensee, any contractors or sub-contractors, local fishermen and their representatives and relevant stakeholders	3.2, 4.1
		b) Communicating the overall project and any amendments to the plans and protocols and site environmental procedures;	4.1
		c) Provision of information relating to the safe operation of fishing activity along the cable envelope including having in place local Fisheries Liaison and Mitigation Action Plans; and	This document.
		d) Ensuring that information is made available and circulated in a timely manner to minimise interference with fishing operations and other users of the	4.1

Administration	Condition		FLMP response(s)
	Reference	Summary	
		sea. e) Familiarisation with the relevant Subsea Cables UK guidelines and a knowledge of the Crown Estate FLOWW guidelines where they appropriately apply	3.1
	15	The licensee shall notify Source Data Receipt, The Hydrographic Office, Admiralty Way, Taunton, Somerset, TA1 2DN (e-mail: sdr@ukho.gov.uk; tel.: 01823 337900) of progress of the works supplying a copy of the licence, and wherever possible, 'as laid plans', in order that all necessary amendments to nautical publications are made.	4.1
	29	The licensee shall ensure that any local navigation issues arising as a result of the works are addressed by the relevant maritime authorities and local Notices to Mariners issued as necessary.	4.3
	35	In the event of the licensee becoming aware of information indicating that any part of the licensed works has become a danger to navigation, the licensee shall immediately inform the Licensing Authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB), the Kingfisher Information Service Offshore Renewables and Cable Awareness (KIS-ORCA) and the UK International Cable Protection Committees to communicate the hazard to the maritime community. The licensee shall be liable for all costs.	4.3
	36	The licensee shall, within four weeks of becoming aware of any danger to navigation or risk to any legitimate user of the sea arising from any part of the licensed works or of notice being given by the licensing authority at any time it is considered necessary or advisable for the safety of navigation or protection of legitimate users of the sea, submit a mitigation plan to the licensing authority for approval. The mitigation plan must review the possibility for removal of, or alteration to, the deposits below the level of Mean High Water Springs. The licensee shall be liable for all costs.	4.3
	39	The licensee shall notify Source Data Receipt, The Hydrographic Office, Admiralty Way, Taunton, Somerset, TA1 2DN (e-mail: sdr@ukho.gov.uk; tel.: 01823 337900) on completion of the works supplying a copy of the licence, and wherever possible, 'as laid plans', in order that all necessary	4.5

Administration	Condition		FLMP response(s)
	Reference	Summary	
		amendments to nautical publications are made.	
	40	The licensee shall, following installation, notify the licensing authority, Maritime and Coastguard Agency (MCA), UK Hydrographic Office (UKHO), Northern Lighthouse Board (NLB), the Kingfisher Information Service Offshore Renewables and Cable Awareness (KISORCA) and the UK International Cable Protection Committees of the cable corridor and a 500m zone either side of it as a hazardous area for anchoring, to help communicate the 'as laid' position of facilities to the maritime community. The licensee shall submit confirmation of all notification to the licensing authority.	4.5
	42	The licensee shall undertake and submit to the licensing authority within one month of cable installation subject to operational constraints, to their satisfaction, an assessment of any and all risks posed by the final sub-sea cable route, burial depths and un-trenched areas where mechanical and any other protection measures were used within the cable route, to ensure that the safety of navigation and other legitimate users of the sea is not compromised. The assessment will be used to inform where appropriate the general requirements of condition 6 and in particular 6 e) above.	5.2