

T: +44 (0)300 244 5046
E: ms.marinelicensing@gov.scot

Redacted

NorthConnect KS
Serviceboks 603
Lundside
N-4606 Kristiansand
Norway

14 February 2019

**MARINE (SCOTLAND) ACT 2010, PART 4 MARINE LICENSING
MARINE AND COASTAL ACCESS ACT 2009, PART 4 MARINE LICENSING**

**THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
2017 REGULATIONS (AS AMENDED)
THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS 2007 (AS AMENDED)**

**DECISION NOTICE – MARINE LICENCES FOR THE CONSTRUCTION OF A HIGH
VOLTAGE DIRECT CURRENT INTERCONNECTOR FROM MEAN HIGH WATER
SPRINGS, PETERHEAD OUT TO 12 NAUTICAL MILES AND ROCK PROTECTION
FROM MEAN HIGH WATER SPRINGS TO THE UK-NORWEGIAN MEDIAN LINE**

1 Application and description of the works

- 1.1 On 24 August 2018 NorthConnect (“the Applicant”) having its registered office at NorthConnect KS, Serviceboks 603, Lundside, N-4606 Kristiansand, Norway, submitted to the Scottish Ministers an application under Part 4 of the Marine (Scotland) Act 2010 (“the 2010 Act”) and under Part 4 of the Marine and Coastal Access Act 2009 (“the 2009 Act”) for the construction of a High Voltage Direct Current (“HVDC”) interconnector from Mean High Water Springs (“MHWS”), Peterhead out to 12 nautical miles (“nm”) and for rock protection from MHWS, Peterhead out to the UK-Norwegian median line (hereinafter collectively referred to as “the Works”). These Works are part of a project to develop and operate an electrical interconnector between

Peterhead, Scotland and Simadalen in Norway, to provide an electricity transmission link between the two nations to exchange power. The application was accompanied by an Environmental Impact Assessment Report (“EIA Report”) in accordance with The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (“the 2017 MW Regulations”) and The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (“the 2007 MW Regulations”).

- 1.2 The EIA Report received was also submitted to Aberdeenshire Council in relation to the associated onshore, terrestrial works for which planning permission is required. This Decision Notice considers only the information relative to the marine environment.
- 1.3 The Works involve the laying of two high voltage direct current cables and one fibre optic cable. Horizontal directional drilling (“HDD”) will be used at the landfall location at Peterhead. Three boreholes will be drilled for the cables to be pulled through. The marine exit point will be approximately 190m offshore in approximately 26 metres of water depth. The marine cabling from the HDD marine exit point to the UK-Norwegian median line is approximately 230km. If the fibre optic cable is in a separate HDD it will be routed towards one of the main HVDC cables and bundled together with it for the remainder of the route. It is assumed that the two HVDC cables will be installed in two separate trenches although there is a small potential for them to be bundled together.
- 1.4 The majority of the cables will be installed in the trenches which will naturally backfill. In some areas, however seabed conditions will mean that backfill rock placement is required to infill the trench and cover the cables. In addition, it is predicted that from MHWS out to 12nm, approximately 5-10% of the cables will be laid over seabed which cannot be trenched and thus rock placement above existing seabed level will be required. Between 12nm and the UK-Norwegian median line, approximately 1% of the route will require rock placement above seabed level.
- 1.5 There are 18 existing cables and pipelines which the Works will cross within the Scottish marine area (as defined in the 2010 Act) and Scottish offshore region (as defined in the 2009 Act). At each crossing rock placement will be required firstly over the existing cable/pipeline and then over the new cables to provide protection.
- 1.6 The cable corridor will be 60 metres wide within the Scottish marine area and of variable width, minimum 20 metres, in the Scottish offshore region. The area in which the cables will be installed is shown in Annex One (“cable corridor”).

- 1.7 This decision notice contains the Scottish Ministers' decision to grant regulatory approval for the Works as described above, in accordance with the 2017 MW Regulations and the 2007 MW Regulations.

2 Summary of environmental information

- 2.1 The environmental information provided by the Applicant was:-

- An EIA Report that provided an assessment of the impact of the Works on a range of receptors;
- Habitats Regulations Appraisal: Pre-Screening Report;
- NorthConnect HVDC Infrastructure - UK Fisheries Liaison and Mitigation Action Plan ("FLMAP") (Revision 0 – Issue date 30 July 2018)
- HVDC Cable Infrastructure – UK Construction Method Statement (Revision 1 – Issue date 24 August 2018) ("CMS");
- HVDC Cable Infrastructure - UK Marine Communications Strategy (Revision 0 – Issue Date 24 July 2018);
- Cable Burial Risk Assessment (Final Issue 04 – dated 18 May 2018); and
- Cable Protection Analysis Report (Final Issue 05 – dated 01 June 2018).

- 2.2 A summary of the marine environmental information provided in the EIA Report is given below.

Seabed Quality

- 2.3 Disturbance and loss of seabed features associated with the installation of the HVDC cables will affect approximately 2.3km² of surficial and shallow geology within the cable corridor. A further 0.4km² of seabed will be disturbed during removal of out of service cables, crossing of surface laid cables and pipelines and from cable protection that will involve rock placement. No features of significant geomorphological interest were identified in the cable corridor and the area of seabed affected is very low in the context of the wider North Sea. No significant impact to seabed features is therefore anticipated to occur as a result of the cable installation. A survey of the cable corridor did not identify any unexploded ordnance ("UXO") but the Applicant has recognised that risk of contact during cable installation remains. A further survey will be conducted prior to the commencement of cable installation works and where UXO is identified, appropriate safety measures will be employed. If this includes clearance, removal or disposal of UXO, the Applicant will be required to apply for a further marine licence to carry out these activities.

Geology and Hydrogeology

- 2.4 The cables will run under Bullers of Buchan Coast Site of Special Scientific Interest ("SSSI"), designated for its coastal geomorphology, through holes made by HDD and therefore the impacts on the SSSI will be negligible.

Air Quality

- 2.5 The air quality assessment carried out by the Applicant considered carbon emissions from the Works across all project operations.

- 2.6 In terms of carbon emissions, it is estimated that 100,000 tonnes of carbon dioxide equivalent will be produced as a result of construction works. However, the lifecycle carbon dioxide equivalent for the Works during its 40 year operational life is to be carbon saving. The Works will enable more renewable energy to come online and replace carbon dioxide emitting electricity sources. The worst case model demonstrated an overall carbon dioxide equivalent saving of 4.66 million tonnes and the best case model resulted in a saving of 52.82 million tonnes. This was acknowledged as a significant beneficial effect.

Water Quality (Marine Environment)

- 2.7 The EIA Report identified potential impacts on water quality in the marine environment from the installation of the HVDC cables including; discharges from HDD into the marine environment, increased water column sediment loading, remobilisation of sediment bound compounds and the potential introduction of invasive non-native species ("INNS").

- 2.8 The Applicant estimates that total of 3,000m³ of drilling fluid containing approximately 18m³ of drilling solids will be released into the marine environment during the drilling of the 3 HDD holes at the exit locations. These holes will however be drilled individually and therefore only 1,000m³ of fluid and 6m³ of solids will be released at any one time. Whilst the HDD works will result in certain localised increases in water column sediment loading, the drilling fluids are non-toxic and will be dispersed rapidly, reducing the duration of the impact. As such, the EIA Report identified these effects as being non-significant.

- 2.9 Increased sediment loading of the water column is also expected from the cable installation works, however these effects are likely to be localised and temporary. The EIA Report concluded that the effects of increased sediment loading were of minor significance.

- 2.10 Concentration of contaminants in seabed sediments sampled were below levels likely to result in environmental harm if remobilised during the cable installation works. In addition, the duration and extent the sediment plumes caused by the installation works would be limited and likely confined to the

cable corridor. The effects of remobilisation of sediment bound compounds on water quality were therefore assessed as being short term and localised and of being, minor significance.

- 2.11 The Applicant concluded that the likelihood of introduction of INNS is extremely unlikely as the relevant protective legislation and best practice, detailed in the schedule of mitigation in the EIA Report, will be adhered to.

Archaeology and Cultural Heritage

- 2.12 Six historic environment assets have been identified within the cable corridor. The Works have been designed to safeguard these historic environment assets from construction-related impacts. Archaeological mitigation has been designed to ensure that any unexpected discovered are appropriately responded to. There are no nationally significant historic environment assets that will be subject to significant visual or setting impacts from the Works.

Benthic Ecology

- 2.13 Impacts during the installation, operation and decommissioning phases of the Works were assessed in the EIA Report. Impacts during the decommissioning phase were deemed to be equivalent to, or less than, impacts arising during the installation phase of the Works.
- 2.14 Seabed surveys were conducted and the seabed habitats were found to be predominately soft sediments with limited areas of hard and rocky substrates. Impacts during the operational phase from the effects of changes to current and flows, sediment heating, magnetic fields and introduction of INNS and physical disturbance during inspections and repair were considered in the EIA Report.
- 2.15 The EIA Report concluded that the loss of habitats during the installation phase will be limited in extent and that the impacted habitats are likely to recover. Mitigation measures will be implemented during the installation phase to reduce effects upon seabed habitats and species. A number of sensitive habitats have been excluded from the cable corridor and burial and armouring will be undertaken to reduce magnetic fields. Further, control measures will be implemented to reduce the risk of INNS and water quality incidents.
- 2.16 The EIA Report concluded that there would be no significant effects upon seabed habitats and species from the Works, either in isolation or in combination with other planned projects, during all phases of the Works.

Fish and Shellfish

- 2.17 Impacts during the installation, operation and decommissioning phases of the Works were assessed in the EIA Report. During installation, effects from loss of habitats, creation of habitats, changes to water quality, underwater noise

and vibration and introduction of INNS have been considered. Impacts during the decommissioning phase are likely to be similar or less than impacts arising during the installation phase of the Works. During operation, effects from changes to current and flows, sediment heating, magnetic fields and introduction of INNS and physical disturbance during inspections and repair were considered.

- 2.18 Mitigation measures have been put in place to reduce effects upon fish and shellfish species. These include timing restrictions for drilling and cable installation activities to avoid herring and sandeel spawning periods, burial and armouring of the cable to reduce magnetic fields, and implementing control measures to reduce the introduction of INNS and water quality incidents.
- 2.19 The EIA Report predicted no significant effects upon fish and shellfish species from the Works alone or in combination with other planned projects. The effects during the installation phase will be temporary in nature. Many of the fish and shellfish species assessed are mobile and wide-ranging in nature. The operational phase effects will be low and many of the fish and shellfish species assessed are mobile and wide ranging in nature.

Marine Mammals

- 2.20 The Works are located 105km to the south of the Moray Firth SAC designated for bottlenose dolphins. In addition, the cable corridor crosses the Southern Trench draft Marine Protected Area ("draft MPA") which has been identified in part for minke whale. This draft MPA however has not yet been formally approved for public consultation and as such is not yet afforded policy protection. Four species of cetaceans were found to commonly occur, or are resident within the cable corridor. A further five species were considered regular but less common. In addition, both grey and harbour seals are likely to be present in the vicinity of the Works.
- 2.21 During the installation phase of the Works there is the potential for these marine mammal species to be impacted through disturbance due to foraging impairment from increased water column sediment loading during cable trenching operations disturbance due to noise from vessels and cable installation works, injury through interactions with cable installation equipment and indirect effects on prey species. The short term and localised nature of these impacts combined with the mobile nature of marine mammals means that these effects were considered minor and non-significant.
- 2.22 The only effect assessed as having the potential to have moderate significant impacts was the disturbance due to underwater noise emissions from the Sub-Bottom Profiler ("SBP"), which will be used during both pre and post installation survey operations. However, even in the absence of mitigation it

does not have the potential to adversely affect the conservation objectives of the Moray Firth SAC.

- 2.23 To mitigate the potential impacts resulting from the underwater SBP noise, Marine Mammal Observers (“MMO”) and Passive Acoustic Monitoring (“PAM”) will be employed to ensure marine mammals are not in the zone where disturbance is likely to occur prior to the operations commencing. With this mitigation the residual impacts on marine mammals associated with construction are considered minor and non-significant.
- 2.24 Impacts during the operational phase of the Works from the effects of electromagnetic fields (“EMF”), water quality and underwater noise were also considered in the EIA Report. The effects of EMF were assessed as non-significant. Water quality and underwater noise effects were similar to those identified during the installation phase of the Works. As above, the use of SBP has the potential to result in significant impacts on marine mammals, however with the implementation of MMO and PAM the impact is reduced to non-significant.

Ornithology

- 2.25 The Works are located in the Buchan Ness to Collieston Coast Special Protection Area (“SPA”) and Bullers of Buchan Coast SSSI, both of which have designated seabird species as part of their qualifying features and the Scottish Wildlife Trust Longhaven Cliffs Reserve. Bird surveys were carried out for marine dependent species in order to assess the potential impacts on the ornithological receptors.
- 2.26 Within 200m of the main cable installation techniques, very few nests are likely to be disturbed due to noise or light pollution during the installation activities. The timing of HDD activity has been specifically programmed to be outwith the bird breeding season, thus minimising any potential effects of this activity. However, the cable pull and cable laying activities will take place during the breeding period. Two cable pulls are required but will each only take up to seven days and will be spaced apart by 4 to 12 months. It is therefore not predicted that this activity will have a long term effect on the seabird species within the vicinity of the activity. Cable laying vessels will be travelling at a slow speed and therefore the amount of habitat disturbance for seabirds foraging across this area will be minimal in the context of the whole North Sea.
- 2.27 With appropriate mitigation in place, no significant effects were identified for any of the marine dependent species. No cumulative effects with other plan or projects were identified.

Navigation and Shipping

- 2.28 An assessment of navigation and shipping was undertaken. The area is mainly used by oil and gas industry vessels and fishing vessels, with lower proportions of cargo ships, tankers and other types. The busiest month was August and the quietest January. The busiest section was within UK territorial waters due to vessels heading to and from Peterhead Port as well as vessels transiting off the east coast. Fishing vessel activity was recorded all along the cable corridor including transiting and fishing. Recreational vessel activity mainly comprised vessels navigating along the east coast. Beyond 12nm there were occasional transits from yachts crossing the North Sea. A review of anchoring activity identified five occasions in 2017 when vessels anchored over the cable corridor. All were oil and gas industry vessels anchored to the south of Peterhead. The assessment concluded that all identified impacts are broadly acceptable or tolerable with mitigation, which will include cable protection (including burial to appropriate depth), chart depiction, notice to mariners and guard vessels present during installation when cable is exposed. Ongoing communications are planned and detailed in the HVDC Cable Infrastructure - UK Marine Communications Strategy submitted by the Applicant in support of their marine licence application.

Commercial Fisheries

- 2.29 Potential impacts on commercial fisheries were assessed including loss of access to fishing grounds and change of distribution of commercial species during the installation, operation and maintenance phases of the Works. The EIA Report also considered the risk of snagging as a result of rock placement or areas of exposed cable. The loss of access to fishing grounds during the installation phase was considered to have a non-significant impact on mobile gear operators. However, the impact on static gear was classed as significant due to the value of the fishing grounds within the cable corridor and the limited availability of alternative grounds. The Applicant will work closely with individual fishing operators to ensure they have a full understanding of the Works, its timescales and to ensure any impact is tolerable. During the operation and maintenance phase of the Works, loss of access to fishing grounds to both mobile and static operators will be non-significant.
- 2.30 The temporary change in distribution of commercial species during the installation phase of the Works will not have a long-term impact and is considered non-significant. Changes to distribution during the operation and maintenance phase will be negligible.
- 2.31 During the operational phase of the works the risk of snagging on areas of rock placement and exposed cable may have financial implications. Rock placement will be designed to be overtrawlable and areas of exposed cable will be notified to fishermen should these be identified during cable inspection

surveys and will be rectified promptly. Fishing will be temporarily excluded from these areas while maintenance is undertaken. The EIA Report concluded this impact to be non-significant.

Local Community and Economy

- 2.32 An assessment has been undertaken to consider local socio-economic impacts in respect of the installation and operation phases of the Works. Due to the nature of the Works there may be a need for specialist teams to be brought to the area including the NorthConnect Project Management Team. Local hotels, restaurants and entertainment venues are likely to benefit from the influx of people and additional revenue. The impact on both commercial and recreational activity was assessed including commercial fishing, recreational sailing and sub-aqua diving. A short-term, negligible effect on the local economy was identified in relation to commercial activity and also on the amenity of recreational users however this was not found to be significant.

Noise (Underwater)

- 2.33 The Applicant undertook a literature review to identify the underwater noise sources likely to be present during the installation and operation phases of the Works which included; installation vessels, subsea survey equipment, HDD equipment, cable burial tools and rock placement vessels. The cable corridor passes through open water with three main types of anthropogenic acoustic source; shipping, fishing grounds and oil and gas installations. It is expected that ambient underwater noise levels are likely to be relatively high in comparison to less industrially active areas.
- 2.34 The noise sensitive receptors likely to be present in the vicinity of the cable corridor include marine mammals and fish. The frequency of noise sources were compared against marine mammal and fish hearing thresholds. The magnitude of any impacts on sensitive receptors was identified. The predicted underwater noise emissions from the installation and operation phases of the Works do not pose any risk of injury to marine mammals or fish, however, they do have the potential to cause disturbance to both. Impact assessments for both marine mammals and fish were carried out and are discussed further in the respective marine mammal and fish sections.

Resource Usage and Waste

- 2.35 Waste arisings during construction and operations will be in relatively small volumes however a waste hierarchy will still be employed. Wastes will be sorted and segregated to allow them to be reused or recycled. A large proportion of the 24,154 tonnes of cabling is comprised of finite resources such as metals. At the point of decommissioning, the cables will be recovered, stripped and recycled. The use of materials will be minimised where possible

and will be safely stored and used to prevent environmental effects arising so no significant environmental effects are predicted.

3 Consultation

3.1 In accordance with the 2017 MW Regulations and the 2007 MW Regulations advertisement of the application and EIA Report was made in the local and national press and the Applicant's website. Notices were placed in the public domain and the opportunity given for those wishing to make representations to do so.

3.2 The dates of the consultation exercises are given below. The regulatory requirements regarding consultation and public engagement have been met and the responses received taken into consideration. Where matters have not been fully resolved, conditions have been included to ensure appropriate action is taken post consent.

Document	Date Received	Dates of Consultation	Publication
Environmental Impact Assessment Report & Appendices	24 August 2018	04 September 2018 – 18 October 2018	Applicant's Website (04 September 2018)
Marine licence application and supporting documentation			Edinburgh Gazette (04 September 2018) Buchan Observer (06 September 2018) A subsequent amendment was placed in the Edinburgh Gazette (18 September 2018) and in the Buchan Observer (25 September 2018) to confirm the end date of the consultation as 18 October 2018.

3.3 A summary of the responses is set out in sections 4, 5 and 6.

4 Summary of statutory consultee responses

4.1 The Maritime and Coastguard Agency ("MCA") responded on 24 October 2018 confirming no objection to the marine licences being granted, subject to all maritime safety legislation being followed, the risk mitigation measures in the Navigation Risk Assessment are fully adhered to and the inclusion of

standard conditions on the marine licences. In addition, the MCA requested that a post lay study should be undertaken to establish electromagnetic deviation, affecting ship compasses and other navigating systems along the HVDC route.

- 4.2 Scottish Environmental Protection Agency (“SEPA”) responded on 15 October 2018 referring to their standing advice which states that they have no site-specific advice or comments to make.
- 4.3 Scottish Natural Heritage (“SNH”) responded on 15 October 2018 objecting to the Works unless it is made subject to conditions so that the Works are done strictly in accordance with the mitigation detailed in their response.
- 4.4 SNH advised that the cable installation and associated works are likely to have a significant effect on the breeding seabird interests of the Buchan Ness to Collieston Coast SPA during the construction phase of the Works only, due to disturbance arising from noise impacts and vessel movements. SNH advised that it was unlikely that there would be any significant effects on the breeding seabird qualifying interests of the Buchan Ness to Collieston Coast SPA during the operational phase of the Works, or as a result of impacts on seabed habitat. SNH further advised that the impact of Works located outside the SPA boundary, during all phases of the Works, were unlikely to have significant effects. SNH further advised that if the Works are undertaken with the following mitigation, the Works will not adversely affect the integrity of the site:-
- vessels associated with cable pull should follow the Scottish Marine Wildlife Watching Code and the Guide to Best Practice of Watching Marine Wildlife to minimise disturbance to nesting and rafting birds;
 - vessels should avoid ‘section 3B’ (the rocks known as ‘the Meaths’) south of the headland where the cable makes landfall. Notable numbers of birds were counted in this area for several seabird features of the SPA;
 - mitigation measures should be outlined in a Vessel Management Plan; and
 - any lighting is directed at the working area only and should not illuminate cliffs.
- 4.5 In their further response dated 11 December 2018, SNH confirmed that ‘section 3B’ (The Meaths), are cliffs and above MHWS. SNH advised that the minimum distance that vessels should remain away from the Meaths to avoid an adverse effect on the integrity of the Buchan Ness to Collieston Coast SPA is 50m. SNH also advised that a greater distance from areas of dense seabird occupation, such as the Meaths, would be preferable, but not necessary to avoid an adverse effect on the integrity of the site.

- 4.6 SNH considered a number of factors relating to potential noise impacts and vessel disturbance from the proposal on the breeding seabirds qualifying interest of the Buchan Ness to Collieston Coast SPA and concluded that these impacts; are localised, short-term and temporary; reversible over time; will likely affect a very small proportion of birds within the SPA; and will likely affect productivity only.
- 4.7 SNH concluded, based on consideration of the factors detailed above, there would be no adverse effect on the integrity of the Buchan Ness to Collieston Coast SPA from the Works in isolation.
- 4.8 The advice provided by SNH on the Buchan Ness to Collieston Coast SPA also applies to the Bullers of Buchan SSSI. SNH advised that the cable installation, associated works and operation are unlikely to have a significant effect on the breeding seabird qualifying interests of the Ythan Estuary, Sands of Forvie and Meikle Loch SPA, Troup, Pennan and Lion's Heads SPA, Fowlsheugh SPA and Firth of Forth Islands SPA.
- 4.9 SNH advised that the proposal is capable of affecting the minke whale feature of the draft MPA but that these effects are insignificant and none of the other features of the draft MPA are capable of being affected by the Works.
- 4.10 SNH agree with the EIA Report that the Works are likely to require an EPS licence to disturb cetaceans for the use of SBP but further advised that the activity is unlikely to have a detrimental effect on the favourable conservation status of these species providing the mitigation detailed in the EIA Report is applied. SNH also advised that the SBP activities associated with the Works are likely to have a significant effect on the bottlenose dolphins of the Moray Firth SAC, however providing the Applicant adheres to the marine mammal mitigation measures outlined in the EIA Report there will be no adverse impact on site integrity. On this basis SNH advised an appropriate assessment will require to be carried out prior to the subsequent granting of any EPS licence for the SBP activities. If blasting of UXO is required, further assessment will be required and an EPS would likely be required for this activity, possibly for injury as well as disturbance.
- 4.11 In the view of SNH, the likelihood of basking sharks being present in the immediate area of the Works is very low and therefore a licence to disturb is unlikely to be required. However, should the Applicant want to obtain a licence, SNH are of the view that the Works will not have a negative impact on the favourable conservation status of basking sharks.

- 4.12 SNH noted that Atlantic salmon from the River Dee, River South Esk, River Tay, River Teith and River Tweed SACs are likely to cross the cable corridor during migration and that sea lamprey from the River Tay SAC, River Teith SAC and River Tweed SAC are also likely to cross the cable corridor during migration. SNH advised that the Works are unlikely to have a significant effect on the Atlantic salmon and sea lamprey qualifying interests either directly or indirectly. SNH further advised that the Works are unlikely to have a significant effect on the freshwater pearl mussel, for which Atlantic salmon are the larval host, qualifying interest of the River Dee and South Esk SACs.
- 4.13 In reaching this view SNH considered the research undertaken by Marine Scotland in 2015 on the effects of EMF on Atlantic salmon, which indicated that the minor effects observed would be unlikely to have major ecological consequences in terms of impinging migration or increasing mortality risk. SNH further considered that migrating Atlantic salmon and sea lamprey would be exposed to EMF generated by cables for relatively short distances and the cables will make landfall at least 35 km from the nearest SAC with Atlantic salmon or sea lamprey interest. Research has indicated that both post-smolts and adult Atlantic salmon near the coast are likely to be surface orientated and therefore limiting exposure to EMF. SNH noted that cable installation will lead to some sediment release, many species of diadromous fish appear capable of migrating through and surviving high suspended solid concentrations in estuarine. It is therefore likely that increased turbidity in this high energy environment would be within the tolerance limits of Atlantic salmon, sea lamprey and on other diadromous fish species of conservation interest. SNH further considered that it was unlikely that noise generated by the cable installation would have a significant effect on the qualifying interests of relevant riverine SACs or on other diadromous fish species of conservation interest.
- 4.14 SNH welcomed the Applicant's commitment to bury the cables to the greatest depth possible, particularly on the basis that the predicted EMF entering the water column is higher than the earth's magnetic field. Burial of the cables would increase the distance between the cables and the water column. SNH highlighted this would be particularly valuable mitigation in shallow waters below 20m.
- 4.15 SNH noted that the benthic survey carried out by the Applicant had identified areas of *Sabellaria spinulosa* reef (a biogenic reef listed in Annex 1 of the Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) in the vicinity of the cable corridor. SNH acknowledged that the cable corridor had been designed to avoid any areas which could qualify as Annex 1 reef by at least 50m so to avoid any significant impacts on the feature.

- 4.16 Northern Lighthouse Board responded on 10 September 2018, their recommendations with regards to navigation will be included as conditions of the marine licences.
- 4.17 Joint Nature Conservation Committee (“JNCC”) responded on 18 October 2018 advising that the proposed Works are not likely to cause a significant impact on the marine environment. JNCC noted that there are many protected habitats which are highly sensitive to cable laying operations. JNCC referred to the application which states that the results of the benthic survey operations were used to inform the design of the cable corridor and as a result Annex I habitats have been excluded from the boundary of the cable corridor by at least 50m. JNCC recommended that Marine Scotland satisfy themselves that a 50m exclusion zone is sufficient to ensure that these habitats are not significantly affected.
- 4.18 The cable corridor will be approximately 190m from the boundary of the Scanner Pockmark SAC. However, using the precautionary approach on boundary designation, the closest distance of the cable corridor to an example of the feature is approximately 685m and therefore JNCC does not foresee a likely significant effect on the qualifying feature of the Scanner Pockmark SAC. JNCC recommended that as much as practicably possible, the Applicant should avoid ocean quahog, mitigate their operations to avoid Annex I *Sabellaria spinulosa* habitats and that where possible, minimise their impact on sea-pens and burrowing megafauna.
- 4.19 JNCC noted that the long term effect of the introduction of substratum into naturally sandy or muddy seabed is not fully understood at present and should be carefully considered. Therefore, JNCC recommended that the Applicant should minimise the hard substrate material used as the receiving environment is mainly sedimentary and that where stabilisation material cannot be avoided, a more targeted placement method should be used.
- 4.20 JNCC also highlighted that its current guidelines regarding seismic surveys state a minimum mitigation zone of 500m applies to all geophysical surveys including SBP activities. In addition, they advised all pre-watches are required to be a minimum of 30 minutes in length. The Applicant will require to consider this further in respect of any potential EPS requirements in the Scottish offshore region.
- 4.21 The Applicant provided comments on the points raised by JNCC, who subsequently responded further on 19 November 2018, reaffirming its comments in particular with regard to the mitigation measures for the SBP activities.

- 4.22 Conditions have been attached to the marine licences requiring the Applicant to adhere to the MMPP, CMS and to maintain an exclusion zone around the pockmarks and *Sabellaria* reefs to ensure that the Works do not affect the Annex 1 habitats.
- 4.23 Historic Environment Scotland (“HES”) in their response dated 01 October 2018 confirmed that they had no objections to the Works on the basis that there will be no significant visual or setting impacts on any nationally significant historic environment assets.
- 4.24 Aberdeenshire Council were consulted on 04 September 2018 but did not provide comments on the marine licence application.

5 Summary of non-statutory consultee responses

- 5.1 Defence Infrastructure Organisation did not raise any objections in their response dated 04 October 2018.
- 5.2 Ythan District Salmon Fishery Board (“DSFB”) raised concerns in their response dated 15 October 2018. Ythan DSFB stated that the Works cut across the migratory passage routes of salmon smolts and returning adult salmon from the Ythan and other east coast rivers and the timing of the Works could seriously affect both runs of fish. Concerns were also expressed over the migratory routes of sea trout moving north to the River Ugie and that these fish could be damaged as a result of the Works. Ythan DSFB stated that not enough consideration has been given to either salmon or sea trout.
- 5.2.1 In response to the concerns raised, the Applicant referred the Ythan DSFB to chapter 15 of the EIA Report. The DSFB provided an updated response on 15 November 2018 advising the assessment by the Applicant for salmon and sea trout had been fair and reasonable and withdrew their objection.
- 5.3 Royal Yachting Association Scotland had no objections in their response dated 28 September 2018.
- 5.4 Scottish Fishermen’s Federation (“SFF”) submitted an objection to the application in its response dated 04 October 2018.
- 5.5 SFF stated that there are nephrops grounds, which run along the cable corridor north west of the Hywind Pilot Park Project (located in the Buchan Deep, Peterhead) almost to the UK median line. SFF stated that, in its opinion, these nephrops grounds had not been adequately considered within the EIA

Report. SFF stated that the impact of ploughing on the nephrops fishery has not been considered adequately in the FLMAP.

- 5.6 SFF stated that the proposed over dumping allowance of 40% (stated within the Cable Protection Analysis submitted in support of the application) is not acceptable. The SFF stated its preference for the use of burial tools, appropriate to the seabed conditions, to achieve maximum burial. SFF stated that further evidence was required to support the statement in the EIA Report that 90% of the cable corridor within UK waters would be buried, without rock protection. SFF stated that overtrawlability studies would be required and that the survey study results should be shared.
- 5.7 SFF stated that it was unable to determine how much of the cable corridor from landfall to 12nm would be subject to rock protection. SFF stated that further consideration was required with regard to the scallops fishery in the area.
- 5.8 SFF raised concerns regarding the CMS and consideration of the impacts of displacement from productive grounds as regards the nephrops fleet. SFF stated that, in its opinion, the Applicant should be required to compensate losses as a result of depleted fisheries, should this occur. SFF stated that consideration should be given to micro-siting to avoid obstacles and ensure burial.
- 5.9 SFF stated that its preference is for cables to be bundled where possible, rather than installed in multiple trenches along the cable corridor to reduce impacts. SFF stated that it objected to trenches being left open for long periods of time, due to the potential impacts on the nephrops fishery. The cable installation activities should be completed timeously and at an appropriate time of year, to minimise impacts, failing which, further mitigation measures should be implemented.
- 5.10 SFF stated that further consideration of the decommissioning phase of the Works is required and that total removal would be its preferred option.
- 5.11 A response from the Applicant was forwarded to SFF on 31 October 2018. The Applicant stated it considered that many of the comments raised by SFF had been addressed within the EIA Report and associated supporting documents. The Applicant reiterated its commitment to ongoing appropriate stakeholder engagement during the lifetime of the Works. The Applicant further reiterated its commitment to minimise the use of rock protection.
- 5.12 The SFF responded on 21 November 2018, confirming that its previous response remained valid.

- 5.13 Conditions have been attached to the marine licences requiring the Applicant to adhere to the FLMAP.
- 5.14 The Crown Estate Scotland did not raise any objections in their response of 17 September 2018.
- 5.15 The Royal Society for the Protection of Birds (“RSPB”) had no objections to the Works providing the mitigation measures in the EIA Report are adhered to and a Breeding Bird Protection Plan is submitted for approval prior to the commencement of the Works. . The marine licences will be conditioned in line with this advice.
- 5.16 Scottish Water did not raise any objections in their response of 17 September 2018.

6 Representations from other organisations and members of the public

- 6.1 No representations were received from other organisations or members of the public.

7 Advice from 3rd Parties

- 7.1 Marine Scotland Science (“MSS”) provided the following advice on benthic ecology and diadromous fish. MSS advised that a risk assessment is produced for INNS due the large and irreversible effect that could result from the transfer of the INNS across the North Sea.
- 7.2 MSS are content that the cable corridor will be microsituated away from the *Sabellaria* reef and also the pockmark features in or around the Scanner Pockmark SAC to prevent damage to Annex I features.
- 7.3 MSS had no further comments to make regarding the physical environment and coastal processes, marine fish ecology and commercial fisheries.
- 7.4 MSS confirmed that the socioeconomic impacts of the Works in Scotland and the UK are expected to be modest. The social impacts will be negligible as a low number of jobs will be created in Scotland and it is likely that the contractors will be foreign businesses.

8 The Scottish Ministers’ Considerations and Main Determinative Issues

- 8.1 The Scottish Ministers, having taken account of all relevant information, consider that the main determining issues are:

- The extent to which the Works accord with and are supported by Scottish Government policy and the terms of The 2015 Scottish National Marine Plan national marine plan as well as relevant local development plans
- The significant effects of the Works on the marine environment, which are in summary:
 - Benthic Ecology
 - Ornithology
 - Commercial Fisheries

Policy Context

- 8.2 The 2015 Scottish National Marine Plan (“NMP”) covering inshore waters is a requirement of the 2010 Act. The NMP lays out the Scottish Minister’s policies for the sustainable development of Scotland’s seas and provides General Planning Principles (“GEN”), and sector specific objectives and policies, which were considered as part of the EIA process. Chapter 14 of the NMP, relates specifically to submarine cables. The Scottish Ministers are satisfied that the Works are to be carried out in line with the policies in chapter 14 and that the Works will contribute to the achievement of the objectives set out with regards to submarine cables.
- 8.3 In addition to the marine licences, the section of the cables above MHWS and the interconnector station also requires planning permission from Aberdeenshire Council which will consider the National Planning Framework 3 and any strategic and local development plans.
- 8.4 The works also fall under the Trans-European Energy Networks (“TEN-E”) Regulation. This sets out guidelines for the permitting process for major energy infrastructure projects (termed Projects of Common Interest (“PCI”)) that contribute to European energy networks. NorthConnect has been designated a PCI by the European Union.
- 8.5 The Scottish Ministers are satisfied that the Works accord with and are supported by Scottish Government policy and the terms of the NMP.

Environmental Matters

- 8.6 The Scottish Ministers are satisfied that an environmental impact assessment has been carried out. Environmental information including the EIA Report has been produced and the applicable procedures regarding publicity and consultation laid down in regulations have been followed. The environmental impacts of the Works have been assessed and the Scottish Ministers have taken the environmental information into account when reaching their decision.

- 8.7 The Scottish Ministers have considered fully and carefully the application, EIA Report, supporting documentation and all relevant responses from consultees.

Possible Effects on European Protected Sites and Ornithological Impacts

- 8.8 The Conservation of Habitats and Species Regulations 2017 and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (“the 1994 Habitats Regulations”) require the Scottish Ministers to consider whether the works would be likely to have a significant effect on a European site or European offshore marine site (either alone or in combination with other plans or projects), as defined in the 1994 Habitats Regulations.

- 8.9 Owing to the view of SNH that the Works are likely to have a significant effect on the qualifying interests of the Buchan Ness to Collieston Coast SPA. MS-LOT, on behalf of the Scottish Ministers, as the “competent authority”, were required to carry out an Appropriate Assessment (“AA”). Having had regard to the representations made by SNH and RSPB it can be ascertained that the Works will not adversely affect the integrity of the SPA. Having determined that the Works will not adversely affect the integrity of the site and having regard to the reasons for which it was designated and the associated conservation objectives, MS-LOT concludes that the Works will not, on their own or in combination with other projects, adversely affect the integrity of the Buchan Ness to Collieston Coast SPA.

- 8.10 A full explanation of the issues and justification for decisions regarding site integrity is provided in the AA (available [here](#)). SNH agreed with all conclusions reached in the AA.

- 8.11 The Scottish Ministers are content that significant ornithological impacts will be appropriately mitigated providing the Applicant adheres to the conditions set out in the AA and marine licences together with the mitigation measures detailed in the EIA Report.

Benthic Ecology

- 8.12 The Scottish Ministers are satisfied that the cable corridor can be sufficiently micrositied to avoid Annex 1 habitats and the marine licences will be conditioned to ensure that a 50m exclusion zone is maintained.

- 8.13 The schedule of mitigation produced by the applicant includes measures to prevent the introduction of invasive non-native species through ballast water and bio-fouling. This includes compliance with the International Convention for the Control and Management of Ship’s Ballast Water and Sediments. The Scottish Ministers are satisfied that this mitigation is sufficient to mitigate the risks identified from these sources. In relation to the introduction of invasive

non-native species arising from the introduction of substrate, the licence will be conditioned to ensure that a risk assessment is included within the CEMP and suitable mitigation measures are identified.

Commercial Fisheries

- 8.14 The Scottish Ministers are satisfied that impacts on commercial fisheries have been sufficiently considered within the EIA Report and supporting documentation. Further the Scottish Ministers are content that appropriate consultation has taken place with fishermen and this dialogue will be continued through the implementation of the FLMAP. In addition, the Scottish Ministers are content that the use of rock protection will be minimised and a condition has been added to the marine licences to reflect this.

9 The Scottish Ministers' Determination and Reasoned Conclusion

- 9.1 The Scottish Ministers are satisfied that an environmental impact assessment has been carried out and that the applicable procedures regarding publicity and consultation in respect of the application have been followed.
- 9.2 The Scottish Ministers have weighed the impacts of the Works, and the degree to which these can be mitigated, against the economic benefits which would be realised. The Scottish Ministers have undertaken this exercise in the context of European, national and local policies.
- 9.3 The Scottish Ministers have considered the extent to which the Works accord with and are supported by Scottish Government policy and the terms of the NMP and the environmental impacts of the Works, in particular: the impact on the Buchan Ness to Collieston Coast SPA; impacts on benthic ecology; ornithological impacts; and impacts on commercial fisheries.
- 9.4 The Scottish Ministers are satisfied that the environmental issues associated with the Works have been appropriately addressed by way of the design of the project and mitigation. In particular, the Scottish Ministers are satisfied that the proposal will not adversely affect the integrity of the Buchan Ness to Collieston Coast SPA.
- 9.5 The Scottish Ministers have had regard to the requirements of Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.
- 9.6 In their consideration of the environmental impacts of the Works, the Scottish Ministers have identified conditions to be attached to the marine licences to reduce environmental impacts. These include production of a CEMP to include

a number of the mitigation measures identified by the consultees. The embedded mitigation and any additional mitigation measures identified in the EIA Report have also been incorporated into the conditions of the marine licences.

- 9.7 The Scottish Ministers are satisfied, having regard to current knowledge and methods of assessment, that this reasoned conclusion is still up to date.
- 9.8 The Scottish Ministers **grant marine licences subject to conditions** under Part 4 of the 2010 Act and under Part 4 of the 2009 Act for the construction of a HVDC interconnector from MHWS, Peterhead out to 12 nm and for rock protection from MHWS, Peterhead out to the UK-Norwegian median line. The marine licences are attached at Annex 2.
- 9.9 In accordance with the 2017 MW Regulations and the 2007 MW Regulations, the Applicant must publicise notice of this determination and how a copy of this decision letter may be inspected on the application website, in the Edinburgh Gazette and a newspaper circulating in the locality to which the application relates is situated. The Applicant must provide copies of the public notices to the Scottish Ministers.
- 9.10 Copies of this decision notice have been sent to the bodies consulted on the application including the relevant planning authority, SNH, JNCC, SEPA and HES. This decision notice has also been published on the [Marine Scotland Information website](#).
- 9.11 The Scottish Ministers' decision is final, subject to the right of any aggrieved person to apply to the Court of Session for judicial review. Judicial review is the mechanism by which the Court of Session supervises the exercise of administrative functions, including how the Scottish Ministers exercise their statutory function to determine applications for consent. The rules relating to the judicial review process can be found on the [website of the Scottish Courts](#). Your local Citizens' Advice Bureau or your solicitor will be able to advise you about the applicable procedures.

Yours sincerely. ✓ ✓
Redacted

Licensing & Consents Section Leader, Marine Scotland Licensing Operations Team

A member of the staff of the Scottish Ministers

14 February 2019