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EDF Renewables, United Kingdom  
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EH3 8BE

Our Ref: 050/OW/MainS-10

3 December 2018

[Redacted]

## **MARINE (SCOTLAND) ACT 2010**

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

#### **DECISION NOTICE FOR A MARINE LICENCE FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF NEART NA GAOITHE OFFSHORE WIND FARM, APPROXIMATELY 15.5km EAST OF FIFE NESS**

### **1 Application and description of the works**

- 1.1 On 16 March 2018 Neart Na Gaoithe Offshore Wind Ltd (“NnGOWL” or “the Applicant”) (Company Number SC356223) having its registered office at Atria One, 144 Morrison Street, Edinburgh, United Kingdom EH3 8EX, submitted to the Scottish Ministers [an application](#) under Part 4 of the Marine (Scotland) Act 2010 for a marine licence (“the OWF Marine Licence”) to deposit, construct and operate marine renewable energy works (“the Works”) associated with the proposed Neart na Gaoithe Offshore Wind Farm (“the Project”).
- 1.2 The application was accompanied by an Environmental Impact Assessment report (“EIA Report”) as required under The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (“the 2017 MW Regulations”) and a Habitats Regulations Appraisal report (“HRA Report”) as required under the Conservation (Natural Habitats, & c.) Regulations 1994 (as amended) and the Conservation of Habitats and Species Regulations 2017 (collectively hereinafter referred to as “the Habitats Regulations”).
- 1.3 In addition to this application, the Applicant has also applied for a marine licence (under the Marine (Scotland) Act 2010) in respect of the construction, operation and maintenance of offshore transmission infrastructure associated with the Project (“the OfTI Marine Licence”). The Applicant has also applied for consent

under section 36 of the Electricity Act 1989 (as amended) (“the s.36 Consent”) to construct and operate an offshore generating station and for a declaration extinguishing public rights of navigation under section 36A of the Electricity Act 1989. Separate decision notices will be issued in respect of these applications.

1.4 The Works comprise of the deposit, construction and operation of an offshore wind farm, including:

1. No more than 54 three-bladed horizontal axis Wind Turbine Generators (“WTGs”), comprised of fibreglass and steel, each with:
  - a) A maximum rotor tip height of 208 metres (measured from Lowest Astronomical Tide (“LAT”));
  - b) A maximum rotor diameter of 167 metres;
  - c) A maximum hub height of 126 metres (measured from LAT);
  - d) A minimum blade tip clearance of 35 metres (measured from LAT);
  - e) Blade width of up to 4.5 metres; and
  - f) A minimum spacing of 800 metres.
2. No more than 54 jacket foundations and ancillary equipment;
3. No more than 140km of inter-array cabling;
4. No more than four interconnector cables between the two Offshore Substation Platforms (“OSPs”) (the OSPs have been licensed under the OfTI Marine Licence, number: 06678/18/0);
5. A meteorological mast; and
6. Scour and cable protection.

All as described in the application.

1.5 The location and boundary of the site (hereinafter “the Site”) is shown delineated in red in Figure 1, Appendix 1.

**This decision notice contains the Scottish Ministers’ decision to grant regulatory approval for the Works detailed above, in accordance with regulation 23 of the 2017 MW Regulations.**

## 2 Summary of environmental information

2.1 The environmental information provided was:

- An [EIA Report](#) that provided an assessment of the impact on a range of receptors;
- A [HRA Report](#); and
- As a result of the responses from East Lothian Council, Scottish Natural Heritage (“SNH”) and Royal Society for the Protection of Birds Scotland (“RSPB Scotland”), received through the original consultation exercise, an

addendum of additional information ([“the EIA Addendum”](#)) relating to ornithology.

- 2.2 In May 2017, the Applicant submitted a [scoping report](#) and a request for a scoping opinion in respect of the Project to the Scottish Ministers. Following consultation with statutory and other consultees, a [scoping opinion](#) was issued by the Scottish Ministers on 8 September 2017, advising on the scope of the impacts to be addressed and the methods of assessment to be used within the EIA Report.
- 2.3 The Applicant currently holds a s.36 consent (“the Original Consent”) and marine licences (which the Scottish Ministers granted in October 2014) for an offshore wind farm development within the same boundary as the current application. As the Applicant had substantial evidence from the previous Environmental Statement submitted in 2012 for the application made for the Original Consent, it was possible to scope out a range of potential effects which were not found to be significant previously and where the baseline and assessment methodologies had not changed since 2012. A number of receptors were scoped out of the assessment completely, including (but not limited to); air quality, physical processes, geology and water quality. For the receptors which were scoped in, the assessment was limited to those effects which could be significant.
- 2.4 The EIA Report submitted assessed the impact pathways identified in the scoping opinion and was prepared in accordance with the terms of the 2017 MW Regulations. As the request for a scoping opinion was made before 16 May 2017, the transitional arrangements within the 2017 MW Regulations applied to it.
- 2.5 A summary of the environmental information provided in the EIA Report and the EIA Addendum is given below.

#### *Fish and Shellfish ecology*

- 2.6 During the construction phase, minor, adverse effects arising from; disturbance or injury as a result of particle motion arising from pile driving and disturbance from noise and particle motion arising from the Horizontal Direct Drilling pipe site works were reported for all fish and shellfish species. During the operational phase, potential disturbance resulting from particle motion, minor adverse effects on all fish and shellfish species were reported. In accordance with the scoping opinion justification was provided in the EIA Report for scoping diadromous fish out of the assessment.

#### *Marine mammals*

- 2.7 When the Project was considered in isolation, potential adverse effects arising from noise generated by pre-construction geophysical survey works and drilling construction noise were reported to be negligible for all species. Minor, adverse effects arising from pile driving construction noise were reported for harbour porpoise, bottlenose dolphin, minke whale and harbour seal, whilst the effects on white-beaked dolphin and grey seal were reported to be negligible.
- 2.8 The assessment of cumulative impacts within the EIA Report reported minor, adverse effects for harbour porpoise, white-beaked dolphin and harbour seal for

pile driving construction noise. Major, adverse impacts were reported for bottlenose dolphin and grey seal and moderate, adverse impacts for minke whale. The cumulative impact assessment considered the Project in-combination with all offshore wind farm projects in the Firths of Forth and Tay (Inch Cape offshore wind farm and Seagreen Alpha and Bravo offshore wind farms, “the Forth and Tay Developments”, the Moray Firth and the Aberdeen Harbour Expansion Project (“AHEP”).

- 2.9 In addition to the EIA Report, the HRA Report considered the impacts of the Project on the Moray Firth Special Area of Conservation (“SAC”), the Firth of Tay and Eden Estuary SAC, Isle of May SAC and Berwickshire and Northumberland Coast SAC. The HRA Report concluded that the Project would not adversely affect the integrity of these protected sites, alone or in-combination with other plans or projects.
- 2.10 The AA highlights issues with the population modelling completed by the Applicant, and the precautionary nature of the cumulative impact assessment for marine mammals, carried out by the Applicant. These issues have given rise to the major adverse effects identified in the EIA Report for bottlenose dolphin and grey seal. Additional population modelling completed by SNH reduces the population level impacts and the AA completed concludes that there will be no adverse effect on the integrity of any SACs with bottlenose dolphin or grey seal as qualifying interests from the Project alone or in-combination with other plans or projects.

#### *Ornithology*

- 2.11 The EIA Report assessed the impacts on ornithology receptors during the construction, operational and decommissioning phases of the Project. Effects from the Project in isolation were reported to be of negligible or minor significance, these included impacts resulting from construction activities and operational activities (displacement, barrier and collision impacts). No additional mitigation measures, beyond the embedded mitigation, were therefore proposed in respect of these impacts. The impacts during the decommissioning phase were assessed as being the same as the construction phase impacts.
- 2.12 The embedded mitigation measures included within the EIA Report included the reduction in the maximum number of Wind Turbine Generators (“WTG”) proposed compared with the Original Consent and the increase in the minimum blade tip clearance of 35 m above LAT.
- 2.13 The cumulative assessment reported minor, adverse effects for puffin and negligible adverse effects for all other species arising from displacement and barrier impacts.
- 2.14 For the cumulative assessment of collision impacts, two scenarios were assessed:
- i) Scenario 1: the Project alongside the 2017 design parameters for Seagreen Alpha and Bravo wind farms and Inch Cape wind farm as outlined in their scoping reports as of 15 May 2017 and 28 April 2017 respectively; and

- ii) Scenario 2: the Project alongside consented designs for Seagreen Alpha and Bravo wind farms and Inch Cape wind farm as determined in October 2014 (the Forth and Tay Developments).

- 2.15 Scenario 1 predicted no significant effects. Scenario 2 predicted moderate impacts in terms of cumulative kittiwake collision mortality impacts in both the breeding and non-breeding seasons. The Applicant considers it highly unlikely that the 2014 consented Seagreen Alpha and Bravo wind farms and Inch Cape wind farm will be built to the maximum extent of their consented envelopes, therefore the outcomes of Scenario 2 were reported as being precautionary.
- 2.16 The EIA Addendum contained further information clarifying the assessment contained within the EIA and HRA Reports, including a comparison of the re-run population viability analysis models for guillemot and razorbill and further apportioning analysis for the guillemot, razorbill and kittiwake qualifying interests of the relevant Special Protection Areas “SPAs”. The EIA Addendum did not alter the conclusions of the assessment reported in the EIA Report.
- 2.17 In addition to the EIA Report, the HRA Report considered the impacts of the Works on Forth Islands SPA, Fowlsheugh SPA, St Abbs Head to Fast Castle SPA, Buchan Ness to Collieston Coast SPA and the Outer Firth of Forth and St Andrews Bay Complex proposed SPA (“pSPA”). The HRA Report concluded that the Project would not adversely affect the integrity of these protected sites alone or in-combination with other plans or projects.

#### *Commercial Fisheries*

- 2.18 Impacts from the construction, operational, maintenance and decommissioning phases of the Project were considered within the EIA Report. The construction period is anticipated to last 3 years and is predicted to be continuous in respect of the wind farm area as a whole. The OEC is anticipated to be installed over a period of nine months.
- 2.19 Construction phase impacts considered both the construction activities and the physical presence of the constructed Project, leading to; a reduction in access to, or exclusion from, established fishing grounds for a range of fish resources, additional steaming times to alternative fishing grounds for vessels that would otherwise had been fishing within the Site and increased vessel traffic within fishing grounds as a result of changes to shipping routes and construction vessel traffic from the Project.
- 2.20 Operational phase impacts included the impacts arising from the physical presence of the Project infrastructure within the wind farm area, leading to; reduction in access to, or exclusion from established fishing grounds, gear snagging, additional steaming to alternative fishing grounds for vessels and increased vessel traffic within fishing grounds arising from changes to shipping routes and maintenance vessel traffic from the Project – resulting in interference with fishing activity.
- 2.21 Impacts from the Project in isolation were considered to be minor or negligible, however, impacts arising from the reduction in access to, or exclusion from

established fishing grounds, were classified as being of moderate significance for potting vessels during the operation and maintenance phases of the Project.

- 2.22 The cumulative impact assessment in the EIA Report concluded that reductions in access to, or exclusion from, potential and/or established fishing grounds and the effects of displacement (gear conflict and increased fishing pressure on alternative grounds) were of moderate significance for a range of commercial fisheries receptors. Other cumulative effects such as longer steaming distance and changes to shipping routes, leading to inference with fishing activity, were reported as being of minor or negligible significance.
- 2.23 A wide range of potential impacts were identified, both for the Project alone, and cumulatively, in relation to all phases of the Project and a range of receptors. Whilst some moderate adverse effects were initially identified, the EIA Report advised that implementation of additional mitigation measures reduced these effects to minor significance.

#### *Shipping and Navigation*

- 2.24 The impacts of the Project on shipping and navigation receptors during the construction, operational and decommissioning phases were considered in the EIA Report. The impacts of the Project in isolation were reported as being of minor significance.
- 2.25 Cumulative effects, including impacts arising from the loss of navigable sea room and deviations around the structures, thereby resulting in increased allision (vessel to structure) and collision risk, were reported as being of moderate significance for all vessel types. The application of mitigation measures did not change the residual significance of the effects.

#### *Military and Aviation*

- 2.26 The EIA Report reported major significant effects on military and aviation receptors as a result of the Project, both in isolation and in-combination with other developments.
- 2.27 The EIA Report stated that the Project in isolation would have major significant effects on Leuchars Station Primary Surveillance Radar, Leuchars Station Precision Approach Radar and Remote Radar Head (“RRH”) Brizlee Wood and RRH Buchan Air Defence Radars (“ADR”) (resulting from reflected turbine signals from the WTGs) and on activities carried out in military Practice and Exercise Areas (“PEXA”). Military PEXA activity may be impacted by the creation of clutter on radar systems. The mitigation measures proposed in the EIA Report reduced the residual level of significance to minor, i.e. not significant. Mitigation measures are to be discussed further with the Ministry of Defence (“MOD”).
- 2.28 The use of helicopters to support operational and maintenance activities was deemed to be of minor/negligible effect.
- 2.29 The in-combination assessment reported major significant effects arising from persistent interference to RAF Leuchars PSR, RRH Brizlee Wood and RRH Buchan ADRs from the WTGs. The mitigation measures proposed in the EIA

Report reduced the residual level of significance to minor, i.e. not significant. Mitigation measures are to be discussed further with the MOD.

### *Cultural Heritage*

- 2.30 The EIA Report considered impacts on the setting of archaeological and cultural heritage receptors, both onshore and offshore arising from the construction, operational and decommissioning phases of the Project.
- 2.31 The effects arising from the operational phase of the Project in isolation, on the setting of onshore cultural heritage and archaeology receptors, were reported to be of minor or negligible significance. The effects of the Project in-combination with the Forth and Tay Developments were deemed to be of minor or negligible significance, with the exception of effects on the Isle of May Priory, which were deemed to be of moderate significance. The Isle of May Priory is a Scheduled Monument and the Works will be 16.5km to the east and the turbines will be visible to visitors of the priory and therefore, will contribute to a low level negative effect on the setting of the priory.

### *Seascape and Landscape Visual Impact Assessment*

- 2.32 The EIA Report included an assessment of seascape, landscape and visual impact assessment during the construction, operational and decommissioning phases of the Project. During the construction phase the EIA Report reported only minor effects (during landfall construction works at Thorntonloch beach). Impacts during the decommissioning phase were anticipated to be similar to those assessed during construction.
- 2.33 Impacts of moderate significance were reported for the operational phase including; the impact of the Works on coastal character, and on visual amenity (within 35km only). The impact of aviation and navigation lighting on coastal character (along the Fife coast only) and on visual amenity (within 30km) was also reported to be of moderate significance. The impact of the Project on visual amenity within 22km was, however, reported to be of major significance.
- 2.34 The cumulative assessment reported impacts of moderate significance on coastal character arising from the additional presence of the Project in east Fife and south-east Angus (with impacts for other areas being of minor or negligible significance). However, the cumulative impact on visual amenity arising from views of the Project, in addition to other wind farms, was deemed to be of major adverse significance where both the Project and the Inch Cape offshore wind farm are viewed at closer range (and minor or negligible elsewhere). No mitigation measures were identified to reduce the significance of these impacts. Further minor or negligible effects were identified throughout the operational and decommissioning phases.

### *Socio-Economics*

- 2.35 The EIA Report advised that socio-economic impacts during the construction, operational and decommissioning were positive, with effects that are quantifiable, ranging from minor positive effects upon the Local Study Area

(defined as the combined local authorities of Angus, City of Edinburgh, Dundee, East Lothian and Fife), to moderate positive Scotland-wide effects.

- 2.36 Moderate positive significant effects were reported for the construction phase of the Project resulting from direct and indirect employment creation in the construction supply chain for both the Local Study Area and Scotland. Minor, positive effects were also reported for the Local Study Area and Scotland resulting from indirect and direct Gross Value Added (“GVA”) creation in the construction supply chain. Further minor, positive effects were reported for the operational phase on GVA creation in the construction supply chain and during the decommissioning phase on indirect and direct job and GVA creation in the construction supply chain.
- 2.37 Whilst the EIA Report stated that cumulative impacts are expected to be positive, it recognised that it is not possible to confidently predict the level of cumulative impact on direct and indirect employment and GVA creation within the supply chain. This depends on several factors, which are, at this time, unknown, including; the overall costings and geographical sourcing of goods and services for the construction and the operation and maintenance of other wind farms. As this is not yet known, the EIA Report advised that it is impossible to provide a quantitative assessment of the potential cumulative effects.

### 3 Consultation

- 3.1 In accordance with the 2017 MW Regulations, on 16 March 2018, the Applicant submitted an EIA Report and HRA Report describing the Works and giving an analysis of its significant environmental effects. On 26 July 2018, the Applicant submitted an EIA Addendum addressing specific queries raised in relation to the ornithology assessment included within the EIA Report and HRA Report.
- 3.2 Advertisement of the application and EIA Addendum was made in the local and national press and the application website. The notices were placed in the public domain and the opportunity given for those wishing to make representations to do so.
- 3.3 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
EIA Report and Application	16 March 2018	28 March 2018 – 13 May 2018	Dundee Courier (4 & 11 April 2018) East Lothian Courier (5 & 12 April 2018)

		(24 March 2018 – 3 August 2018 for Planning Authorities)	Edinburgh Gazette – (3 & 10 April 2018) The Scotsman (4 April 2018) Fishing News (5 & 12 April 2018) <a href="#">NnGOWL website</a> (3 April 2018)
EIA Addendum	26 July 2018	27 July 2018 – 10 September 2018	Dundee Courier (2 & 9 August 2018) East Lothian Courier (2 & 9 August 2018) Edinburgh Gazette (5 & 12 August 2018) The Scotsman (9 August 2018) Fishing News (2 & 9 August 2018) NnGOWL website (1 August 2018)

- 3.5 A summary of the responses received is set out at sections 4, 5 and 6. In addition, specialist advice was provided by Marine Scotland Science (“MSS”) and the advice received is set out at section 7.
- 3.6 The responses to the consultation on the EIA Report are available to view [here](#) and the responses to the consultation on the EIA Addendum are available to view [here](#).
- 3.7 In addition, Scottish Natural Heritage (“SNH”) was consulted on the Appropriate Assessment (“AA”) completed by Scottish Ministers.

#### 4 Summary of statutory consultee responses

- 4.1 Under the 2017 MW Regulations, the statutory consultees are as follows: SNH, the Scottish Environment Protection Agency (“SEPA”), Historic Environment Scotland (“HES”) and the planning authorities whom the Scottish Ministers consider appropriate in respect of the proposed Works, in this instance; Angus Council, Dundee City Council, East Lothian Council, Fife Council and Scottish Borders Council.

- 4.2 In addition, the Maritime and Coastguard Agency (“MCA”) and Northern Lighthouse Board (“NLB”) are statutory consultees under the Marine (Scotland) Act 2010.
- 4.3 Angus Council did not object to the application and advised that the impacts of the Project, in terms of material considerations relevant to Angus Council’s administrative area, do not raise any new or significant issues. Angus Council stated that their comments provided on the application for Original Consent remain valid to some extent.
- 4.4 Angus Council consider that there would be significant impacts on landscape and seascape character, however, it did not consider these visual impacts to be unacceptable. Angus Council considered that the aviation and navigation lighting would have significant night seascape impacts, in particular in relation to the setting of the Bell Rock Lighthouse, and that further consideration of appropriate technical solution(s) and mitigation measures is required.
- 4.5 Angus Council highlighted that its concerns raised in relation to the cumulative seascape, landscape and visual impacts for the application for Original Consent in-combination with the Forth and Tay Developments remain valid. Angus Council highlighted that consistency is required to ensure that the collective view does not become visually inconsistent or distort seascape perspective. However, these significant visual impacts were not considered unacceptable. Cumulative effects of lighting were also considered and Angus Council state that further consideration of this issue is required to identify a consistent lighting solution and appropriate mitigation measures.
- 4.6 Angus Council advised also that HES had noted the presence of nationally important designated cultural heritage assets within the vicinity of the Project. However, HES is content that the impact does not raise issues of national significance. However, Angus Council considered that this impact is likely to be higher than the ‘minor’ value assigned to it for both setting impacts and cumulative impacts. Angus Council previously expressed concerns regarding the impact of the Project on the Bell Rock Lighthouse and would concur with the assessment of HES in this regard, but highlights that the EIA Report has limitations in terms of assessing impacts of aviation and navigation lighting on the setting of the asset.
- 4.7 Angus Council had no comments to make on the EIA Addendum.
- 4.8 Dundee City Council advised that the application and supporting information appeared satisfactory and it had no other comments to make.
- 4.9 Dundee City Council had no comments to make on the EIA Addendum.
- 4.10 East Lothian Council initially submitted an objection to the Project, based on SNH’s advice which stated that there would be adverse effects on the site integrity of Natura 2000 sites within or adjacent to the East Lothian Council administrative area. East Lothian Council subsequently provided a response following receipt of the EIA Addendum, stating that its objection had been withdrawn following receipt of SNH’s response to the EIA Addendum.

- 4.11 East Lothian Council noted SNH's comments regarding potential adverse effects on the site integrity of the Forth Islands SPA and Fowlsheugh SPA, however, East Lothian Council further noted that SNH considers the effects of the Application to be less than the predicted effects for the Original Consent. Therefore, East Lothian Council withdrew its objection, on the basis that the predicted effects of the Project would be less than those of the Original Consent.
- 4.12 In its response, East Lothian Council considered the National Planning Framework 3 ("NPF3"), the Scottish Planning Policy 2014 ("SPP"), the National Marine Plan ("NMP"), the Strategic Development Plan for Edinburgh and South East Scotland ("SESPlan") Strategy Development Plan June 2013, Proposed Strategic Development Plan 2016, East Lothian Local Development Plan 2008 and the proposed East Lothian Development Plan and the Note on Community Benefits from Offshore Renewable Energy Developments – Scottish Government Good Practice Principles.
- 4.13 East Lothian Council provided comment on the risks associated with pollution incidents and possible impacts on geology, water quality, recreation and wildlife. East Lothian Council requested that conditions were placed on any consent or regulatory approval granted to ensure that best practice is followed during all phases of the Project to avoid the risk of pollution as far as possible and to ensure that financial provision is put in place to ensure that sufficient resources are available for any remedial action required.
- 4.14 East Lothian Council raised concerns regarding potential impacts on Thorntonloch beach and the Thorntonloch Local Geodiversity Site and asked Marine Scotland to consider whether there is a need for further information regarding coastal hydro-dynamics.
- 4.15 East Lothian Council provided comments on the cultural heritage assessment, in particular the cumulative assessment undertaken. East Lothian Council considered that the cumulative assessment should have taken into account onshore wind farm developments and the potential cumulative impacts from both the offshore and onshore wind farms will have a significant impact on cultural heritage receptors.
- 4.16 East Lothian Council considered that there are likely to be significant adverse seascape and visual impacts from the Project. East Lothian Council did not agree with the classification of the level of significance of the effects for seascape SA17 (Eyebroughy to Torness Point) within East Lothian or the classification of the magnitude of cumulative impact for all viewpoints within East Lothian. East Lothian Council also provided comments on the potential impacts of turbine lighting.
- 4.17 East Lothian Council provided suggestions of potential mitigation measures to reduce the effects of the Project, including: monitoring measures and remediation of significant effects identified through monitoring, paint colour and finish, lighting solutions and the preparation of a detailed design and layout plan.
- 4.18 East Lothian Council also commented on the arrangements for decommissioning, including the need to ensure financial arrangements are in place to support decommissioning.

- 4.19 Conditions have been placed upon the s.36 Consent to mitigate the impacts highlighted by East Lothian Council, including the requirement to prepare, consult on and adhere to the Lighting and Marking Plan (“LMP”), Design Specification and Layout Plan (“DSLPL”), Design Statement (“DS”), Construction Method Statement (“CMS”) and Decommissioning Programme (“DP”). Conditions have been placed upon the OfTI Marine Licence to mitigate these impacts, including the requirement to prepare, consult on and adhere to a CMS, Construction Programme (“CoP”), Cable Plan (“CaP”) Piling Strategy (“PS”), Environmental Management Plan (“EMP”) and Project Environmental Monitoring Programme (“PEMP”). Conditions regarding environmental protection and implementation of best practice (conditions 3.1.9, 3.1.10, 3.2.2.2) and requiring the restoration of the site to its original condition (condition 3.2.1.9) have been attached to the OfTI Marine Licence to mitigate the impacts highlighted by East Lothian Council.
- 4.20 Further, conditions have been placed upon the OWF Marine Licence to ensure that environmental impacts are minimised (such as conditions 3.1.8, 3.1.9 and 3.1.8).
- 4.21 Fife Council was supportive of the application, noting that the Project would make a significant contribution to Scotland’s ambitious renewable energy generation and carbon dioxide reduction targets, whilst having the potential to contribute significantly to economic growth in the region in terms of local supply chain contributions and potential increases in tourism.
- 4.22 Fife Council had no comments to make on the EIA Addendum.
- 4.23 Scottish Borders Council did not object to the application and noted that, whilst tip heights have increased by 11 metres, the number of turbines within the array has been significantly reduced to 54. Given the distance has not altered at 30km plus, any slight perception of increased tip height is likely to be more than offset by the significant reduction in turbine numbers. This has been assessed through the Zone of Theoretical Visibility (“ZTV”) information and Viewpoints 20 (Coldingham Moor) and 21 (St Abbs Head).
- 4.24 Scottish Borders Council did, however, recommend conditions regarding sequential pile driving and the implementation of mitigation measures to reduce impacts on the qualifying interests of the St Abb’s Head to Fast Castle SPA be included as conditions of regulatory approval.
- 4.25 Scottish Borders Council had no comments on the EIA Addendum.
- 4.26 The AA considers the Project’s impacts on SPA qualifying interests. Conditions have been placed upon the s.36 Consent, the OfTI Marine Licence and the OWF Marine Licence to mitigate the impacts highlighted by Scottish Borders Council, including the requirement to prepare, consult on and adhere to the PEMP, PS and CMS.
- 4.27 Historic Environment Scotland (“HES”) was content that the EIA Report provided sufficient information, and HES did not object to the application. For the majority of the assessment with the exception of Bell Rock Lighthouse, HES was content

to agree that the level of impacts on the setting of cultural heritage receptors is likely to be minor.

- 4.28 HES provided detailed comments on the assessment methodology utilised and the level of information provided within the EIA Report. HES stated that the definitions used for sensitivity of receptor are occasionally inconsistent, which may have the potential to affect the conclusions of the level of impact.
- 4.29 HES considered that the level of impact on the setting for the Bell Rock Lighthouse may have been underestimated, both in isolation and in-combination with other wind farm developments. HES considered that the impact may be higher than the 'minor' value assigned, for both setting and cumulative impacts, however, HES is content that this does not raise issues of national significance.
- 4.30 Following further discussion with the Applicant, HES stated that it was content with the justifications provided by the Applicant and that any differences in the conclusions reached by HES and the Applicant do not significantly alter the conclusions of the assessment.
- 4.31 HES had no comments on the EIA Addendum.
- 4.32 Maritime & Coastguard Agency ("MCA") advised that detailed discussion with the Applicant regarding the required traffic surveys updates had taken place. The MCA accepted the original Navigation Risk Assessment ("NRA"), the updated EIA Report, the traffic validation study and MGN 543 checklist, as constituting an equivalent to a new NRA.
- 4.33 The MCA commented on the proposed layout design and requested that the final turbine layout design is subject to its approval. Further consideration of the layout design is required to mitigate risks to surface vessels (including rescue boats) and Search and Rescue ("SAR") aircraft operating within the Site and to ensure all structures are aligned in straight rows and columns.
- 4.34 The MCA was satisfied that the recommendations within the Marine Guidance Note ("MGN") checklist had been adequately addressed and requested that a SAR checklist and updated Emergency Response Co-operation Plan ("ERCoP") be completed and implemented throughout the lifespan of the Project. MCA further requested that hydrographic surveys be undertaken to fulfil the requirements of the International Hydrographic Organisation Order 1a standard.
- 4.35 The MCA supported the use of safety zones throughout the lifespan of the Project, but stated that further detailed justification would be required for the implementation of a 50m operational safety zone.
- 4.36 The MCA stated that further work needs to be undertaken to define cable burial and protection options, particularly close to shore where impacts on navigable water depth may become significant. MCA stated that any consented cable protection works must ensure existing and future safe navigation is not compromised. The MCA would accept a maximum of 5% reduction in surrounding depth referenced to chart datum. The MCA stated that existing charted anchorage areas should be avoided.

- 4.37 The MCA advised that lighting and marking requirements would require further discussion with key stakeholders and provided further detail on the requirements for turbine lighting.
- 4.38 The MCA welcomed the list of embedded mitigation provided by the Applicant and stated that the Applicant should clarify whether they intend to install Automatic Identification System (“AIS”) receivers and how they intend to communicate with vessels e.g. Very High Frequency (“VHF”) radio systems should be utilised, and where the Project is wholly or partially outside effective shore based radio coverage, access should be provided to HM Coastguard.
- 4.39 The MCA stated that the cumulative impact assessment in the EIA Report provided a comprehensive overview. The MCA noted that Appendix 11.2 of the EIA Report provides an indication of the rerouting that may occur as a result of the Project, and that the Applicant has recommended that marine traffic is monitored via AIS post-construction to ensure actual changes in shipping behaviour resulting from the Project can be fully understood. The MCA stated that this monitoring will serve to confirm deviated routing and will also provide an indication of any vessel activity occurring within the Site.
- 4.40 Finally, MCA advised that its preference would be for continuous construction operations, which are progressive across the Project with no opportunity for two separate areas to be constructed with a gap in the middle.
- 4.41 MCA had no comments on the EIA Addendum.
- 4.42 Conditions have been placed upon the s.36 Consent, the OfTI Marine Licence and the OWF Marine Licence to mitigate the impacts highlighted by MCA, including the requirement to prepare, consult on and adhere to the Emergency Response Co-operation Plan (“ERCoP”), Construction Programme (“CoP”), CaP, CMS, DSLP, Navigational Safety Plan (“NSP”) and Lighting and Marking Plan (“LMP”).
- 4.43 Northern Lighthouse Board (“NLB”) stated that it requires the Applicant to establish a NSP and LMP, detailing the proposed marking and lighting for the lifespan of the Project. The NLB provided detailed comments on the lighting and marking requirements during the construction, operational and decommissioning phases of the Project, to be included within such plans.
- 4.44 NLB further highlighted that the lighting and marking requirements may require to be altered or amended according to other developments within the Forth and Tay.
- 4.45 The NLB provided further comments on the requirement to obtain a Statutory Sanction prior to the deployment of navigational marking and lighting equipment, promulgation of information regarding the nature and timescales of the Project and the requirement to inform the United Kingdom Hydrographic Office (“UKHO”) of turbine installation locations, cable routes and cable landing points.
- 4.46 The NLB noted that an ERCoP will be required, detailing emergency response arrangements in the event of catastrophic failure and/or collision scenarios.

- 4.47 The NLB had no comments on the EIA Addendum.
- 4.48 Conditions have been placed on the s.36 Consent, the OfTI Marine Licence and the OWF Marine Licence to mitigate the impacts highlighted by the NLB, including the requirement to prepare, consult on and adhere to the ERCoP, NSP and LMP. Conditions have been attached to the OWF Marine Licence regarding the ERCoP and requiring that the Works are lit and marked in accordance with the requirements of the NLB during all phases of the Works.
- 4.49 Scottish Environment Protection Agency (“SEPA”) had no comments to make on the offshore element of this proposal and referred to their standing advice on marine consultations ([LUPS-GU13](#) Marine Scotland consultations: SEPA standing advice for Marine Scotland on marine licence consultations).
- 4.50 SEPA had no comments on the EIA Addendum.
- 4.51 Conditions relating to SEPA’s standing advice have been placed on the s.36 Consent, including the requirement to prepare, consult on and adhere to the EMP to minimise the risk of pollution. Conditions relating to SEPA’s standing advice have been placed on the OWF Marine Licence and OfTI Marine Licence, including the removal and disposal of any debris or waste material placed below MHWS during the construction phase.
- 4.52 Scottish Natural Heritage (“SNH”) submitted an objection to the application based on the grounds that it predicted adverse effects on the site integrity of the Forth Islands SPA, Fowlsheugh SPA and St Abb’s Head to Fast Castle SPA for the Project in-combination with the existing consents for the other Forth and Tay Developments.
- 4.53 SNH initially advised that it was unable to provide advice on the razorbill and guillemot qualifying interests, due to the use of incorrect population counts within the population modelling.
- 4.54 The Applicant subsequently provided responses within the EIA Addendum to SNH’s queries including the outputs of the population modelling undertaken with the correct population counts for razorbill and guillemot.
- 4.55 Following consideration of the EIA Addendum, SNH maintained its objection to the Project on the basis that it predicted significant adverse effects on the Forth Islands SPA (for gannet and kittiwake) and Fowlsheugh SPA, in-combination with the existing consents for the Forth and Tay Developments. Further discussion took place between stakeholders on 18 September 2018 to discuss the issues further.
- 4.56 As there were some inconsistencies in the ornithology information provided by the Applicant to inform the AA, Scottish Ministers consulted SNH further on the information used to inform the AA which was taken from other sources. In addition SNH provided apportioning calculations for some species.
- 4.57 Following this consultation on the information being used to inform the AA, SNH maintained its objection, and advised that it believed there would be an adverse

effect on the integrity from the Project in-combination with the existing consents from the other Forth and Tay Developments as follows:

- Forth Islands SPA with respect to gannet, kittiwake and razorbill;
- Fowlsheugh SPA with respect to kittiwake and razorbill; and
- St Abb's Head to Fast Castle SPA with respect to kittiwake.

4.58 SNH advised that it believed that the greatest levels of impacts on marine mammals would occur during the construction phase of the Works. SNH welcomed the commitment to implement mitigation and consent conditions and provided further advice on these measures.

4.59 SNH maintained that the outputs of the model of the interim Population Consequences of Disturbance ("iPCoD") used by the Applicant were unreliable, due to known issues in the code and uncertainties regarding the input parameters. As it considered that these outputs could not be relied upon, SNH provided a qualitative assessment of the effects of Permanent Threshold Shift ("PTS") and disturbance from piling events (both single and concurrent events). SNH advised that if an updated model became available, the model should be rerun.

4.60 Following revisions to the iPCoD model, a workshop was held between Marine Scotland and SNH on 7 September 2018. This resulted in SNH running various agreed in-combination scenarios for bottlenose dolphin and grey seal to inform its advice. SNH provided outputs of this exercise and further advice on 26 September 2018.

4.61 SNH advised that the effect on the Moray Firth bottlenose dolphin population from the Works in-combination with the other Forth and Tay Developments, the Beatrice offshore wind farm, the Moray East offshore wind farms, the Moray West offshore wind farm proposal and the Aberdeen Harbour Expansion Project would not result in an adverse effect on site integrity of the Moray Firth SAC.

4.62 SNH advised that the Project in-combination with the other Forth and Tay Developments would not have an adverse effect on the integrity of the Isle of May SAC or the Berwickshire and Northumberland Coast SAC with respect to grey seal.

4.63 SNH also provided advice on landscape and visual impacts of the Project both in isolation and in-combination with the other Forth and Tay Developments. SNH advised that the individual and in-combination impact of the Project and as-consented Forth and Tay Developments would be the same and, therefore, its advice regarding significance of impacts for the Original Consent remained applicable. SNH advised that it believed the cumulative impact of the Project in-combination with the Forth and Tay Developments would be significant and adverse, in particular due to the increased height of the proposed Inch Cape Offshore Wind farm. SNH considered the worst-case scenarios assessed within the EIA Report.

4.64 SNH recommended that a number of conditions relating to the pre-construction, construction, operational and decommissioning phases should be attached to

any consent or regulatory approval granted in order to mitigate the impacts detailed above.

- 4.65 Conditions have been attached to the s.36 Consent and OfTI Marine Licence requiring the Applicant to prepare, consult on and adhere to EMP, PS, LMP, DSLP, DS, PEMP, VMP, DP and participate in the Forth and Tay Regional Advisory Group (“FTRAG”) to address the concerns outlined above. SNH will be consulted on the terms of the appointment for the Environmental Clerk of Works (“ECoW”), to ensure effective monitoring of and compliance with the environmental mitigation and management measures associated with the Project.

## **5 Summary of non-statutory consultee responses**

- 5.1 A number of other bodies and organisations were consulted on the EIA Report and EIA Addendum and provided responses.
- 5.2 BT Radio Network Protection (“BT”) advised that the Project should not cause interference to BT’s current and presently planned radio network.
- 5.3 Chamber of Shipping (“CoS”) raised no objections and commended the useful summary in Appendix 11.3 of the EIA Report of the MGN 543 Checklist.
- 5.4 Dunbar Fishermen’s Association (“DFA”) advised that the preparation and placement of cables would cause disruption to fishing grounds and that, should cable burial not be possible, this may result in permanent loss of fishing grounds. DFA stated that compensation would be necessary and that this would need to be considered further.
- 5.5 Conditions requiring the Applicant to prepare, consult on and adhere to a Fisheries Management and Mitigation Strategy (“FMMS”) and VMP (including the requirement to prepare a fishing gear De-Confliction Notice) and to participate in the Forth and Tay Commercial Fisheries Working Group (“FTCFWG”) have been attached to the s.36 Consent to mitigate these concerns.
- 5.6 Esk District Salmon Fishery Board (“Esk DSFB”) submitted an objection to the application.
- 5.7 Esk DSFB stated that it does not agree with the conclusions of the EIA Report regarding the impacts on wild Atlantic salmon and sea trout populations. Esk DSFB strongly recommended that the Applicant be compelled to conduct pre-, peri- and post-construction monitoring of wild salmon and sea trout in and around the Site to detect any changes in baseline conditions resulting from the project. Esk DSFB raised concerns regarding potential in-combination effects of the Forth and Tay Developments on wild salmonids.
- 5.8 Esk DSFB stated that it fully supports the comments and recommendations made by Fisheries Management Scotland (“FMS”) in response to the application. Esk DSFB stated that it would maintain its objection until an agreed and accepted monitoring and mitigation strategy is produced. Esk DSFB stated that it was keen

to engage with the Applicant and other stakeholders to develop and deliver this strategy.

- 5.9 The Applicant provided further justification of the information used to support the preparation of the EIA Report and reiterated the commitment to the development of the PEMP, in consultation with FTRAG. No subsequent response was received from the Esk DSFB.
- 5.10 Conditions requiring the Applicant to participate in the FTRAG and prepare, consult on and implement the PEMP (which includes the requirement to monitor diadromous fish) and the requirement for an EMP have been attached to the s.36 Consent and OfTI Marine Licence.
- 5.11 Eyemouth Harbour Trust (“EHT”) supported the granting of regulatory approval for the Project, based on matters including: an otherwise unused resource being turned into a valuable commodity, having a generation capacity wholly in Scottish Territorial Waters to enhance the security of the national electricity supply, the contribution made by the Project to achievement of Scottish, UK and international targets for greenhouse gas emissions by 2050 and potential benefits to Scottish industry and coastal communities.
- 5.12 EHT stated that its concerns, regarding local natural environment during the construction and operational phases of the Project, had been adequately addressed in the EIA Report. EHT welcomed the proposal to establish and maintain involvement with relevant statutory bodies and other local and national bodies, such as the involvement in the FTRAG and through the preparation and implementation of the PEMP.
- 5.13 EHT welcomed the consultation undertaken with local fisheries representatives during the preparation of the EIA Report and the proposal that these activities continue to be actively pursued in order to minimise intrusion to the fishing industry. Where said intrusion impacts adversely on the fishermen’s income, EHT welcomed the Applicant’s commitment to compensate for losses.
- 5.14 Conditions have been attached to the s.36 Consent and OfTI Marine Licence which will implement the commitments outlined in the EIA Report, including the requirement to prepare, consult on and implement the PEMP and to participate in the FTRAG.
- 5.15 Forth District Salmon Fishery Board (“Forth DSFB”) raised concerns regarding potential impacts on migrating adult Atlantic salmon. Forth DSFB considered this receptor is of particularly high sensitivity as a large proportion of the east coast population pass through the Site. Forth DSFB state that uncontrolled negative effects will affect the whole of the east coast including the Rivers Tweed, Tay and South Esk.
- 5.16 Forth DSFB expressed its disappointment that many individual small-scale impacts were scoped out of the EIA Report when considered as standalone impacts. Forth DSFB stated it is disappointed that the cumulative impact of many small effects over an exceptionally large area, when the Project are considered together with the Forth and Tay Developments, has not been assessed.

- 5.17 Forth DSFB welcomed the commitment to participate in the FTRAG and development of an environmental monitoring plan for diadromous fish species. Forth DSFB stated that it is appropriate to use the Project (together with the other Forth and Tay Developments) as an opportunity to further the understanding of salmonid movements and the impacts of offshore wind farms on salmonids. Forth DSFB advised that, should monitoring identify any negative impacts resulting from the Project, there should be a requirement for the developers to fund compensatory activities in the affected catchments to reduce and mitigate any further detriment to the Atlantic salmon and sea trout populations.
- 5.18 A response from the Applicant, along with MSS comments on consultation responses relating to diadromous fish were forwarded to Forth DSFB. The Applicant provided further justification of the information used to support the preparation of the EIA Report and reiterated the commitment to the development of the PEMP, in consultation with FTRAG. No subsequent response was received from the Forth DSFB.
- 5.19 Conditions have been added to the s.36 Consent and OfTI Marine Licence which will implement the commitment to participate in the FTRAG, as outlined in the EIA Report and include the requirement to prepare, consult on and implement the PEMP.
- 5.20 Fisheries Management Scotland ("FMS") objected on the grounds that the application contains insufficient information to make an adequate assessment of the potential effect on salmonid populations. FMS stated that there is a lack of knowledge of the migratory routes of smolts (Atlantic salmon and sea trout) and the potential secondary impacts on increased predation of migratory fish by seals. FMS also emphasised the importance of the consenting process being flexible enough to take into account relevant information relating to migratory fish, as and when such information becomes available. FMS stated that it is therefore important that conditions are included which allow appropriate additional mitigation to be put in place, should negative impacts prove more likely than reported in the EIA Report.
- 5.21 FMS had a number of comments on Appendix 7.2: Atlantic salmon – Appraisal of Original EIA, around the use of the Project by seals and the potential for increased predation of migratory salmonids. FMS disagreed that Atlantic salmon present within the Site are less at risk of being predated, as they are actively migrating and that sea trout and Atlantic salmon, as priority marine features have not been considered. FMS advised that, for these reasons, they do not consider NMP General Policy 9 to have been considered fully.
- 5.22 FMS emphasised that it does not wish to prevent or delay the Project unnecessarily and welcome to the opportunity to work with the Applicant, stakeholders and the Scottish Ministers to identify appropriate monitoring programmes. These monitoring programmes would allow more appropriate assessment of the acknowledged risks of the Project, and other proposed developments.
- 5.23 FMS considered that there is a clear and urgent need to fund, plan and start strategic research on the movement, abundance, swimming depth, feeding

behaviour etc. of salmon and sea trout. FMS stated that such research would clearly feed into the potential mitigation measures to be implemented and the conditions under which such mitigation should be enacted.

- 5.24 FMS considered that the installation of fish counters, particularly in SAC rivers, to allow the real time understanding of adult salmon abundance (and other, newer technology) should be an immediate priority. FMS suggested that the installation of such counters, in close liaison with DSFBs and MSS, could potentially be considered as a condition of consent or approval, where appropriate to local conditions.
- 5.25 FMS stated that offshore wind farm developers should be encouraged to work together to fund such strategic monitoring, including the on-going costs of operating such counters, in order to allow more certainty for all involved..
- 5.26 A response from the Applicant, along with MSS comments on consultation responses relating to diadromous fish were forwarded to FMS. No subsequent response was received from FMS.
- 5.27 Conditions have been added to the s.36 Consent and OfTI Marine Licence which will implement the commitment to participate in the FTRAG, as outlined in the EIA Report and include the requirement to prepare, consult on and implement the PEMP.
- 5.28 Forth Ports advised that in light of the cumulative effect of the wind farms, a coastal vessel traffic service for the passing traffic may be required and should be considered further.
- 5.29 The Applicant advised that a coastal vessel traffic service for passing traffic has been considered and is not deemed necessary in the context of the range of proposed mitigation measures. Notwithstanding, the Applicant remains open to further discussions in the event of surrounding developments proceeding.
- 5.30 A condition requiring the preparation of a VMP and NSP and participation in the FTRAG have been attached to the s.36 Consent and OfTI Marine Licence, which will address these concerns.
- 5.31 Inch Cape Offshore Limited ("ICOL") stated the approach taken by the Applicant to the cumulative assessment of seascape, landscape and visual impacts differs from the approach advised by SNH and Marine Scotland. ICOL also highlighted the approach taken by the Applicant in classifying the area as an area of open sea. ICOL recognised the difficulties encountered by the Applicant when preparing night time visualisations and noted that it would be beneficial for further strategic discussions regarding the preparation of night time visuals to assist with future applications.
- 5.32 ICOL highlighted that the fisheries datasets used to support the commercial fisheries assessment undertaken by the Applicant differ, thus resulting in the reporting of different effects by both ICOL and the Applicant in their respective EIA Reports. ICOL stated its belief that the Applicant has overestimated the potential impacts on potting vessels and provided details of other datasets

which could provide useful context when assessing the potential impacts on commercial fisheries. Further, ICOL stated that, in its opinion, the Applicant has overestimated the impacts on creelers as a result of displacement of nephrops vessels during the cable installation.

- 5.33 ICOL further stated that the definitions of sensitivity used in the marine mammal assessment, when considering the impacts of pile driving noise, has resulted in the reporting of reduced impacts for all species of marine mammals (other than bottlenose dolphin and harbour seal). ICOL also note the use of NOAA criteria alone,<sup>1</sup> without the use of Southall<sup>2</sup> criteria to provide context, as advised at scoping, may have an impact on the numbers of animals reported as being likely to be impacted. ICOL further highlighted that the use of the uncorrected code when running the iPCoD model will have influence on the reported outputs. Further, ICOL noted that the summary data from the Brandt et al (2016)<sup>3</sup> dose response curve has been utilised and stated that, therefore, the results will be less conservative than the data available from the Beatrice Offshore Wind Farm development.
- 5.34 Regarding ornithology, ICOL noted that the EIA Report does not provide clear detail on how effects have been apportioned amongst SPA and non-SPA colonies. ICOL believes that the assessment has been carried out in such a way that the impacts on SPA populations may have been overestimated.
- 5.35 ICOL further noted that a differing approach had been taken by the Applicant to the consideration of the Transponder Mandatory Zone (“TMZ”) and should any improved technical mitigation measures be identified and implemented, they must be cost effective, time bound and subject to the usual Ministry of Defence approach to mitigation measures.
- 5.36 Further consultation has taken place with SNH regarding the ornithology and marine mammal issues identified and conditions have been attached to the s.36 Consent which require the Applicant to participate in the FTRAG and CFWG, which will help to address the issues raised above.
- 5.37 Ministry of Defence (“MOD”) objected to the application, citing unacceptable interference to the Air Traffic Control (“ATC”) radar used by Leuchars Airfield (as radar may be desensitised due to the proximity of the Project). Furthermore, the MOD noted that the Project would adversely affect the frequency of the provision of Traffic Service and Deconfliction Service in the vicinity of the

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<sup>1</sup> NOAA (2016) Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts. (U.S. Dept. of Commer., NOAA. NOAA Technical Memorandum NMFS-OPR-55, 178 p. National Marine Fisheries Service).

<sup>2</sup> Southall, B., Bowles, A., Ellison, W., Finneran, J., Gentry, Ro., Greene Jr., C., Kastak, D., Ketten, D., Miller, J., Nachtigall, P., Richardson, W., Thomas, J. and Tyack, P. (2007). Marine Mammal Noise Exposure Criteria: Initial Scientific recommendations. (Aquatic Mammals. 33(4): 411-521).

<sup>3</sup> Brandt et al. (2016) Effects of offshore pile driving on harbour porpoise abundance in the German Bight. Assessment of Noise Effects. Final Report. Prepared for Offshore Forum Windenergie. Available at: <http://bioconsult-sh.de/site/assets/files/1573/1573.pdf> (Last accessed 01/11/2018)

proposed wind farm, air traffic density in the vicinity of the proposed windfarm, the performance of the radar, the complexity of the ATC task, the workload of controllers and the position of the Project in relation to handover points.

- 5.38 MOD highlighted that the agreement to the TMZ as a mitigation measure for the 2014 Project was a temporary measure. MOD highlighted that it requires an enduring technical solution to mitigate potential impacts. MOD stated that it would welcome clarification from the Applicant regarding any potential mitigation measures for the Project.
- 5.39 MOD also objected on grounds of unacceptable interference to the Air Defence (“AD”) radar at both Remote Radar Head (“RRH”) Brizlee Wood and RRH Buchan, due to detectability of turbines. Further, visibility of the turbines at both locations would exceed the cumulative effect thresholds.
- 5.40 MOD advised that research into technical mitigation solutions is currently ongoing and the Applicant may wish to investigate these further. MOD requested that the turbines are fitted with aviation lighting in accordance with Article 219 of the Air Navigation Order, should the stated issues be overcome.
- 5.41 Following further discussion with the Applicant, MOD removed its outstanding objections on 20 August 2018 in relation to interference at RRH Brizlee Wood and RRH Buchan Air Defence radar. MOD advised that the impacts on the ATC radar at Leuchars Airfield could be effectively mitigated through the preparation and implementation of an Air Traffic Control Radar Mitigation Scheme.
- 5.42 Conditions requiring the Applicant to prepare, consult on and adhere to an Air Traffic Control Radar Mitigation Scheme (“ATC Scheme”) and LMP have been attached to the s.36 Consent to mitigate these concerns. Conditions have been attached to the OWF Marine Licence and OfTI Marine Licence to ensure that the Works are marked and lit in accordance in MoD requirements at all times.
- 5.43 NATS Safeguarding (“NATS”) advised that the Project does not conflict with its safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company had no safeguarding objection to the proposal.
- 5.44 River Tweed Commission (“RTC”) advised that the EIA Report has not taken into account the large number of east coast salmon which travel across the North Sea in line with south Northumberland, and then travel northwards up the east coast to reach their Scottish natal rivers.
- 5.45 RTC advised that salmon passing through the Site are vulnerable to seal predation and new information has shown that the bases of wind turbines can act as artificial reefs, attracting and thus altering the foraging patterns of seals. RTC considered that the influence of underwater structures on predation of salmon migration has not been fully considered in the EIA Report.
- 5.46 RTC considered that some compensatory support should be given to those rivers which will suffer as a consequence of greater predation on returning stocks, should further data support that this is the case.

- 5.47 A response from the Applicant, along with MSS comments on consultation responses relating to diadromous fish were forwarded to RTC. RTC subsequently confirmed that the information provided by the Applicant does not alter its opinion regarding potential impacts on seal predation and its request for further monitoring of potential impacts on salmon.
- 5.48 Conditions have been attached to the s.36 Consent, the OfTI Marine Licence and the OWF Marine Licence which will implement the commitments outlined in the EIA Report, including the requirement for the PEMP, EMP, PS and to participate in the FTRAG.
- 5.49 Royal Society for the Protection of Birds Scotland (“RSPB Scotland”) submitted an objection to the application and stated that it strongly disagrees with the conclusions reported in the EIA Report. RSPB Scotland stated that the impacts of the worst-case in-combination scenario, as presented in the EIA Report, are wholly unacceptable and would result in significant and irreversible impacts to the region’s seabird populations (particularly northern gannet, black-legged kittiwake, Atlantic puffin, razorbill and common guillemot).
- 5.50 RSPB Scotland recognised that the reported impacts represent a reduction in the impacts reported for the as-consented Forth and Tay Developments (both in isolation and in-combination). RSPB Scotland, however, state that the impacts reported in the EIA Report remain significant and will result in adverse effects on the site integrity of the relevant SPAs (in particular in respect of the kittiwake qualifying interest of the Fowlsheugh SPA and Firth of Forth SPA). RSPB Scotland provided detailed comments on the methods and outputs of the assessment and stated that it was not possible, based on the information provided, to reach a full description and conclusion of the likely significant effects of the Project.
- 5.51 RSPB Scotland also raised concerns regarding the absence of any mitigation or offsetting measures within the EIA Report and stated, that should any consent be granted, a strategic approach should be taken to the aim of the delivering maximum generating capacity for least environmental effect.
- 5.52 A response from the Applicant was forwarded to RSPB Scotland. RSPB Scotland subsequently confirmed that the information provided did not alter its position. RSPB Scotland stated the scale of impacts are a limiting factor to the Project and, on receipt of the 2018 applications for the Inch Cape, Seagreen Alpha and Seagreen Bravo offshore wind farms, RSPB Scotland will consider its position further.
- 5.53 RSPB Scotland submitted a response to the EIA Addendum and maintained its objection to the application. RSPB Scotland provided detailed comment on discrepancies identified within the information provided, in particular the revised assessment of the in-combination impacts on the razorbill and guillemot qualifying interests of the Fowlsheugh SPA and Forth Islands SPA. RSPB Scotland disagree that the information provided within the EIA Addendum does not alter the significance of the effects and stated that the information provided in the EIA Addendum added further weight to its initial concerns.

- 5.54 Conditions have been attached to the s.36 Consent and OfTI Marine Licence requiring the Applicant to prepare, consult on and adhere to the PEMP and to participate in the FTRAG and the Scottish Marine Energy Research (“ScotMER”) programme,<sup>4</sup> to contribute to improved understanding of the impacts of the Works, both in isolation and in-combination, on seabird populations.
- 5.55 Royal Yachting Association Scotland (“RYA”) agreed with the points raised in chapter 11 of the EIA Report in relation to recreational vessels. RYA advised that it is likely that approximately four times the amount recreational vessels may be present in the Site when compared to the number presented via Automatic Identification System (“AIS”) data. RYA, however, advised that this difference would not alter the reported effects.
- 5.56 Seagreen Wind Energy Limited (“Seagreen”) commented that the cumulative assessments for all receptors do not take account of the updated design envelope for the Seagreen Alpha and Seagreen Bravo offshore wind farms (“the Seagreen project”). Further, Seagreen advised that there are differences in the underlying data used to support some of the assessments which will result in differing outputs. Seagreen highlighted a discrepancy in the marine mammal assessment which predicts up to 97 harbour porpoise will be exposed to Permanent Threshold Shift (“PTS”). Seagreen’s assessment predicts that no harbour porpoise will be exposed to PTS. Seagreen further advised that its predicted disturbance numbers for some marine mammal species are significantly lower than those predicted by the Applicant.
- 5.57 Seagreen also raised concerns regarding the effects estimated by the Applicant on the displacement and collision impacts from the Seagreen project and how these were apportioned.
- 5.58 Information from other sources has been used by the Scottish Ministers to inform the AA for marine mammals and seabirds for the in-combination assessment with the Seagreen development.
- 5.59 Scottish Fishermen’s Federation (“SFF”) submitted an objection to the application. SFF objected to statements made within the EIA Report regarding decommissioning (including the proposal that the subsea structures and cables are to be left in situ), the use of the term “overfishing” (and the negative implications of this term) and the projected timescale for the installation of the OEC, which SFF stated was unrealistic and therefore, the impacts on fishing activities during the installation period had not been fully considered. SFF further advised that, in its experience, fishing would not automatically resume following completion of construction phase of the Project and, therefore, monitoring of the real time impacts and consideration of mitigation/compensation measures, particularly for the nephrops fleet, is required.

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<sup>4</sup> Scottish Marine Energy Research webpage:  
<https://www2.gov.scot/Topics/marine/marineenergy/mre/research> (Last accessed: 08/11/2018)

- 5.60 SFF advised that it expects the scallop industry to be compensated, due to implications that continuous closures may take place over the three years of construction. The SFF advised that it considers the Applicant has insufficient understanding that mobile and static fisheries and mobile fishing operations may be seriously restricted post-construction. SFF highlighted that disturbance payments are intended for specific vessels and, therefore, do not replace the need to mitigate the impacts on the wider fleet and onshore fisheries supply chains (including potential impacts on food security) arising from the Project.
- 5.61 SFF requested to be consulted on all relevant plans to include the Commercial Fisheries Management Plan ("CFMS" now known as the FMMS), CaP, require the Applicant to participate in the FTCTFWG and to be involved in the monitoring of the impacts of the Project on commercial fisheries receptors.
- 5.62 A response from the Applicant was forwarded to SFF addressing the comments detailed above. The Applicant stated that arrangements for decommissioning would be addressed through the development of a DP post-consent and SFF advised that this measure would satisfactorily address its concerns.
- 5.63 The Applicant stated that ongoing monitoring of specific target groups will be undertaken through the PEMP as appropriate. The Applicant advised that the local fishing community will be kept informed of cable installation Works and stated a commitment to ensuring the OEC is safe and available for fishing as soon as reasonably practicable. The SFF advised it expects displaced vessels of all metiers to be compensated in some way, and that the monitoring of commercial species across the Site, including the OEC route, will go some way to address this.
- 5.64 SFF stated that the Applicant's response regarding continuation of scallop fishing during the operational phase of the Project does not accurately reflect the impacts of displacement. SFF emphasised that monitoring of commercial species, including Scallops, is essential to measure the impacts on this receptor. SFF stated that the Applicant should invest in trials with real fishing vessels to prove the proposition that safe fishing can occur within the Site.
- 5.65 SFF maintained that the embedded mitigation included within the EIA Report is not intended to mitigate the impacts on fisheries receptors, but rather to mitigate health and safety concerns. SFF stated that the information and response provided by the Applicant does not reflect the need for the CFMS (now known as the FMMS) to be agreed by the FTCTFWG. Further still, SFF stated that the response provided did not consider the potential impacts on scallop and nephrops fisheries and therefore, monitoring and compensation measures for these receptors require further consideration. SFF stated that the EIA Report did not include consideration of the potential negative socio-economic impacts resulting from impacts on commercial fisheries receptors.
- 5.66 Conditions have been attached to the s.36 Consent, the OfTI Marine Licence and the OWF Marine Licence which require the Applicant to prepare, consult on and adhere to the terms of a DP and CaP. Further, the Applicant will be required to prepare and deliver a PEMP to monitor the impacts of the Project on a range of receptors, including commercial fisheries receptors. The Applicant is required to prepare, consult on and adhere to the terms of a FMMS

and VMP (including a fishing gear De-Confliction Notice) . The SFF will be consulted on all relevant post-consent plans.

- 5.67 Sportscotland (“SS”) had no comments to make on the application.
- 5.68 Scottish Seabird Centre (“SSC”) raised concerns regarding potential seabird fatalities in an area of international significance for seabird colonies and where wildlife tourism has become established as an important factor in the local economy, delivering important socio-economic benefits.
- 5.69 A response from the Applicant was forwarded to SSC. SSC welcomed the actions being taken to reduce the potential detrimental environmental impacts of the Project and that the Applicant will continue to consult with Marine Scotland, SNH and RSPB Scotland in order to prepare the PEMP.
- 5.70 SSC reiterated its concerns regarding seabird fatalities and the need to minimise detrimental environmental impacts, whilst identifying and delivering positive outcomes for the marine environment and wildlife, wherever possible.
- 5.71 Conditions have been attached to the s.36 Consent and OfTI Marine Licence requiring the Applicant to prepare, consult on and adhere to the PEMP and to participate in the FTRAG and ScotMER programme, to contribute to improved understanding of the impacts of the Works, both in isolation and in-combination, on seabird populations.
- 5.72 Tay District Salmon Fishery Board (“Tay DSFB”) submitted an objection to the application. Tay DSFB raised concerns regarding potential negative impacts on Atlantic salmon and sea trout arising from the Project. Tay DSFB expressed its support for the consultation response submitted by FMS.
- 5.73 Tay DSFB requested that, should any regulatory approval be granted, conditions should be attached regarding monitoring and mitigation measures and expressed its willingness to participate in the development of such measures. Tay DSFB state that it will maintain its objection until an agreed and accepted monitoring and mitigation strategy is produced
- 5.74 A response from the Applicant, along with MSS comments on consultation responses relating to diadromous fish were forwarded to Tay DSFB. No subsequent response was received from Tay DSFB.
- 5.75 Conditions have been attached to the s.36 Consent and OfTI Marine Licence which will implement the commitment to participate in the FTRAG, as outlined in the EIA Report and include the requirement to prepare, consult on and implement the PEMP.
- 5.76 Transport Scotland (“TS”) advised that conditions, requiring the preparation and approval of a Construction Traffic Management Plan (“CTMP”) and Traffic and Transportation Plan (“TTP”) should be considered for any regulatory approval granted to mitigate potential impacts on the trunk road network and any impacts arising from road based traffic and transportation associated with the Project.

- 5.77 TS noted that no access, traffic and transport section had been included within the EIA Report. However, TS acknowledged that the EIA Report states that this information has not been included as no port has been selected. TS therefore consider it reasonable that the TTP is not prepared until the port/ports has/have been selected.
- 5.78 TS noted that the EIA Report states that traffic, transport and access matters relating to onshore Works are dealt with under the onshore planning regime. TS stated that the requirements and conditions included in any associated onshore planning permission should be considered during the preparation of the TTP.
- 5.79 A condition has been attached to the s.36 Consent requiring the Applicant to prepare, consult on and adhere to a CTMP to mitigate the impacts identified. This plan also incorporates the TTP requirements.
- 5.80 Whale and Dolphin Conservation (“WDC”) advised that it had concerns about the impacts of the Project, both in isolation and in-combination with other developments, on cetaceans, in particular harbour porpoise.
- 5.81 WDC reiterated its serious concerns regarding the current levels of scientific uncertainty regarding the impacts, and potential negative impacts, which renewable energy developments, both individually and cumulatively, may have on cetaceans and seals within Scottish waters.
- 5.82 WDC strongly urged that the Applicant considers alternative methods to pile driving, however, if pile driving is to be utilised, WDC stated that there should be a commitment to noise mitigation and monitoring during the entirety of the construction phase to assess if the conclusions of the noise modelling assessment reported in the EIA Report are accurate. WDC further stated that pre-construction monitoring should be undertaken. WDC encourage further consideration of the noise abatement technologies recommended in Faulkner et al. (2018)<sup>5</sup> to mitigate the impacts of underwater noise.
- 5.83 WDC stated that marine mammal observers (“MMO”) and passive acoustic monitoring (“PAM”) should be utilised throughout the construction phase as mitigation. WDC recognised the use of soft-start as a sensible mitigation measure and requested that the use of the soft-start procedure should be monitored to establish its effectiveness.
- 5.84 WDC strongly urged that Acoustic Deterrent Devices (“ADD”) are not utilised, due to its concerns regarding the impacts of the additional noise generated on harbour porpoise and other species. WDC stated that an European Protected Species (“EPS”) licence would be required if ADD were to be utilised.
- 5.85 WDC requested to be involved in the development of the PS, VMP, EMP and PEMP and other such post-consent plans.

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<sup>5</sup> Faulkner, R.C., Farcas, A. and Merchant, N.D. 2018. *Guiding principles for assessing the impact of underwater noise*. Journal of Applied Ecology 1-6. DOI: 10.1111/1365-2664.13161

- 5.86 A response from the Applicant was forwarded to WDC addressing the comments detailed above. No subsequent response was received from WDC.
- 5.87 Conditions have been attached to the s.36 Consent, the OfTI Marine Licence and the OWF Marine Licence requiring that the Applicant prepare, consult on and adhere to a PS, VMP, EMP and PEMP (which includes the requirement to monitor marine mammals). Conditions have been attached to the s.36 Consent requiring the Applicant to participate in the FTRAG.

## **6 Representations from other organisations and members of the public**

- 6.1 Four public representations were received, all of which objected to the application.
- 6.2 One public representation felt that the Project required much larger public awareness and publicity in East Lothian, Fife and the Scottish Borders and that any positive economic impacts would not benefit East Lothian.
- 6.3 Two of the public representations objected on the grounds of adverse impacts to visual amenity, citing adverse effects on the views to sea from viewpoints in East Lothian and Fife, with attendant impacts on the tourism industry.
- 6.4 The fourth public representation objected on the basis that the Project has the potential to damage the ecosystem and food stocks in the Firth of Forth and bird breeding sites at the Bass Rock and Isle of May and that this would exceed the community benefits of the energy generated by the Works.
- 6.5 The information has been passed to the Applicant. The points raised are not considered to be determinative, but have been taken into consideration in the final decision.

## **7 Advice from 3<sup>rd</sup> Parties**

- 7.1 Marine Scotland Licensing Operations Team (“MS-LOT”) sought advice from MSS on the application, EIA Addendum and on consultation responses. MSS provided advice as follows and also provided expertise in completing the AA.

### Marine mammals

- 7.2 MSS recognised the precaution in the marine mammal assessment and also the issues identified with the version of the iPCoD model used to inform the assessment.
- 7.3 MSS took part in a workshop with SNH on 7 September 2018 to agree a set of scenarios to run through the revised version of iPCoD for bottlenose dolphin and grey seal, and reviewed the report provided by SNH. MSS concurred with the SNH advice that the Project, in-combination with the Forth and Tay Developments (and in the case of bottlenose dolphin with the Moray Firth wind farms and AHEP), would not adversely affect the integrity of the SACs concerned.

- 7.4 MSS agreed with the mitigation measures outlined in the SNH response of 11 May 2018.

#### Ornithology

- 7.5 MSS raised several queries following their consideration of the ornithology chapter of the EIA Report, the HRA Report and the relevant appendices. MSS highlighted inconsistencies in the information provided by the Applicant. This, along with the concerns raised by SNH led to the Applicant submitting an EIA Addendum.
- 7.6 MSS advised that there is increasing evidence to suggest that kittiwake may be less susceptible to displacement than originally thought, with SNH advising that displacement of kittiwake did not need to be considered by the Applicant. The displacement rate of 30% assumed for kittiwake is therefore likely to be overly precautionary.
- 7.7 In its advice, MSS highlighted the new Seabird Offshore Renewable Development (“SeabORD”) tool for estimating displacement effects.<sup>6</sup> This tool was not available at the time the application was submitted, and MSS advised that it may be some time before it can be used in casework as there are a number of ways in which it can be applied and agreement will need to be reached by the relevant parties.
- 7.8 MSS advised that displacement effects using the matrix approach as advised in the scoping opinion are less than those estimated in 2014 when the Searle et al 2014 model was used.<sup>7</sup> Preliminary examination of SeabORD also suggests however that using the “shortest route method” the displacement effects would be less than those estimated in 2014.

#### Commercial Fisheries

- 7.9 MSS reviewed the application and the SFF response. MSS considered that the SFF suggestion of a monitoring programme for validating impacts on commercial fisheries was appropriate, in particular this would help inform the impacts on scallop dredgers and concerns raised by the SFF that the Site would be incompatible with scallop dredging even after construction.
- 7.10 MSS advised that the Applicant should provide clarity on the installation time for their cables. MSS advised that over-trawlability surveys would help inform whether it is safe for trawling to recommence along the cable route once installation is complete. However these may not be required if the Applicant can

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<sup>6</sup> SeaBORD: A tool to estimate the fate of birds displaced by offshore renewable developments. Available here:

<https://www2.gov.scot/Topics/marine/marineenergy/mre/current/SeabORD> (Last accessed 01/11/2018)

<sup>7</sup> Searle, K., Mobbs, D., Butler, A., Bogdanova, M., Freeman, S., Wanless, S. & Daunt, F. (2014) Population consequences of displacement from proposed offshore wind energy developments for seabirds breeding at Scottish SPAs (CR/2012/03). (Final Report to Marine Scotland Science).

provide evidence that the installation of the cables has not left any fishing hazards.

### Diadromous Fish

- 7.11 The scoping opinion advised that the Applicant should review the updated published information relating to the behaviour of diadromous fish to ensure that the conclusions of no significant effects in relation to the Original Consent remain valid. The justification to scope out diadromous fish from the EIA was provided by the Applicant in Appendix 7.2 of the EIA Report. Despite the receptor being scoped out concerns were raised through the consultation by several bodies.
- 7.12 Concerns were raised by consultees relating to the unknown effects of wind farms on diadromous species and lack of knowledge on migration routes. MSS advised that there has been substantial progress in research relating to movement, abundance, swimming depth, feeding behaviour etc. of salmon and sea trout. In general concerns about actual impacts caused by wind farm developments have been reduced.
- 7.13 MSS confirmed that salmon smolts and adults are likely to pass through the Site and that sea trout will also occur in the area. MSS advised that information on the likely distribution of sea trout, is currently lagging behind salmon smolts and adults, although there has again been progress on many topics.
- 7.14 MSS advised that turbine bases can provide shelter and potentially new feeding opportunities which might concentrate potential prey fish and / or predators under some situations. However, MSS is not aware of any evidence to date that migrating smolts or adult salmon gather at turbine bases. The view of MSS is that smolts or adult salmon while they were still offshore will be actively migrating and following cues taking them away from foundation bases. Therefore MSS does not consider that concerns raised by consultees that salmon may be more at risk from predation in the Site to be a major issue.

### Socio-economics

- 7.15 The MSS Marine Analytical Unit (“MAU”) reviewed the application and EIA Report and found that the general methodological approach was sound and accounted for uncertainty about the economic content of the Project that will be realised in Scotland or in the local study area.
- 7.16 MAU raised some points regarding the economic multipliers that had been used and advised that as UK input/output tables had been used this could overstate or understate the indirect impact in Scotland.
- 7.17 MAU advised that as the displacement of other economic activity had not been assessed this could overstate the economic (GVA and employment) impacts of the Project.
- 7.18 MAU advised that socioeconomic analysis is exclusively focused on economic outcomes and does not consider potential impacts on social variables like – health, education, access to services, housing and crime.

7.19 The Scottish Ministers have considered the advice provided by MSS in reaching their decision.

## **8 Public Local Inquiry (“PLI”)**

8.1 The Scottish Ministers did not require PLI to be held.

## **9 The Scottish Ministers Considerations**

### **Environmental Matters**

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

9.2 The Scottish Ministers are satisfied that the Applicant, when formulating its proposal to construct the Works, had regard to the desirability of preserving natural beauty, of conserving flora, fauna, and geological and physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic, or archaeological interest.

9.3 The Scottish Ministers have had regard to the desirability of the matters mentioned in the previous paragraph and the extent to which the Applicant has done what it reasonably could to mitigate the effects of the Works on those features, and are satisfied that the Applicant has done what it reasonably could with regard to mitigation.

9.4 The Scottish Ministers have considered fully and carefully the application, EIA Report, HRA Report, the EIA Addendum, all relevant responses from consultees, MSS and third party representations received.

### **Main Determinative Issues**

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

- The extent to which the Project accords with and is supported by Scottish Government policy and the terms of the NMP and relevant local development plans;
- Renewable energy generation and associated policy benefits;
- Economic impacts;
- The significant effects of the Project on the environment, which are in summary:
  - Impacts on marine mammals and seabirds including impacts on European sites and European offshore marine sites;

- Impacts on diadromous fish;
  - Impacts on commercial fisheries;
  - Impacts on cultural heritage;
  - Impacts on seascape, landscape and visual amenity; and
  - Impacts on aviation and defence.
- Renewable energy generation and associated policy benefits; and
  - Economic benefits.

### **Scottish Government Policy Context**

- 9.6 The NMP, formally adopted in 2015, and recently reviewed in Spring 2018, provides a comprehensive statutory planning framework for all activities out to 200 nm. Scottish Ministers must take authorisation and enforcement decisions, which affect the marine environment, in accordance with the NMP.
- 9.7 Of particular relevance to this proposal are:
- Chapter 4 policies ‘GEN 1-21’, which guide all development proposals;
  - Chapter 6 Sea Fisheries, policies ‘FISHERIES 1-3’;
  - Chapter 8 Wild Salmon and Diadromous Fish, policies ‘WILD FISH 1 and 3’;
  - Chapter 11 Offshore Wind and Marine Renewable Energy, policies ‘RENEWABLES 1, 3-10’;
  - Chapter 12 Recreation and Tourism, policies ‘REC & TOURISM 2 and 6’;
  - Chapter 13 Shipping, Ports, Harbours and Ferries, policies ‘TRANSPORT 1 and 6’;
  - Chapter 14 Submarine Cables, policies ‘CABLES 1, 2 and 5’; and
  - Chapter 15 Defence, policy ‘DEFENCE 1’.
- 9.8 The Works will contribute to Scotland’s renewable energy targets and will provide wider benefits to the offshore wind industry which are reflected within Scotland’s Offshore Wind Route Map and the National Renewables Infrastructure Plan. Offshore wind is seen as an integral element in Scotland’s contribution towards action on climate change. The development of offshore wind also represents one of the biggest opportunities for sustainable economic growth in Scotland for a generation. Scotland’s ports and harbours present viable locations to service the associated construction and maintenance activities for offshore renewable energy.
- 9.9 Scottish Planning Policy 2014 (“SPP”) sets out Scottish Government’s planning policy on renewable energy development. Efficient supply of low carbon and low cost heat and generation of heat and electricity from renewable energy sources are vital to reducing greenhouse gas emissions and can create significant opportunities for communities. Renewable energy also presents a significant opportunity for associated development, investment and growth of the supply chain, particularly for ports and harbours identified in the National Renewables Infrastructure Plan. Communities can also gain new opportunities from increased local ownership and associated benefits.

- 9.10 Whilst the SPP makes clear that the criteria against which applications should be assessed will vary depending upon the scale of the development and its relationship to the characteristics of the surrounding area, it states that these are likely to include impacts on landscapes and the historic environment, ecology (including birds, mammals and fish), biodiversity and nature conservation; the water environment; communities; aviation; telecommunications; noise; shadow flicker and any cumulative impacts that are likely to arise. It also makes clear that the scope for the development to contribute to national or local economic development should be a material consideration when considering an application.
- 9.11 Scotland's National Planning Framework 3 ("NPF3") sets out the ambition for Scotland to move towards a low carbon country, placing emphasis on the development of onshore and offshore renewable energy. NPF3 recognises the significant wind resource available in Scotland, and reflects targets to meet at least 30% of overall energy demand from renewable sources by 2020 including generating the equivalent of at least 100% of gross electricity consumption from renewables with an interim target of 50% by 2015. It also identifies targets to source 11% of heat demand and 10% of transport fuels from renewable sources by 2020.
- 9.12 NPF3 aims for Scotland to be a world leader in offshore renewable development and expects that, in time, the pace of onshore wind Works will be overtaken by the development of marine energy including wind, wave and tidal.

### **Impacts of the Project and Works on the environment**

#### ***Impacts on marine mammals, seabirds and European protected sites and European offshore marine sites***

- 9.13 The Habitats Regulations require the Scottish Ministers to consider whether the proposed 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 Habitats Regulations.
- 9.14 Owing to the view of SNH that the Project is likely to have a significant effect on the qualifying interests of Forth Islands SPA, Fowlsheugh SPA, St Abb's Head to Fast Castle SPA and Buchan Ness to Collieston SPA, Moray Firth SAC, Tay and Eden Estuary SAC, Berwickshire and North Northumberland Coast SAC and Isle of May SAC, and the Outer Firth of Forth and St Andrews Bay Complex pSPA, the Scottish Ministers, as the "competent authority", were required to carry out an AA.
- 9.15 For marine mammal species the main impact from the Project is from noise during construction due to piling operations, and in particular in-combination impacts with the other Forth and Tay Developments and wind farms in the Moray Firth.
- 9.16 For the SAC qualifying interests – bottlenose dolphin, grey seal and harbour seal, SNH advised that there would be no adverse effect on the integrity of the above SACs. The AA completed considered the conservation objectives, the populations at the sites, the predicted levels of effect and population

consequences, the fact that the effects are less than in those associated with the existing 2014 consent, the precaution in the assessment methods and the advice from SNH. The Scottish Ministers concluded that that the Project will, subject to the appliance of conditions, not adversely affect the site integrity of the Moray Firth SAC, Tay and Eden Estuary SAC, Berwickshire and North Northumberland Coast SAC and Isle of May SAC either alone or in-combination with the other projects. The AA provides detail on the noise propagation modelling and the population modelling undertaken to inform the assessment.

- 9.17 In addition to the SAC qualifying interests above, other cetaceans (which are also European protected species) could be affected by the Project, in particular harbour porpoise and minke whale. These species were considered in the EIA Report. SNH advised in their response date 11 May 2018, SNH advised that for both these species there would be no impact on favourable conservation status subject to conditions being attached to the consent.
- 9.18 WDC raised some concerns in relation to impacts on marine mammals from construction, particularly from pile driving. WDC requested to be consulted on relevant post consent plans to inform the mitigation further.
- 9.19 For bird species the main impacts come from either collision and/or displacement and barrier effects. SNH considered that there would be likely significant effect as follows:
- Forth Islands SPA – gannet, kittiwake, herring gull, puffin, guillemot and razorbill
  - Fowlsheugh SPA – kittiwake, herring gull, guillemot and razorbill
  - St Abb’s Head to Fast Castle SPA - kittiwake, herring gull, guillemot and razorbill
  - Buchan Ness to Collieston Coast SPA - kittiwake, herring gull, guillemot
  - Outer Firth of Forth and St Andrews Bay Complex pSPA - gannet, kittiwake, herring gull, puffin, guillemot, razorbill, little gull, common gull and black-headed gull.
- 9.20 Advice was received from SNH on 11 May 2018 and 7 September 2018, on the information provided by the Applicant, objecting to the Project due to SNH’s view that the Project in-combination with the existing 2014 consents for Inch Cape and Seagreen Alpha and Bravo offshore wind farms would lead to an adverse effect on the Forth Islands SPA with respect to gannet and kittiwake and an adverse effect on the site integrity of Fowlsheugh SPA with respect to kittiwake. SNH also raised concerns regarding the razorbill assessment methodology.
- 9.21 SNH did however advise that the impacts from the Project would be less than those associated with the Original Consent. A meeting was held between the Applicant, SNH, MS-LOT and MSS on 18 September 2018 to discuss the ornithology assessment and clarity was provided by the Applicant on the razorbill assessment.
- 9.22 As there were some inconsistencies in the information provided in the EIA Report, HRA Report and EIA Addendum in relation to ornithology, The Scottish

Ministers also used information from other sources to inform the AA, and therefore consulted SNH further.

- 9.23 SNH responded on 5 and 8 October 2018 and advised that their previous position in relation to kittiwake and gannet at Forth Islands SPA and Fowlsheugh SPA still stood. SNH advised that there would also be an adverse effect on the integrity of the Forth Islands SPA and Fowlsheugh SPA with respect to razorbill, and an adverse effect on St Abb's Head to Fast Castle SPA with respect to kittiwake from the Project in-combination with the existing 2014 consents for Inch Cape and Seagreen Alpha and Bravo offshore wind farms.
- 9.24 RSPB Scotland also objected to the application, both in isolation and in-combination with the other Forth and Tay Developments, due to unacceptable impacts on SPAs. RSPB Scotland did however recognise that the Project would have less impacts than the Original Consent. As the information used to inform the AA came from other sources, and not solely from information provided by the Applicant, this information was shared with RSPB Scotland on 10 October 2018.
- 9.25 The AA considered the conservation objectives, the populations at the sites, the predicted levels of effect and population consequences, the fact that the effects are less than in those associated with the existing 2014 consent, the precaution in the assessment methods and the advice from SNH. The Scottish Ministers concluded that that the Project will, subject to the appliance of conditions, not adversely affect the site integrity of the Forth Islands SPA, Fowlsheugh SPA, St Abb's Head to Fast Castle SPA and Buchan Ness to Collieston SPA either alone or in-combination with other projects. Full details of the assessment methodology is provided in the AA.
- 9.26 In reaching their conclusions in the AA Scottish Ministers have given considerable weight to SNH's advice. The methods advised by SNH through scoping, and additional information requested by SNH, have been fully incorporated into the assessment. As such, divergence from SNH advice is limited to differing conclusions for gannet at Forth Islands SPA, kittiwake at Forth Islands SPA, Fowlsheugh SPA, and St Abb's Head to Fast Castle SPA and razorbill at Forth Islands SPA and Fowlsheugh SPA. In reaching a different conclusion from SNH in the AA, Scottish Ministers note that SNH's advice on the level of impact being adverse to site integrity is a subjective opinion. In reaching their own conclusions, Scottish Ministers have taken proper account of the entire context of the AA, in particular its highly precautionary assumptions, which make it very unlikely the number of impacted individuals will be as large as the values presented in the AA. For these reasons Scottish Ministers consider the levels of assessed impact to be reasonable and are convinced there will be no adverse effect on site integrity of any of the SACs, SPAs or the pSPA considered in this AA.
- 9.27 In Scotland, the Scottish Ministers are currently in the process of identifying a suite of new marine SPAs. In 2014, advice was received from the Statutory Nature Conservation Bodies ("SNCBs") on the sites most suitable for designation and at this stage they became draft SPAs ("dSPAs"). Once the Scottish Ministers have agreed the case for a dSPA to be the subject of a public consultation, the proposal is given the status of proposed SPA ("pSPA") and

receives policy protection, which effectively puts such sites in the same position as designated sites, from that point forward until a decision on classification of the site is made. This policy protection for pSPAs is provided by Scottish Planning Policy (paragraph 210), the UK Marine Policy Statement (paragraph 3.1.3) and the National Marine Plan for Scotland (paragraph 4.45). The Outer Firth of Forth and St. Andrew's Bay Complex pSPA is currently at consultation and, therefore, included in the AA.

- 9.28 It is not a legal requirement under the Habitats Directive or the Habitats Regulations for the AA to assess the implications of the Project on the pSPA. The AA includes an assessment of implications upon this sites in accordance with domestic policy. The Scottish Ministers are also required to consider article 4(4) of Council Directive 2009/147/EC on the conservation of wild birds ("the Birds Directive") in respect of the pSPA. The considerations under article 4(4) of the Birds Directive are separate and distinct to the considerations which must be assessed under this Habitats Directive assessment but they are, nevertheless, set out within the AA.
- 9.29 SNH advised that the Project in-combination with the other Forth and Tay Developments would not adversely affect the integrity of the Outer Firth of Forth and St Andrews Bay pSPA. The completed AA came to the same conclusion.
- 9.30 Considering article 4(4) of the Birds Directive, the Scottish Ministers concluded that the Project will not cause pollution or deterioration of habitats and any disturbance will be negligible.
- 9.31 In accordance with regulation 50 of the Conservation (Natural Habitats, &c.) Regulations 1994, and regulation 65 of the Conservation of Habitats and Species Regulations 2017, the Scottish Ministers will, as soon as reasonably practicable following the formal designation of the pSPA, review their decision authorising the Project. If required this will include a supplementary AA being undertaken concerning the implications of the Project on the site as designated (as the site is currently a pSPAs the conservation objectives are currently in draft form, the conservation objectives are finalised at the point the site is designated). If the conservation objectives, site boundary and qualifying features do not change when the site becomes designated then a further AA may not be required as the effects of the Project have been fully considered in the current AA.
- 9.32 Conditions requiring the Applicant to prepare, consult on and adhere to a CMS, EMP, PS, VMP and PEMP have been attached to the s.36 Consent, the OfTI Marine Licence and the OWF Marine Licence.
- 9.33 Scottish Ministers consider that, having taken into account the information provided by the Applicant, the responses of the consultative bodies, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact of the Project on marine mammals, seabirds or European sites or European offshore marine sites which would require consent to be withheld.

#### Impacts on diadromous fish

- 9.34 In their scoping advice, SNH advised that diadromous fish should be scoped out of both EIA and HRA. During the scoping process, MSS advised that there was significant new information from recent research in relation to diadromous fish. Therefore the scoping opinion advised that the Applicant should review the updated published information relating to the behaviour of diadromous fish to ensure that the conclusions of no significant effects in relation to the original 2014 consent remain valid. The justification to scope out diadromous fish from the EIA was provided by the Applicant in Appendix 7.2 of the EIA Report. Despite the receptor being scoped out, objections were raised during the consultation by FMS, Esk DSFB and Tay DSFB. The objections related to the application not containing sufficient information to make an adequate assessment of the potential effect on salmonid populations. In addition, a lack of knowledge of the migratory routes of smolts (Atlantic salmon and sea trout) and the potential secondary impacts on increased predation of migratory fish by seals were highlighted as key concerns.
- 9.35 MSS advised that that there has been substantial progress in research relating to movement, abundance, swimming depth, feeding behaviour etc. of salmon and sea trout. In general concerns about actual impacts caused by wind farm developments have been reduced. MSS do not consider that concerns raised by consultees that salmon may be more at risk from predation in the Site to be a major issue.
- 9.36 Conditions requiring the Applicant to prepare, consult on and adhere to a PEMP, to include diadromous fish, have been attached to the s.36 Consent and OfTI Marine Licence to mitigate concerns.
- 9.37 The Scottish Ministers consider that, having taken into account the information provided by the Applicant, the responses of the consultative bodies, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact from the Project on diadromous fish which would require regulatory approval to be withheld.

#### Impacts on commercial fisheries

- 9.38 Moderate significant effects were identified by the Applicant on demersal trawlers and potters, however, with additional mitigation, the Applicant concluded that there would be no significant effects on commercial fisheries.
- 9.39 The SFF responded on behalf of the 500 plus fishing vessels in membership of its constituent associations objecting to the application. The SFF objected to certain aspects of the assessment, in particular in relation to the construction period for the cables and impacts on the industry from the closure of the Site for fishing during the 3 year construction period. SFF considered that impacts on the scallop fishery would be major, rather than minor as reported in the EIA Report. The SFF also raised concerns regarding the use of the Site for fishing post construction.
- 9.40 Conditions requiring the Applicant to prepare, consult on and adhere to a FMMS, CaP, VMP and PEMP, to include commercial fisheries, and to participate in the FTCFWG have been attached to the s.36 Consent and OfTI Marine Licence to mitigate these concerns.

- 9.41 The Scottish Ministers consider that, having taken into account the information provided by the Applicant, the responses of the consultative bodies, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact from the Project on commercial fisheries which would require regulatory approval to be withheld.

*Impacts on seascape, landscape and visual amenity*

- 9.42 Assessments were completed for the Project cumulatively with the existing Original Consents for the Inch Cape and Seagreen Alpha and Bravo offshore wind farms and also for the 2018 proposals for fewer, larger turbines. Moderate cumulative significant impacts were identified on the coastal character of east Fife and north-east East Lothian and south-east Angus. Moderate significant effects were identified from aviation and navigation lighting on coastal character and visual amenity. Major cumulative significant effects were identified on visual amenity where the Project and the Inch Cape offshore wind farm are viewed at close range. No objections were received from consultees in relation to these impacts.
- 9.43 SNH advised that the Project cumulatively with the 2018 proposals for Inch Cape and Seagreen Alpha and Bravo offshore wind farms results in the most severe effect, largely due to the increase in turbine height of the Inch Cape wind farm.
- 9.44 Angus Council considered that there would be significant impacts on landscape and seascape character, however, it did not consider these visual impacts to be unacceptable. Angus Council considered that the aviation and navigation lighting would have significant night seascape impacts.
- 9.45 East Lothian Council also considered that there would be significant adverse seascape and visual impacts from the Project and did not agree with the classification of the level of significance in certain instances, however East Lothian Council did not object. Two public representations objected to the Works on the grounds of adverse impacts to visual amenity, citing adverse effects on the views to sea from viewpoints in East Lothian and Fife, with attendant impacts on the tourism industry.
- 9.46 Conditions requiring the Applicant to prepare, consult on and adhere to a DSLP, DS and LMP have been attached to the s.36 Consent to mitigate concerns.
- 9.47 The Scottish Ministers consider that, having taken into account the information provided by the Applicant, the responses of the consultative bodies and the public representations, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact from the Project on seascape, landscape and visual amenity which would require regulatory approval to be withheld.

*Impacts on cultural heritage*

- 9.48 Moderate, adverse impacts on the setting of the Isle of May Priory were reported in the EIA Report. The Priory is a scheduled monument, located 16.5

km to the east of the Site. These impacts were not discussed in the responses received from consultees.

- 9.49 East Lothian Council provided specific comment on the reported effects of the Project on cultural heritage. East Lothian Council disagreed with the reporting of effects on Tantallon Castle and North Berwick Law as being of minor significance, stating that it considers these impacts to be of moderate significance. East Lothian Council provided further detailed comments on the assessment methodology utilised, which it stated would increase the potential impact of the Works upon the cultural heritage of East Lothian. East Lothian Council stated that the potential cumulative impacts of the Project would have a significant impact on cultural heritage, however, East Lothian Council did not object to the application on these grounds.
- 9.50 HES was content that the reported impacts of the Project did not raise issues of national significance and did not object to the Project. HES stated that the application should be considered further in accordance with national and local policy on Works affecting the historic environment. HES provided detailed comment on the assessment methodologies utilised and inconsistencies and gaps within the EIA Report, particularly in relation to the assessment of impacts on the setting of the Bell Rock Lighthouse, however, HES was content that the discrepancies identified do not raise issues of national significance or alter the conclusions of the assessment.
- 9.51 Angus Council concur with the conclusions of HES but highlighted limitations in the assessment of the impacts of navigation and aviation lighting on the setting of the Bell Rock Lighthouse.
- 9.52 One public representation raised issues of cultural heritage, in particular the potential impacts on the setting of the Bell Rock Lighthouse.
- 9.53 Conditions requiring the Applicant to prepare, consult on and adhere to a DSLP, DS and Marine Archaeology Reporting Protocol (“MARP”) have been attached to the s.36 Consent.
- 9.54 The Scottish Ministers consider that, having taken into account the information provided by the Applicant, the responses of the consultative bodies and the public representations, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact from the Project on cultural heritage which would require regulatory approval to be withheld.

#### Impacts on aviation and defence

- 9.55 The EIA Report reported major significant effects on military and aviation receptors, both in isolation and in-combination with other developments. MOD initially submitted an objection to the Project on safeguarding grounds, on the basis of unacceptable interference to the ADRs at RRHs Buchan and Brizlee Wood and the air traffic control radar at RAF Leuchars and potential subsequent impacts on air safety. MOD requested that further engagement take place with the Applicant to identify an enduring technical solution to mitigate impacts.

- 9.56 MOD requested that any WTGs are fitted with aviation lighting in accordance with Article 219 of the Air Navigation Order. Further requirements regarding aviation lighting were recommended by NLB and the requirements for aviation and navigation lighting will be implemented through consent conditions.
- 9.57 Further discussion is ongoing between the Applicant and the MOD to identify appropriate technical solutions to mitigate the impacts of the Project. MOD, however, are satisfied that the inclusion conditions requiring the preparation of and adherence to a PRMS and ADRMS will ensure that appropriate mitigation measures are implemented prior to and throughout the entire operational phase of the Project to mitigate potential impacts on RAF Leuchars.
- 9.58 Following further consideration, MOD subsequently withdrew its objections in relation to the ADRs at RRH Buchan and RRH Brizlee Wood. Further assessment identified that, due to the height of the WTGs and limited coverage, the WTGs are unlikely to be detected by the Brizlee Wood ADR. Further, current technical evidence does not identify the need for the application of any mitigation measures to address the potential impacts of the operational WTGs on RRH Buchan ADR, therefore the requirement for the PRMS is no longer required.
- 9.59 NATS had no safeguarding objection to the Works.
- 9.60 Conditions requiring the Applicant to prepare, consult on and adhere to a ATC Scheme, LMP, DSLP, DS, CMS and NSP have been attached to the s.36 Consent. Conditions requiring the Applicant to ensure that the Works are marked and lit in accordance with NLB, MCA, CAA and MoD requirements at all times have been attached to the OWF Marine Licence and OfTI Marine Licence.
- 9.61 The Scottish Ministers consider that, having taken into account the information provided by the Applicant, the responses of the consultative bodies, and having regard to the conditions attached, there are no outstanding concerns in relation to the impact from the Project on aviation and defence which would require regulatory approval to be withheld.

### **Renewable energy generation and associated policy benefits**

- 9.62 The key environmental benefit of the Project is to offset greenhouse gas (“GHG”) emissions that might otherwise be produced by other means of electricity generation. Over the lifetime of the Project, carbon emissions from fabrication, construction, operation and decommissioning will be offset by the net reduction in emissions through the low carbon wind energy technology.
- 9.63 There are multiple benefits associated with the Project, including:
- The reduction in emissions of carbon dioxide, nitrogen oxides, and sulphur dioxide during the operational phase equivalent to the annual emissions of carbon dioxide, nitrogen oxides, and sulphur dioxide from traditional thermal generation sources;
  - Improvements to the security of the UK’s domestic energy supply through increased energy generation;

- Reduction in the reliance on fossil fuels; and
- Providing a contribution towards the ambitious Scottish, UK and European Union renewable energy targets.

9.64 The proposed output of the generating station is around 450 MW (however, the exact value is dependent on the nominal capacity and number of wind turbine generators installed and cannot yet be confirmed). Based on the Scottish Government's published Renewable Electricity Output Calculator,<sup>8</sup> it is estimated that, depending on the fuel type displaced, 584,581 tonnes of carbon dioxide will be saved each year. In addition, it is estimated that the Project will generate enough electricity to meet the needs of the equivalent 290,560 Scottish households per year.

### **Economic benefits**

9.65 SPP advises that economic benefits are material issues which must be taken into account as part of the determination process. It also confirms the Scottish Ministers' aim of achieving a thriving renewables industry in Scotland. Further, national policy and strategies, such as NPF3 and The Scottish Energy Strategy: The future of energy in Scotland (Scottish Government, 2017), support the role of renewable energy Works in achieving socio-economics benefits and supporting the growth of the low carbon economy. The EIA Report reported that the Project would support the development of the domestic renewable energy industry and offset GHG emissions.

9.66 Whilst impacts on tourism were scoped out of the EIA Report, the Applicant assessed socio-economic impacts related to the offshore elements of the Project on the Local Study Area and across Scotland.

9.67 The Applicant reported that, whilst cumulative impacts are expected to be positive, it is not possible to confidently predict these at the present time due to uncertainties around factors such as overall costing and the geographical sourcing of goods and services. Further, it is not yet possible to accurately predict the effects of the decommissioning phase of the Project.

9.68 The Applicant estimated that construction of the Project would indirectly and directly support an average annual employment impact of between 300 full-time equivalent ("FTE") person years of employment per year under the lowest modelled socio-economic scenario to 3,295 FTEs under the highest impact scenario. Direct employment effects were predicted for a relatively small number of employment sectors, including; manufacturing and engineering, construction, transport and professional services sectors. Other sectors, including accommodation, food and beverage service activities and electric generation, transmission and distribution may also be impacted by the Project. The indirect effects would be spread across a much wider range of sectors.

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<sup>8</sup> <https://www.gov.scot/Topics/Statistics/Browse/Business/Energy/onlinetools/ElecCalc> (Last accessed: 01/11/2018)

- 9.69 During construction, the Project is expected to deliver GVA impact of between £79.7 million, under the low scenario, and up to £626.9 million under the highest impact scenario at a Scotland-wide level.
- 9.70 The Applicant assessed operations and maintenance scenarios across a range of impact scenarios. The Applicant estimated that during the operational and maintenance phase, the potential employment impact ranges from 155 FTE posts each year for the lowest impact scenario to 215 FTE posts each year for the highest impact scenario.
- 9.71 At a Scotland-wide level, GVA during the operational and maintenance phase is expected to range from £10.7 million, under the lowest impact scenario, to up to £17.0 million under highest impact scenario.
- 9.72 Fife Council, in its consultation response, advised that in terms of wider tourism benefit locally, the Project may provide new tourism potential through the creation of a new boat tour route up to and around the turbines, as has happened in other developments across the UK. Fife Council highlighted the potential for the private sector to create a visitor centre, linked to any boat tour(s), explaining the engineering process of offshore wind farm developments. Fife Council stated that the creation of potential boat tours may provide benefits for accommodation providers across the East Neuk and St Andrews area due to increased visitor numbers. Fife Council highlighted that there may be increased opportunities for existing harbours at Tayport, St Andrews, Crail and Anstruther etc. and that these harbours, where possible, should be encouraged to consider diversification.
- 9.73 In its consultation response the SFF stated that the EIA Report did not include consideration of the potential negative socio-economic impacts resulting from impacts on commercial fisheries receptors.
- 9.74 MAU advised that the methodology and approach was largely appropriate, however highlighted some issues with the assessment regarding the economic multipliers and the fact that displacement of other economic activity had not been assessed.
- 9.75 The Scottish Ministers consider that there is sufficient information regarding the socio-economic impacts of the Project to inform their decision.

## **10 The Scottish Ministers' Determination**

- 10.1 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.
- 10.2 Scottish Ministers have weighed the impacts of the proposed Project, and the degree to which these can be mitigated, against the economic and renewable energy benefits which would be realised. Ministers have undertaken this exercise in the context of national and local policies.

- 10.3 Scottish Ministers have considered the extent to which the Project accords with and is supported by Scottish Government policy, the terms of SPP, the NMP, local development plans and the environmental impacts of the Project, in particular: impacts on seabirds and marine mammals (including impacts on European sites and European offshore marine sites), impacts on diadromous fish, impacts on seascape, landscape and visual amenity, impacts on commercial fisheries, impacts on cultural heritage and impacts on aviation and defence. Scottish Ministers have also considered the estimated contribution made by the Project to reducing carbon dioxide emissions, and the socio-economic and renewable energy benefits of the Project.
- 10.4 The Scottish Ministers are satisfied that many of the environmental issues have been appropriately addressed by way of the design of the Project and mitigation, and that the issues which remain are, on balance, outweighed by the benefits of the Project. In particular the Scottish Ministers are satisfied that the proposal will not adversely affect the site integrity of the Forth Islands SPA, Fowlsheugh SPA, St Abb's Head to Fast Castle SPA, Buchan Ness to Collieston Coast SPA, Moray Firth SAC, Firth of Tay and Eden Estuary SAC, Berwickshire and North Northumberland Coast SAC, Isle of May SAC or the Outer Firth of Forth and St Andrews Bay Complex pSPA.
- 10.5 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.
- 10.6 In their consideration of the environmental impacts of the Project, Scottish Ministers have identified conditions to be attached to the s.36 Consent, OWF Marine Licence and OfTI Marine Licence to reduce and monitor environmental impacts. These include requirements for pre-construction, construction and operational monitoring of birds, marine mammals and diadromous fish. Further, conditions requiring the preparation of, consultation on and adherence to a CMS, EMP, OMP and VMP have been included to ensure appropriate environmental management of the Works and to take into account mitigation measures to protect the environment and other users of the marine area.
- 10.7 A condition has also been identified containing requirements for the appointment of an ECoW to monitor compliance with all environmental and nature conservation mitigation Works and working practices. The ECoW appointed will have powers to order a stop to any activity on site which in his or her reasonable opinion could lead to an incidence of noncompliance with the environmental and ecological conditions or a breach of environmental law.
- 10.8 Scottish Ministers have concluded that the Applicant has had regard to the potential interference of recognised sea lanes essential to international and national navigation. Any obstruction or danger to navigation has been addressed through specific consent conditions attached to the s.36 Consent, OWF Marine Licence and OfTI Marine Licence.
- 10.9 Scottish Ministers are satisfied, having regard to current knowledge and methods of assessment, that this reasoned conclusion, as required under the 2017 MW Regulations, is still up to date.

- 10.10 Subject to the conditions set out in Appendix 2, the Scottish Ministers **grant a marine licence**, under Part 4 the Marine (Scotland) Act 2010, to deposit, construct and operate the Neart na Gaoithe Offshore Wind Farm (as described in Appendix 2).
- 10.11 The embedded mitigation and any additional mitigation identified in the EIA Report has been incorporated into the conditions of this marine licence (and any marine licence or s.36 Consent granted in respect of the offshore generating station and offshore transmission infrastructure). The conditions also capture monitoring measures required under Regulation 24 of the 2017 MW Regulations.
- 10.12 In accordance with the 2017 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.
- 10.13 Copies of this letter have been sent to the public bodies consulted on the application including the relevant planning authorities, SNH, SEPA and HES. This letter has also been published on the [Marine Scotland Information website](#).
- 10.14 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]

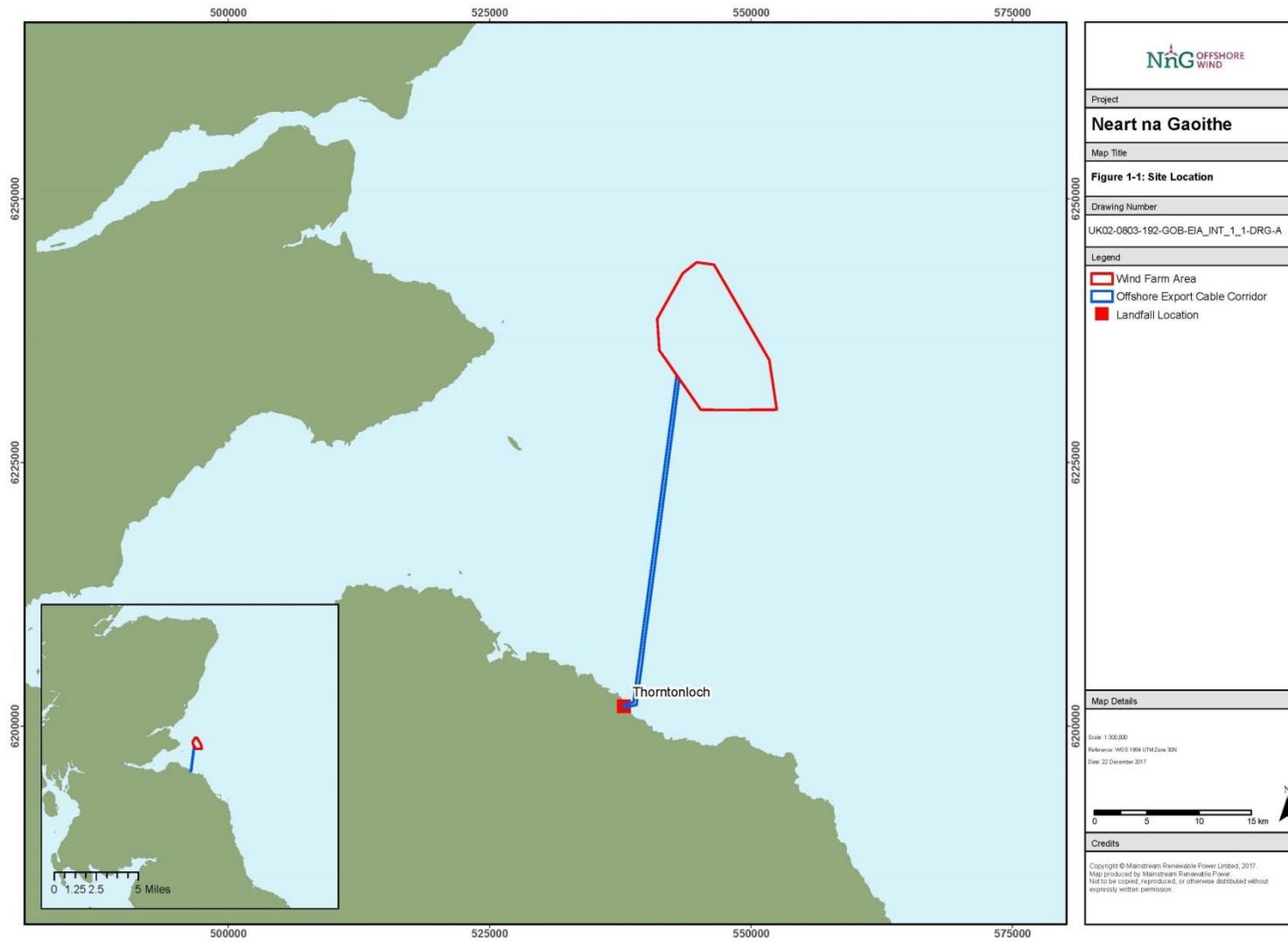
, Marine Scotland Licensing Operations Team

A member of the staff of the Scottish Ministers

3 December 2018

Appendix 1

Figure 1 Site location



## **General Conditions**

### **Compliance with the Application and approved plans**

The Licensee must at all times construct, operate and maintain the Works in accordance with this licence, the Application, the section 36 consent and the plans and programmes approved by the Licensing Authority.

**Reason:** *To ensure compliance with the marine licence, the Application and the approved plans and programmes.*

### **Licence conditions binding other parties**

All conditions attached to this licence bind any person who for the time being owns, occupies or enjoys any use of the Works for which this licence has been granted in relation to those Licensed Activities authorised under item 5 in section 21(1) of the 2010 Act whether or not this licence has been transferred to that person.

**Reason:** *To safeguard the obligations of the licence, in accordance with s.29(5) of the 2010 Act.*

### **Vessels, vehicles, agents, contractors and sub-contractors**

The Licensee must ensure that at least five days prior to its engagement in the Licensed Activities, the name and function of any vessel, agent, contractor or subcontractor appointed to engage in the Works and, where applicable, the master's name, vessel type, vessel IMO number and vessel owner or operating company are fully detailed in the Vessel Report. The Licensee must make the Vessel Reports and the Contractor Reports available on the Near na Gaoithe Offshore Wind Limited webpage: <https://nngoffshorewind.com/>.

Any changes to the supplied details must be uploaded to the Vessel Report and the Contractor Report and the Licensing Authority must be notified, in writing, prior to any vessel, agent, contractor or sub-contractor which has not yet been notified to the Licensing Authority engaging in the Licensed Activities.

Only those vessels, agents, contractors or sub-contractors detailed in the Vessel Report are permitted to carry out any part of the Works.

The Licensee must satisfy itself that any masters of vessels or vehicle operators, agents, contractors or sub-contractors are aware of the extent of the Licensed Activities and the conditions of this licence.

All masters of vessels or vehicle operators, agents, contractors and sub-contractors permitted to engage in the Works must abide by the conditions of this licence.

The Licensee must give a copy of this licence, and any subsequent variations made to this licence in accordance with section 30 of the 2010 Act, to the masters of any vessels, vehicle operators, agents, contractors or sub-contractors permitted to engage in the Works and must ensure that the licence and any such variations are read and understood by those persons.

**Reason:** *To ensure all parties involved in the Works are aware of the licence and its conditions to reduce the risk of a breach of the licence, in accordance with s.39(1)(b) of the 2010 Act.*

### **Force Majeure**

Should the Licensee or any of its agents, contractors or sub-contractors, by any reason of *force majeure* deposit anywhere in the marine environment any substance or object, then the Licensee must notify the Licensing Authority of the full details of the circumstances of the deposit within 48 hours of the incident occurring (failing which as soon as reasonably practicable after that period of 48 hours has elapsed).

*Force majeure* may be deemed to apply when, due to stress of weather or any other cause, the master of a vessel or vehicle operator determines that it is necessary to deposit the substance or object other than at the Site because the safety of human life or, as the case may be, the vessel, vehicle or marine structure is threatened. Under Annex II, Article 7 of the OSPAR, the Licensing Authority is obliged to immediately report force majeure incidents to the OSPAR Commission.

**Reason:** *To provide a defence for the Master to protect himself and his crew in bad weather conditions, in accordance with s.40 of the 2010 Act.*

### **Material alterations to the licence application**

If, after the granting of the licence, any information upon which the granting of this licence was based has altered in any material respect, the Licensee must notify the Licensing Authority of this fact in writing as soon as is practicable.

**Reason:** *To ensure that the Works are carried out in accordance with the Application documentation, in accordance with s.29(2)(a) of the 2010 Act.*

### **Submission of plans and specification of studies and surveys to the Licensing Authority**

The Licensee must submit plans and the details and specifications of all studies and surveys that are required to be undertaken under this licence in relation to the Works, in writing, to the Licensing Authority for its written approval. Commencement of the studies or surveys and implementation of plans must not occur until the Licensing Authority has given its written approval to the Licensee.

Plans or the specification of studies and surveys prepared pursuant to another consent or licence relating to the Works by the Licensee or by a third party may also be used to satisfy the requirements of this licence.

**Reason:** *To ensure that the Licensing Authority is kept informed of the progress of the Works, in accordance with s.29(3)(c) of the 2010 Act.*

### **Submission of reports and notifications to the Licensing Authority**

The Licensee must submit all reports and notifications to the Licensing Authority, in writing, as are required under this licence within the time periods specified in this licence. Where it would appear to the Licensee that there may be a delay in the submission of the reports or notifications to the Licensing Authority, then the Licensee must advise the Licensing Authority of this fact as soon as is practicable and no later than the time by which those reports or notifications ought to have been submitted to the Licensing Authority under the terms of this licence.

The reports must include executive summaries, assessments and conclusions and any data will, subject to any rules permitting non-disclosure, be made publically available by the Licensing Authority or by any such party appointed at its discretion.

Reports prepared pursuant to another consent or licence relating to the Works by the Licensee or by a third party may also be used to satisfy the requirements of this licence.

Such reports will include, but not be limited to a TAR, the Noise Registry, MMO records and all appropriate reports as stipulated with the PEMP.

**Reason:** *To ensure that all reports and notifications are submitted within a reasonable timescale after the licence is granted, in accordance with s.29(3)(c) of the 2010 Act.*

### **Chemical usage**

The Licensee must seek prior written approval from the Licensing Authority for any chemicals in an open system which are to be utilised in the construction, operation and maintenance of the Works. Requests for approval must be submitted in writing to the Licensing Authority no later than one month prior to its intended use or such other period as agreed by the Licensing Authority. The Licensee must ensure that no chemicals are used in an open system without the prior written approval of the Licensing Authority.

If the proposed chemical is on the OCNS list, the approval request must include the chemical name, volume or quantity to be used, the OCNS list grouping or rank and the proposed frequency of use.

If the proposed chemical is not on the OCNS list, the approval request must include details of chemical to be used, including safety data sheet, depth and current at the Site, quantities or volumes and the proposed frequency of use.

The Licensee must notify the Licensing Authority of the types of chemicals to be used in a closed containment system prior to use.

The Licensee should take all practicable steps to avoid leakages from a closed containment system into the Scottish marine area. Any such leakages must be reported to the Licensing Authority as soon as practicable.

**Reason: To minimise the environmental impact in the event of a release through the use of authorised chemicals in the interest of protecting the environment, in accordance with s.29(2)(b) of the 2010 Act.**

### **Fluorinated greenhouse gases**

The Licensee must ensure that all equipment to be utilised in the Works which contains fluorinated greenhouse gases (hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I of Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases (“F-Gas Regulation”) or mixtures containing any of those substances) must take precautions to prevent the unintentional release (‘leakage’) of those gases. The Licensee must take all measures which are technically and economically feasible to minimise leakage of fluorinated greenhouse gases.

Where leakage of fluorinated greenhouse gases is detected, the Licensee must ensure that the equipment is repaired without undue delay.

The Licensee must ensure that all equipment to be utilised in the Works that contains fluorinated greenhouse gases in quantities of 5 tonnes of CO<sub>2</sub> equivalent or more and not contained in foams is checked for leakage in accordance with Article 4 of the F-Gas Regulation. Records of these checks must be kept in accordance with Article 6 of the F-Gas Regulation. These records must be submitted to the Licensing Authority annually and immediately in the event of discovery of leakage.

Where the equipment is subject to checks for leakage under Article 4(1) of the F-Gas Regulation and leakage in the equipment has been repaired, the Licensee must ensure that the equipment is checked by a suitably certified person within one calendar month after the repair to verify that the repair has been effective. In such event, the Licensing Authority must be informed of the date of discovery, date of repair and date of inspection.

**Reason: To ensure compliance of the Works with the F-Gas Regulation and the Fluorinated Greenhouse Gases Regulations 2015, in accordance with s.29(2)(b) of the 2010 Act.**

## **Environmental protection**

The Licensee must ensure that all reasonable, appropriate and practicable steps are taken at all times to avoid or minimise any damage to the Scottish marine area caused as a result of the undertaking of the Licensed Activities.

The Licensee must ensure that all personnel adhere to the SMWWC where appropriate during all construction, operation and maintenance activities authorised under this licence.

The Licensee must ensure that any debris or waste material placed below MHWS level during the construction of the Works is removed from the Site, unless agreed otherwise by the Licensing Authority, as soon as is reasonably practicable, for disposal at a location above the MHWS level, approved by SEPA or such other relevant authority if disposal is to take place outwith Scotland.

The Licensee must ensure that, where practicable, all substances and objects deposited during the Works are inert (or appropriately coated or protected so as to be rendered inert) and do not contain toxic elements which may be harmful to the marine environment, the living resources which it supports or human health.

The Licensee must ensure that the risk of transferring marine non-native species to and from the Site is kept to a minimum by ensuring appropriate bio-fouling management practices are implemented during the construction, operation and maintenance of the Works.

The Licensee must ensure that if oil based drilling muds are utilised they must be contained within a zero discharge system. Any drill cuttings associated with the use of water-based drilling muds situated within the Site need not be removed from the seabed.

**Reason:** *To ensure environmental impacts are minimised, in accordance with s.29(2)(b) of the 2010 Act.*

## **Availability of the licence for inspection**

The Licensee must ensure that copies of this licence and any subsequent amendments or variations are available for inspection at any reasonable time by any person authorised by the Licensing Authority at:

- a. the premises of the Licensee;
- b. the premises of any agent, contractor or sub-contractor acting on behalf of the Licensee;
- c. any onshore premises directly associated with the Works; and
- d. aboard any vessels permitted to engage in the Works.

**Reason:** *To ensure the licence is available for the purpose of inspection, in accordance with s.29(2)(b) of the 2010 Act.*

## **Inspection of the Works**

Any persons authorised by the Licensing Authority must be permitted to inspect the Works. The Licensee must, as far as reasonably practicable, on being given reasonable notice by the Licensing Authority (of at least 72 hours), provide transportation to and from the Site for any persons authorised by the Licensing Authority to inspect the Works.

**Reason:** *To ensure access to the Works for the purpose of inspection, in accordance with s.29(2)(b) of the 2010 Act.*

## **Emergencies**

If governmental assistance is required (including UK governmental assistance or the assistance of any UK devolved government) to deal with any emergency arising from:

- a. the failure to mark and light the Works as required by this licence;
- b. the maintenance of the Works; or
- c. the drifting or wreck of the Works,

to include the broadcast of navigational warnings, then the Licensee is liable for any expenses incurred in securing such assistance.

**Reason:** *To ensure Licensee is aware of financial liabilities, in accordance with s.29(2)(b) of the 2010 Act.*

## **Earlier marine licence**

Should the Licensee proceed to undertake the Works under the authority of this licence, all Works authorised under the previous marine licence in favour of Neart na Gaoithe Offshore Wind Limited, dated 10 October 2014 (licence number 04581/14/0) are not permitted.

**Reason:** *To ensure Licensed Activities are in accordance with the environmental assessments and application, in accordance with s.29(2)(b) of the 2010 Act.*

## **Conditions specific to the Works**

### **Conditions applicable to all phases of the Works**

#### **Incident Reporting**

In the event of any breach of health and safety or environmental obligations relating to the Works during the period of this Licence, the Licensee must provide written notification of the nature and timing of the incident to the Licensing Authority within 24 hours of the incident occurring. Confirmation of remedial measures taken and/or to be taken to rectify the breach must be provided, in writing, to the Licensing Authority within a period of time to be agreed by the Licensing Authority.

**Reason:** *To keep the Licensing Authority informed of any such incidents which may be in the public interest, in accordance with s.29(3)(c) of 2010 Act.*

#### **Bunding and storage facilities**

The Licensee must ensure suitable bunding and storage facilities are employed to prevent the release of fuel oils and lubricating fluids associated with the Works and associated equipment into the marine environment.

**Reason:** *To ensure pollution prevention is undertaken, in accordance with s.29(2)(b) of the 2010 Act.*

#### **Decommissioning**

There must be no Commencement of the Works unless a DP has been submitted to and approved in writing by the Licensing Authority. The DP must outline measures for the decommissioning of the Works, restoration of the sea bed and will include without limitation, proposals for the removal of the Works, the management and timing of the works and, environmental management provisions.

The Works must be decommissioned in accordance with the approved DP, unless otherwise agreed in writing in advance with the Licensing Authority.

This licence does not permit the Decommissioning of the Works, for which a separate marine licence is required.

**Reason:** *To ensure that decommissioning is carried out according to the approved Decommissioning Programme under an appropriate licence, in accordance with s.29(3)(d) of the 2010 Act*

## **Prior to the Commencement of the Works**

### **Commencement date of the Works**

The Licensee must, prior to and no less than one calendar month before the Commencement of the Works, notify the Licensing Authority, in writing, of the Commencement of the Works authorised under this licence.

**Reason:** *To inform the Licensing Authority of the commencement date of the Works, in accordance with s.29(3)(c) of the 2010 Act.*

### **Charting requirements**

The Licensee must, prior to the Commencement of the Works, provide the positions and maximum heights of any WTG and construction equipment to the UKHO, for nautical charting purposes, and to the Defence Geographic Centre, for aviation purposes.

**Reason:** *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.29(2)(b) of the 2010 Act.*

### **Monitoring of Marine Mammals**

Prior to the Commencement of the Works, the Licensee must appoint an MMO. When appointed, the MMO must, as a minimum, maintain a record of any sightings of marine mammals and maintain a record of the action taken to avoid any disturbance being caused to marine mammals during noisy activities. The Licensee must provide the Licensing Authority with the MMO records no later than six months following Commencement of the Works, and thenceforth at such other periods as agreed with the Licensing Authority.

**Reason:** *To ensure environmental impacts are minimised, in accordance with s.29(2)(b) of the 2010 Act.*

### **Noise Registry**

The Licensee must complete and submit a proposed activity form in the online Noise Registry for all aspects of the Works that will produce loud, low to medium frequency (10Hz-10kHz) impulsive noise no later than seven days prior to Commencement of the Works. If any aspects of the Works differ from the proposed activity form in the online Noise Registry, the Licensee must complete and submit a new proposed activity form no later than seven days prior to Commencement of the Works.

**Reason:** *To ensure compliance with reporting requirements on marine noise, in accordance with s.29(3)(c) of the 2010 Act.*

## **Navigation and Charting**

The Licensee must, no later than one calendar month prior to Commencement of the Works, notify the UKHO of the proposed works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system.

The Licensee must, no later than one calendar month prior to Commencement of the Works, ensure that local mariner's organisations and local fishermen's organisations and HM Coastguard are made fully aware of the Works through local Notice to Mariners or by any other appropriate means.

The Licensee must ensure that details of the Licensed Activities are promulgated in the Kingfisher Fortnightly Bulletin, no later than one calendar month prior to the Commencement of the Works to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.

The Licensee must, no later than eight weeks prior to the Commencement of the Works, complete an "Application for Statutory Sanction to Alter/Exhibit" form and submit this to the NLB for the necessary sanction to be granted.

**Reason:** *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.29(2)(b) of the 2010 Act.*

## **Third Party Certification or Verification**

The Licensee must no later than three calendar months (or such other period as agreed with the Licensing Authority) prior to the Commencement of the Works, provide the Licensing Authority with TPC or TPV (or a suitable alternative as agreed in writing with the Licensing Authority) for the lifespan of the Works.

**Reason:** *To provide independent certification or verification of the technology, materials or equipment, in accordance with s.29(2)(b) of the 2010 Act.*

## **Emergency Response Co-operation Plan**

The Licensee must, no later than six months prior to the Commencement of the Works, submit an ERCoP for the construction, operation, maintenance and decommissioning phases of the Works in writing, to the Licensing Authority for its written approval.

Such approval may only be granted following consultation by the Licensing Authority with the MCA and the NLB and any other navigational advisors or organisations as may be required at the discretion of the Licensing Authority.

The ERCoP should follow the template and guidance as found on the MCA website. The ERCoP must be developed in discussion with the MCA.

**Reason:** *For emergency response planning for the Works and requirements for search and rescue helicopter operations in and around the Works in accordance with s.29(3)(c) of the 2010 Act.*

## **Construction Method Statement**

The Licensee must, no later than six months prior to the Commencement of the Works, submit a CMS, in writing, to the Licensing Authority for its written approval. Such approval may only

be granted following consultation by the Licensing Authority with SNH, SEPA, MCA, NLB, RSPB Scotland, Forth Ports, Angus Council, Dundee City Council, East Lothian Council, Fife Council, Scottish Borders Council and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

The CMS must include, but not be limited to:

- a. Details of the commencement dates, duration and phasing for the key elements of construction, the working areas, the construction procedures and good working practices for installing the Works.
- b. Details of the roles and responsibilities, chain of command and contact details of company personnel, any contractors or sub-contractors involved during the construction of the Works.
- c. Details of how the construction related mitigation steps proposed in the Application are to be delivered.

The CMS must adhere to the construction methods assessed in the Application. The CMS also must, so far as is reasonably practicable, be consistent with a DS, the EMP, VMP, an NSP, the PS, the CaP and the LMP.

**Reason:** *To ensure the appropriate construction management of the Works, taking into account mitigation measures to protect the environment and other users of the marine area in accordance with s.29(3)(c) of the 2010 Act.*

## **Cable Plan**

The Licensee must, no later than six months prior to the Commencement of the Works, submit a CaP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, MCA, SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority. The CaP must be in accordance with the Application.

The CaP must include, but not be limited to, the following:

- a. The vessel types, location, duration and cable laying techniques for the inter array cables;
- b. The results of monitoring or data collection work (including geophysical, geotechnical and benthic surveys) which will help inform cable routing;

- c. Technical specification of inter array cables, including a desk based assessment of attenuation of electro-magnetic field strengths and shielding;
- d. A burial risk assessment to ascertain burial depths and where necessary alternative protection measures;
- e. Methodologies for surveys (e.g. over trawl) of the export cables through the operational life of the wind farm where mechanical protection of cables laid on the sea bed is deployed; and
- f. Methodologies for inter array cable inspection with measures to address and report to the Licensing Authority any exposure of inter array cables.

Any licensed cable protection must ensure existing and future safe navigation is not compromised. The Licensing Authority will accept a maximum of 5% reduction in surrounding depth referenced to Chart Datum. Any greater reduction in depth must be agreed in writing by the Licensing Authority.

**Reason: To ensure all environmental and navigational issues are considered for the location and construction of the inter array cables in accordance with s.29(3)(c) of the 2010 Act.**

## **Piling Strategy**

The Licensee must, no later than six months prior to the Commencement of the Works, submit a PS, in writing, to the Licensing Authority for their written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, RTC, WDC, Scottish Borders Council and any such other advisors as may be required at the discretion of the Licensing Authority.

The PS must include, but not be limited to:

- a. Details of expected noise levels from pile-drilling/driving in order to inform point d below;
- b. Full details of the proposed method and anticipated duration of piling to be carried out at all locations;
- c. Details of soft-start piling procedures and anticipated maximum piling energy required at each pile location; and
- d. Details of any mitigation such as Passive Acoustic Monitoring, MMO, use of Acoustic Deterrent Devices and monitoring to be employed during pile-driving, as agreed by the Licensing Authority.

The PS must be in accordance with the Application and must also reflect any monitoring or data collection carried out after submission of the Application.

The PS must demonstrate how the exposure to and/or the effects of underwater noise have been mitigated in respect to harbour porpoise, minke whale, bottlenose dolphin, harbour seal, grey seal, Atlantic salmon and sea trout.

The PS must, so far as is reasonably practicable, be consistent with the EMP, the PEMP and the CMS.

**Reason:** *To mitigate the underwater noise impacts arising from piling activity in accordance with s.29(3)(c) of the 2010 Act.*

## **Environmental Management Plan**

The Licensee must, no later than six months prior to the Commencement of the Works, submit an EMP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, SEPA, RSPB Scotland, WDC, RTC, Tay DSFB, Esk DSFB, Forth DSFB, FMS and any such other advisors or organisations as may be required at the discretion of the Licensing Authority .

The EMP must provide the over-arching framework for on-site environmental management during the phases of Works as follows:

- a. All construction as required to be undertaken before the Completion of the Works; and
- b. The operational lifespan of the Works from the Completion of the Works until the cessation of electricity generation.

The EMP must be in accordance with the Application insofar as it relates to environmental management measures. The EMP must set out the roles, responsibilities and chain of command for the company personnel, any contractors or sub-contractors in respect of environmental management for the protection of environmental interests during the construction and operation of the Works. It must address, but not be limited to, the following over-arching requirements for environmental management during construction:

- a. Mitigation measures to prevent significant adverse impacts to environmental interests, as identified in the Application and pre-consent and pre-construction monitoring or data collection, and include the relevant parts of the CMS (refer to condition 3.2.2.8);
- b. A pollution prevention and control method statement, including contingency plans;
- c. Management measures to prevent the introduction of invasive non-native marine species;
- d. A site waste management plan (dealing with all aspects of waste produced during the construction period), including details of contingency planning in the event of accidental release of materials which could cause harm to the environment. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged; and
- e. The reporting mechanisms that will be used to provide the Licensing Authority and relevant stakeholders with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.

The EMP must be regularly reviewed by the Licensee and the Licensing Authority or FTRAG, at intervals agreed by the Licensing Authority. Reviews must include, but not be limited to, the reviews of updated information on construction methods and operations of the Works and updated working practices.

The EMP must be informed, so far as is reasonably practicable, by the baseline monitoring or data collection undertaken as part of the Application and the PEMP.

**Reason:** *To ensure that all construction and operation activities are carried out in a manner that minimises their impact on the environment, and that mitigation measures contained in the Application, or as otherwise agreed, are fully implemented in accordance with s.29(3)(c) of the 2010 Act.*

### **Vessel Management Plan**

The Licensee must, no later than six months prior to the Commencement of the Works, submit a VMP, in writing, to the Licensing Authority for its written approval. Such approval may only be granted following consultation by the Licensing Authority with SNH, WDC, FP, MCA, NLB, SFF and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

The VMP must include, but not be limited to, the following details:

- a. The number, types and specification of vessels required;
- b. The manner in which vessel management will be coordinated, particularly during construction but also during operation;
- c. Location of working port(s), the routes of passage, the frequency with which vessels will be required to transit between port(s) and the Site and indicative vessel transit corridors proposed to be used during construction and operation of the Works; and
- d. A fishing gear De-Confliction Notice. The De-Confliction Notice must lay out guidelines for vessels operating in and around the Site and transiting into the Site from relevant ports.

The confirmed individual vessel details must be notified to the Licensing Authority in writing no later than 14 days prior to the Commencement of the Works, and thereafter, any changes to the details supplied must be notified to the Licensing Authority, as soon as practicable, prior to any such change being implemented in the construction or operation of the Works.

The VMP must, so far as is reasonably practicable, be consistent with the CMS, the EMP, the PEMP, the NSP, and an LMP.

**Reason:** *To mitigate the navigational risk to other legitimate users of the sea in accordance with s.29(3)(c) of the 2010 Act.*

## **During the Construction of the Works**

### **Transportation Audit Report**

The Licensee must submit to the Licensing Authority a detailed TAR for each calendar month during the construction phase of the Works. The TAR must be submitted within 14 days of the end of each calendar month.

The TAR must include the nature and quantity of all substances and objects deposited and materials used in construction (as described in Part 2 of this licence) in that calendar month. Alterations and updates can be made in the following month's TAR. Where appropriate, nil returns must be provided.

If the Licensee becomes aware of any substances, objects or materials on the TAR that are missing, or becomes aware that an accidental deposit has occurred, the Licensee must notify the Licensing Authority as soon as practicable. The Licensee must undertake such survey as directed by the Licensing Authority to locate the substances, objects and materials. If the Licensing Authority is of the view that any accidental deposits have occurred and should be removed, then the materials must be removed by the Licensee as soon as is practicable and at the Licensee's expense.

**Reason:** *To confirm that the deposits made were in accordance with the application documentation, in accordance with s.29(3)(c) of the 2010 Act and that any accidental deposits are recovered or charted appropriately in accordance with s.29(3)(c) of the 2010 Act.*

### **Navigational Safety**

The Licensee must notify the UKHO of the progress of the construction of the Works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system.

The Licensee must ensure that progress of the Works is promulgated regularly in the Kingfisher Fortnightly Bulletin to inform the commercial fishing industry of the vessel routes and the timing and location of the construction activities.

The Licensee must in the case of damage to, or destruction or decay of, the Works, notify the Licensing Authority, in writing, as soon as reasonably practicable, following such damage, destruction or decay. The Licensee must carry out any remedial action as required by the Licensing Authority, following consultation with the MCA, the NLB or any such advisers as required by the Licensing Authority.

The Licensee must ensure that any vessels permitted to engage in the construction of the Works are marked in accordance with the International Rules for the Prevention of Collisions at Sea whilst under way, and in accordance with the UK Standard Marking Schedule for Offshore Installations if the vessel is secured to the seabed.

The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of the Office of Communications (“OfCom”).

The Licensee must ensure that navigable depth is not altered by more than 5% referenced to Chart Datum unless otherwise agreed, in writing, with the Licensing Authority in consultation with the MCA and NLB.

**Reason:** *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.29(2)(b) of the 2010 Act.*

### **Markings, lighting and signals of the Works**

The Licensee must ensure that the Works are marked and lit in accordance with an approved LMP at all times. The LMP and any subsequent amendments must be approved by the Licensing Authority following consultation with the NLB, MCA, CAA and the MOD. The display of unauthorised marks or lights is prohibited.

The Licensee must ensure that the Works are marked and lit in accordance with IALA Recommendation O-139.

Unless otherwise approved by the Licensing Authority, the LMP must include but not be limited to:

- a. the lighting requirements of the MCA, NLB, CAA and MOD;
- b. that the boundary WTG, where they are more than 900m apart, must be lit with a single 2000 candela, red aviation light, flashing Morse ‘W’ in unison with all other boundary WTG;
- c. that all other WTG must be fitted with a fixed single red 200 candela aviation light for Search and Rescue (“SAR”) purposes; and
- d. that all WTG aviation lights should be compatible with night vision imaging systems.

**Reason:** *To ensure safe appropriate marking and lighting of the offshore Works, in accordance with s.29(2)(b) of the Marine (Scotland) Act 2010.*

### **Conditions upon Completion of the Works**

#### **Date of Completion of the Works**

The Licensee must, no later than one calendar month following the Completion of the Works, notify the Licensing Authority, in writing, of the date of Completion of the Works.

**Reason:** *To inform the Licensing Authority of the Completion of the Works, in accordance with s.29(3)(c) of the 2010 Act.*

## **Nature and quantity of substances and objects deposited and materials used in construction**

The Licensee must, no later than one calendar month following the Completion of the Works submit a final audit report, in writing, to the Licensing Authority stating the nature and quantity of all substances, objects placed below MHWS and all materials used in construction within the Scottish marine area under the authority of this licence.

**Reason: To confirm that the deposits made were in accordance with the Application and in accordance with s.29(3)(c) of the 2010 Act.**

## **Noise Registry Close Out**

The Licensee must complete and submit a close-out report for all aspects of the Works that produced loud, low to medium frequency (10Hz-10kHz) impulsive noise in the online Noise Registry no later than 12 weeks from the Completion of the Works.

**Reason: To ensure compliance with reporting requirements on marine noise, in accordance with s.29(3)(c) of the 2010 Act.**

## **Navigational Safety**

The Licensee must notify the UKHO of the Completion of the Works to facilitate the promulgation of maritime safety information and updating of admiralty charts and publications through the national Notice to Mariners system.

The Licensee must, within one month of the Completion of the Works, provide the “as-built” positions and maximum heights of all WTG, along with any sub-sea infrastructure, to the UKHO for aviation and nautical charting purposes.

The Licensee must, as per the requirements of the MCA’s MGN 543 and supplementary updates, complete post-installation hydrographic surveys of the Site or subsections thereof, to the IHO Order 1a survey standard. On completion of these surveys, the data and a corresponding report of survey must be supplied to the UKHO, with notification to the MCA hydrography manager and the Licensing Authority.

The Licensee must ensure that local mariners, fishermen’s organisations and HM Coastguard, in this case the National Maritime Coastguard Centre are made fully aware of the Completion of the Works.

The Licensee must ensure that the Completion of the Works is promulgated in the Kingfisher Fortnightly Bulletin to inform the commercial fishing industry.

The Licensee must, where any damage, destruction or decay is caused to the Works, notify the Licensing Authority, in writing, of such damage, destruction or decay as soon as reasonably practicable following such damage, destruction or decay. The Licensee must carry out any remedial action which the Licensing Authority advises the Licensee, in writing, as requiring to be taken, which may include a requirement to display aids to

navigation, following consultation by the Licensing Authority with the MCA, the NLB or any such advisers as required.

The Licensee must ensure that the WTG are actively monitored during the operation and maintenance phases. The Licensee must ensure that a contingency plan is in place to respond to any reported catastrophic failures which may result in the WTG, or part(s) thereof, breaking loose and becoming a buoyant hazard. This contingency plan should include the transmission of local radio navigation warnings.

The Licensee must ensure that no radio beacon or radar beacon operating in the marine frequency bands is installed or used on the Works without the prior written approval of the OfCom.

The Licensee must not exhibit, alter or discontinue navigational lighting of the Works without the statutory sanction of the Commissioners of Northern Lighthouses. An 'Application for Statutory Sanction to Exhibit/Discontinue' form must be completed by the Licensee as fully as possible and returned to the NLB for the necessary sanction to be granted prior to exhibiting, altering or discontinuing navigational lighting.

**Reason:** *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.29(2)(b) of the 2010 Act.*

### **Markings, lighting and signals of the Works**

The Licensee must ensure that the Works are marked and lit in accordance with an approved LMP at all times. The LMP and any subsequent amendments must be approved by the Licensing Authority following consultation with the NLB, MCA, CAA and the MOD. The display of unauthorised marks or lights is prohibited.

The Licensee must ensure that the Works are marked and lit in accordance with IALA Recommendation O-139.

Unless otherwise approved by the Licensing Authority, the LMP must include:

1. the lighting requirements of the MCA, NLB, CAA and MOD;
2. that the boundary WTG, where they are more than 900m apart, must be lit with a single 2000 candela, red aviation light, flashing Morse 'W' in unison with all other boundary WTG;
3. that all other WTG must be fitted with a fixed single red 200 candela aviation light for SAR purposes; and
4. that all WTG aviation lights should be compatible with night vision imaging systems.

**Reason:** *To ensure safe appropriate marking and lighting of the offshore Works, in accordance with s.29(2)(b) of the 2010 Act.*

## **Operation and Maintenance of the Works**

The Licensee must operate and maintain the Works in accordance with an approved OMP.

The OMP and any subsequent amendments must be approved by the Licensing Authority.

The Licensing Authority must be notified at least three calendar months or such other period as agreed by the Licensing Authority in advance of any maintenance of the Works not included in the OMP and involving licensable marine activities not covered under this licence.

**Reason:** *To ensure compliance with the approved OMP to prevent decay of the Works and to ensure that any maintenance work is carried out under an appropriate licence in accordance with s.29(3)(b) of the 2010 Act.*

## **Restoration of the Site to its original condition**

The Licensee must take all reasonable, appropriate and practicable steps at the end of the operational life of the Works to restore the Site to its original pre-construction condition, or to as close to its original condition as is reasonably practicable, in accordance with the PEMP and the DP and to the satisfaction of the Licensing Authority.

Should the Works be discontinued prior to expiry date of this marine licence, the Licensee must inform the Licencing Authority in writing of the discontinuation of the Works.

A separate marine licence will be required for the removal of Works.

**Reason:** *To mitigate the effects of the activity on the Site, in accordance with s.29(3)(e) of the 2010 Act.*

## **Charting requirements**

The Licensee must, within one month of the final Completion of the Works, provide the coordinates accurate to three decimal places of minutes of arc for each WTG, position and maximum heights of the WTG to UKHO and the Defence Geographic Centre for nautical charting and aviation purposes.

**Reason:** *To reduce the navigational risk to other legitimate users of the sea, in accordance with s.29(2)(b) of the 2010 Act.*

## **Final Commissioning of the Works**

The Licensee must, no more than one calendar month following the Final Commissioning of the Works, notify the Licensing Authority, in writing, of the date of the Final Commissioning of the Works.

**Reason:** *To inform the Licensing Authority of the Final Commissioning of the works, in accordance with s.29(3)(c) of the 2010 Act.*

## Definitions

- 1) **“the 2010 Act”** means the Marine (Scotland) Act 2010;
- 2) **“the Application”** means the application letter, marine licence applications, the Environmental Impact Assessment report and the Habitats Regulations Appraisal report submitted to the Licensing Authority by the Licensee on 16 March 2018 to construct, operate and maintain the Neart na Gaoithe Offshore Wind Farm and the addendum of additional information relating to ornithology subsequently submitted on 26 July 2018;
- 3) **“CAA”** means Civil Aviation Authority;
- 4) **“CaP”** means Cable Plan;
- 5) **“CMS”** means Construction Method Statement;
- 6) **“Commencement of the Works”** means the date on which the first vessel arrives on the Site) to begin carrying on any Licensed Activities in connection with the construction of the Works;
- 7) **“Completion of the Works”** means the date on which the Works have been installed in full, or the Works have been deemed complete by the Licensing Authority, whichever occurs first;
- 8) **“Contractor Reports”** means reports detailing that the name and address of any agents, contractors or subcontractors appointed to carry out any part, or all, of the Licensed Activities;
- 9) **“Decommissioning of the Works”** means removal of the Works from the seabed, demolishing or dismantling the Works;
- 10) **“DP”** means Decommissioning Programme;
- 11) **“Decommissioning Programme”** means the programme for decommissioning the Works, to be submitted by the Licensee to the Licensing Authority under section 105(2) of the Energy Act 2004 (as amended);
- 12) **“De-confliction Notice”** means a plan which sets out measures to be taken to avoid or reduce the impact of vessel movement on the local fishing industry and to promote a sustainable coexistence. It will include indicative transit routes for vessels operating in and around the development and transiting to the site from relevant ports;
- 13) **“DS”** means Design Statement;
- 14) **“DSFB”** means District Salmon Fishery Board;
- 15) **“EMP”** means Environmental Management Plan;
- 16) **“ERCoP”** means Emergency Response Co-operation Plan;
- 17) **“F-Gas Regulation”** means Regulation No 517/2014 of the European Parliament and of the Council of 16 April 2014 on Fluorinated Greenhouse Gases;
- 18) **“Final Commissioning of the Works”** means the date on which the last wind turbine generator constructed forming the Works has supplied electricity on a commercial basis to the National Grid, or such earlier date as the Licensing Authority deems the Works to be complete;
- 19) **“FMS”** means Fisheries Management Scotland;
- 20) **“FTRAG”** means Forth and Tay Regional Advisory Group or any successor group for the purpose of advising the Licensing Authority on research, monitoring and mitigation programmes for, but not limited to, ornithology, marine mammals, diadromous and commercial fish;
- 21) **“IALA”** means International Association of Marine Aids to Navigation and Lighthouse Authorities;

- 22) **“IHO Order”** means International Hydrographic Organization Order;
- 23) **“LAT”** means lowest astronomical tide;
- 24) **“Licensed Activities”** means any activity or activities listed in section 21 of the 2010 Act which is, or are authorised under this licence;
- 25) **“the Licensee”** means Neart na Gaoithe Offshore Wind Limited having its registered office at Atria One 144 Morrison Street, Edinburgh, EH3 8EX and registered in Scotland having its registered company number as SC356223;
- 26) **“LMP”** means Lighting and Marking Plan;
- 27) **“MCA”** means Maritime and Coastguard Agency;
- 28) **“MEDIN”** means Marine Environmental Data and Information Network;
- 29) **“MGN”** means Marine Guidance Note;
- 30) **“MHWS”** means mean high water springs;
- 31) **“MMO”** means Marine Mammal Observer;
- 32) **“MOD”** means Ministry of Defence;
- 33) **“NLB”** means Northern Lighthouse Board;
- 34) **“NSP”** means Navigational Safety Plan;
- 35) **“Noise Registry”** means the marine noise registry developed by the Department for Environment, Food and Rural Affairs (“DEFRA”) and the Joint Nature Conservation Committee (“JNCC”) to record human activities in UK seas that produce loud low to medium frequency (10Hz-10kHz) impulsive noise;
- 36) **“OCNS list”** means the definitive ranked list of registered products held by the Offshore Chemical Notification Scheme, as assessed for use by the offshore oil and gas industry under the Offshore Chemicals Regulations 2002 (as amended);
- 37) **“OMP”** means Operation and Maintenance Programme;
- 38) **“OSPAR”** means the Convention for the Protection of the Marine Environment of the North-East Atlantic;
- 39) **“PEMP”** means Project Environmental Monitoring Programme
- 40) **“PS”** means Piling Strategy;
- 41) **“RSPB Scotland”** means Royal Society for the Protection of Birds Scotland;
- 42) **“RTC”** means River Tweed Commission;
- 43) **“ScotMER”** means the Scottish Marine Energy Research Programme;
- 44) **“SEPA”** means the Scottish Environment Protection Agency;
- 45) **“SFF”** means Scottish Fishermen’s Federation;
- 46) **“SMWWC”** means the Scottish Marine Wildlife Watching Code;
- 47) **“SNH”** means Scottish Natural Heritage;
- 48) **“the Site”** means the total area extending to 105km<sup>2</sup> as shown delineated in red in Figure 1 in Part 4 of this licence;
- 49) **“the Works”** means the Neart na Gaoithe Offshore Wind Farm as described in Part 2 of this licence or any part thereof;
- 50) **“TAR”** means Transportation Audit Report;
- 51) **“TPC”** or **“TPV”** means Third Party Certification or Verification;
- 52) **“UKHO”** means United Kingdom Hydrographic Office;
- 53) **“Vessel Reports”** means reports detailing the operators, vessels and vehicles engaging in the Licensed Activities;
- 54) **“VMP”** means the Vessel Management Plan;
- 55) **“WDC”** means Whale and Dolphin Conservation; and
- 56) **“WTG”** means Wind Turbine Generators.