



Our Ref: ENQ/2015/0964  
Your Ref:

Ask for: Victoria Moore  
Direct Dial: 01224-664730  
Email: victoria.moore@aberdeenshire.gov.uk

Marine Scotland Licensing Operations Team  
[ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

Dear Sir/Madam

29 June 2015

Dear Sir/Madam

**Consultation response from Aberdeenshire Council: MARINE (SCOTLAND) ACT 2010, MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

**Application: A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

Thank you for your consultation letter of 05 May 2015.

Aberdeenshire Council consider that Marine Scotland are generally well placed to provide the expertise required to determine if the proposals are environmentally acceptable and if the activities can be adequately managed with low risk to the marine environment. Officers from the Planning Service are working closely with the applicants in relation to the onshore elements of the proposal at Peterhead for the cable landfall and switchgear building. Planning Permission will be issued shortly.

Having appraised the offshore element of the project, the laying of the cable and the location of the five floating wind turbines, the following comments should be considered:

#### Visual issues

The applicant has carried out the offshore and onshore "seascape/landscape impact visual impact assessment" in accordance with recommended guidance including 'Offshore Renewables Guidance on Assessing the Impact on Coastal Landscape and Seascape' (SNH 2012) and 'Guidelines for Landscape and Visual Impact Assessment third edition' (Landscape Institute and IEMA (Institute of Environmental Management & Assessment) published in 2013). The issue of cumulative and sequential effects has also been addressed by the applicant.



The applicant's landscape/seascape visual impact assessment information consistently indicates the visual significance of the proposed development in relation to the combination of the sensitivity of each receptor with the magnitude of effect and level of impact as being not significant. This conclusion relates to assessing the development's landscape/seascape and visual impact assessment for the 7 specific viewpoints, the assessment of sequential visual affects and the assessment of cumulative affects. Given the distance of the proposed development from the shore in particular, and the applicant's landscape/seascape visual impact assessment process there is little reason to question the applicant's conclusions with regards to the proposal's visual impact assessment. Aberdeenshire Council therefore has no objection to the proposal in terms of visual impact. A copy of the consultation response from Aberdeenshire Council's Environment Planner (Landscape) is attached for information.

#### Noise

The Council's Environmental Health Service have been consulted and having read the relevant sections of the Offshore Environmental Statement associated with the proposal have no adverse comments are made.

#### Archaeology

The proposal has been considered by the Archaeology Service. The impacts on archaeological remains, normally in this instance considered as either wrecks or submerged prehistoric landscapes, are dealt with in Section 16 'Marine Historic Environment' of the ES. Aberdeenshire Council agree with the methodology used for assessing direct and potential impacts the development may have on the historic environment, and the recommended mitigation approach.

Furthermore the visible component part of the development, namely the turbines themselves where they appear above the waterline, are at a sufficient distance offshore as to not be considered as having a negative visual impact on any onshore designated sites.

#### Environment

As this is for the offshore element of the Hywind project Aberdeenshire Council have no comments to make on the proposal, or ES. The related onshore elements of the project have been considered in relation to the Planning Application for the onshore works and subject to conditions and mitigation these impacts are considered acceptable.

#### Additional Comments

Members of the Buchan Area Committee were briefed on the proposal by the Planning Service. Aberdeenshire Council request the following comments are considered during your assessment.



- ☐ Aberdeenshire Council welcome this innovative project which exploits natural resources offshore.
- ☐ **New CO<sub>2</sub> pipeline** - Ensure that the new pipeline which is to be laid for the Carbon Capture Project from Peterhead Power Station to the existing gas pipeline that runs from the Goldeneye platform to St Fergus is taken into consideration. This has not been identified on “Figure 17.1 Other sea Users in the vicinity of the project” where an indicative location for the proposed North Connect cable is shown.
- ☐ **White Fish Sector** – during the summer months this area is believed to be fished intensively for both haddock and cod. The proposed development could therefore have a significant impact on this sector at certain times of year.
- ☐ **Shipping Radar** – This area has a large amount of traffic in terms of both fishing vessels and supply boats for the offshore sector. The wind turbines may cause clutter on shipping radar in addition to aviation radar.

If you have any queries relating to this letter please contact Victoria Moore on the number above.

Yours faithfully



**Head of Planning and Building Standards**

Adrian Tait  
Marine Scotland Licensing Operations Team

By email

28<sup>th</sup> May 2015

Dear Mr Tait,

**Re: Consultation on Marine Licence Application - Hywind Scotland Pilot Park – Our Ref. ABZ 2524.**

We refer to your planning notification dated and received in this office on 6<sup>th</sup> May 2015. This proposal has been examined from an aerodrome safeguarding perspective and conflicts with safeguarding criteria. We, therefore, object to the proposal on the following grounds:

The development is located approximately 25km off the coast of Peterhead, and within controlled airspace which is intensively used by aircraft. The proposed development will have a detrimental effect on Air Traffic Control and as such NERL have advised that they have an objection but that both NERL and ATC Aberdeen have agreed to pursue the possibility of blanking mitigation. Due to the operational impact on the primary radar used at AIA, we must object to this application on behalf of NERL. We will, however, lift this objection if it is confirmed that the required mitigation has been agreed and is in place.

Where a Planning Authority proposes to grant permission against the advice of AIA, it shall notify AIA, and the Civil Aviation Authority and the Scottish Ministers as specified in the Safeguarding of Aerodromes Direction 2003.

Yours sincerely

██████████  
**Safeguarding Manager**

██████████@aiaairport.com



Adrian Tait  
Marine Scotland Licensing Operations Team

By email

18<sup>th</sup> August 2015

Dear Mr Tait,

**Re: Consultation on Marine Licence Application - Hywind Scotland Pilot Park – Our Ref. ABZ 2524.**

We refer to your planning notification dated originally received in this office on 6<sup>th</sup> May 2015.

We have been advised by NERL that the required mitigation has been agreed and is in place for this development and we are now therefore in a position to remove our previous objection.

If you have any further questions regarding this application please do not hesitate to contact myself.

Yours sincerely

██████████  
**Safeguarding Manager**

██████████@aiairport.com

## **CONFIDENTIAL**

### **Objection by BP Exploration Operating Company Limited to:**

#### **Application for a Marine Licence Under part 4 of the Marine (Scotland) Act 2010, and under Part 4 of the Marine and Coastal Access Act 2009 to Deposit and Construct the Hywind Scotland Pilot Park**

**03 July 2015**

#### **Part 1. Objection**

Statoil proposes to develop and construct the Hywind Pilot Wind Park in the Buchan Deep as detailed in illustrative attachment 1. The proposed Hywind Pilot Wind Park is in close proximity to the BP owned and operated Forties Pipeline System as detailed in illustrative attachment 2.

The Forties Pipeline System transports 500,000bbls/day of hydrocarbon from over eighty fields, as also detailed in illustrative attachment 2. This represents ca 40% of UK produced oil. It also enables the delivery of ca 30% of UK gas production. Any damage to the Forties Pipeline System would have the potential to cause a nationally significant economic, environmental and security of gas supply impact.

There is potential risk of damage to the Forties Pipeline System arising out of the proposed Hywind Pilot Wind Park during its construction, installation and operational life. The risks during construction and installation are not currently clear due to a lack of information from Statoil. The key risk identified during the operational life of the Hywind Pilot Wind Park, which would exist for many years, is a Hywind wind turbine breaking free of its mooring lines and as a result drifting, impacting and causing rupture of the Forties Pipeline System.

If a rupture of the Forties Pipeline System was to occur:

- there could be a loss of about \$50 million per day (based on the combined losses of all shippers at current oil and gas prices). Further, because a pipeline break would take several months to repair, the aggregate loss could run to between \$5 billion and \$10 billion a significant proportion of which would comprise government tax income.
- there would be release of hydrocarbons into the environment constituting a pollution incident. It is difficult to be precise about the spill volume or the duration given the complex flow modelling. However the volume of hydrocarbons potentially released from a rupture could be significant and would be expected to be in excess of 110,000 bbls. The location where the rupture would occur is close enough to shore that oil may wash up on the shoreline, where there are areas designated as SSSI (Sands of Forvie, Foveran Links).

BP has engaged closely with Statoil for a considerable period of time, providing technical expertise to review and comment on Statoil's proposals for the Hywind Pilot Wind Park. BP have sought to understand the detail of the Hywind Pilot Wind Park; advise on the risks it poses to the Forties Pipeline System; and to work with Statoil to identify suitable mitigations such that the risk imposed by the Hywind Pilot Wind Park to the Forties Pipeline System is reduced to an acceptably low level. BP and Statoil are in agreement as to:

- the probability and consequence of the key risks;

- the measures that would mitigate the key risks; and
- the feasibility of undertaking these measures.

However, while BP is of the view that given the magnitude of the risks both in terms of the potential for a significant pollution event and financial loss they require to be mitigated to an acceptable level, Statoil have not been prepared to agree to proceed with the actions BP considers necessary to do so.

**In light of the potential magnitude of the economic, environmental and security of gas supply consequences of a rupture of the Forties Pipeline System arising out of a mooring failure at the proposed Hywind Pilot Wind Park, it would be inappropriate for permission to be granted in respect of this application without imposing conditions to address the identified risks, the probability and consequence of which are accepted by Statoil. BP accordingly objects to the application.**

The conditions to which BP refers are for:

1. Statoil to obtain the appropriate permits for and agree to pay for the cost of mechanically protecting the Forties Pipeline System against damage or rupture from collision between a free floating wind turbine and the Forties Pipeline. BP have offered to cap the amount of such costs to Statoil at £30 million; and
2. Statoil to enter into a proximity agreement with BP to cover the construction and installation of the Hywind Pilot Wind Farm. This would be based on standard oil and gas industry terms as set out in Part 4 below; and
3. The design of the Hywind Pilot Wind Park to be amended to include High Safety Class Moorings (BP may waive this if point 1 above is put in place, and Statoil demonstrate the quality control assumed in the DNV GL report); and
4. The draft emergency response plan to be successfully demonstrated, including successful trials of the equipment designed to arrest and control a free floating wind turbine in sea states up to those where it is assumed to work in the DNV GL report.

The aim of each of these conditions would be to reduce either the consequence of a risk event happening or its probability. The rationale is set out more fully below.

## **Part 2. Without Mitigation, the Risk is Unacceptable**

Statoil commissioned DNV GL to carry out a review to identify the risks and the potential consequences of locating the Hywind Pilot Wind Farm adjacent to the Forties Pipeline System. DNV GL's report (No. 2014-0805, Rev. 03) "Assessment of the probability of mooring line failure and the implications for the Forties Pipeline System" identified a number of scenarios and failure modes (along with the probability of such an event occurring) leading to the damage or rupture of the Forties Pipeline System.

BP accepts the probability and consequence of the risk events identified by DNV GL in the study for Statoil referred to above, given the assumptions made by DNV GL. However, BP has reservations about whether certain of those assumptions can be delivered in practice and so believes that the probability may be higher than assessed.

The outcome should the risk event occur is rupture of the Forties Pipeline System leading to pollution, physical damage and significant consequent financial loss. Taking the potential financial loss of up to \$10billion alone, and assuming a 20 year life and a  $6.37 \times 10^{-5}$  per year probability, an expenditure of \$13million is warranted (on the basis of that calculation) to avoid the incident. If the undesirability of the economic shock, the remediation costs of a pollution incident and the risk to gas security of supply is also taken into account the justifiable spend in respect of mitigations is, though difficult to quantify, considerably higher.

In particular, the DNV GL report identified two scenarios (Scenarios B and D as detailed below) which could result in the Forties Pipeline System being ruptured by a Hywind wind turbine causing a significant release of hydrocarbons and an outage of several months whilst the Forties Pipeline System would be repaired.

The scenarios are detailed below. Note that the BP commentary includes reference to the methodology used by BP to help assess risk. BP has a well-developed process in place for managing safety and operational risks such as these. The potential consequence is defined in terms of safety, environmental, financial terms, and/or certain other non-financial impacts.

**DNV Scenario B:** In this scenario total failure in the Hywind mooring lines has occurred (e.g. due to fatigue, overload, etc.) and the wind turbine drifts to the south west (predominant drifting direction) impacts and ruptures the Forties Pipeline System in the water depths of between 73m and 83m in the Buchan Deep. DNV calculated this scenario as having a probability of  $6.37 \times 10^{-5}$ . This is at a level of risk that BP, under its risk management process, would consider warrants further mitigation.

In addition to the above, BP has reservations on a number of the assumptions (listed in I-III below) made by DNV GL in deriving the probabilities in the case of Scenario B. This is relevant as it impacts assessment of the magnitude of the risk. BP has not been provided with evidence that Statoil will deliver what DNV GL have assumed in their analysis. If Statoil are unable to demonstrate that they can deliver on those assumptions then the risk level increases. From a technical point of view, the probability of Scenario B occurring would be raised from  $6.37 \times 10^{-5}$  to above  $10^{-4}$ . This would make the risk an order of magnitude more likely to occur than DNV GL have assessed it to be. Combined with the scale of the potential consequence, this level of probability increases the risk and places it into the highest possible risk classification in BP's internal risk process.

- I. DNV GL has assumed that Statoil will be able to eliminate all possible material, fabrication and installation procedure errors which could lead to the mooring lines failing. BP considers this assumption to be too optimistic. Statoil will have to demonstrate the effectiveness of their program of manufacturing and installation supervision to achieve this zero defect target.
- II. DNV GL has assumed that Statoil will achieve a success rate for detecting both single and double mooring line failure of 95%. BP considers this assumption to be too optimistic. Statoil will have to demonstrate that the detection methods they plan to use can actually achieve a 95% level of success.
- III. DNV GL has assumed that Statoil's emergency response would have a 95% success rate in non-storm conditions. BP considers that DNV's assumption around weather states and ability to successfully intervene is too simplistic. The application by DNV GL of a simple cut-off level for wind/sea state in which the method may be successfully deployed ignores the continued difficulties of responding in a less severe but nonetheless still forceful storm state



e.g. failure of the mooring system in a Beaufort 6 is assumed to be equally likely to be successful as in lower wind/sea states. Even if the GPS did manage to detect a mooring line failure, the assumption that Statoil's emergency response would have a 95% chance of success in launching a vessel and safely arresting the drifting of a turbine, and bringing it under control in a Beaufort 6 appears too optimistic. This concern and attempts to address it are reflected in **BP's condition 4.** above.

**DNV Scenario D:** A vessel has collided with a Hywind wind turbine with all three mooring lines having failed with the turbine having been damaged structurally e.g. loss of watertight integrity resulting in it sinking on top of the Forties Pipeline and rupturing the pipeline. DNV calculated this scenario as having a probability of  $6.78 \times 10^{-6}$ . BP accepts this assessment but, at this level of risk BP, under its risk management process, would consider further mitigation to be warranted.

### **Part 3. Practicable Mitigations for the risks during Operations**

BP and Statoil have been in discussion regarding the actions that can be taken to mitigate the probability and/or the consequence of the risks posed to the Forties Pipeline System during operations. The solutions discussed were:

- a) Locating the Hywind Pilot Wind Farm further away from the Forties Pipeline System;
- b) Designing the mooring system to High Safety Class; and
- c) Mechanically protecting the Forties Pipeline System.

The rationale for each of these and the current status of the discussions between BP and Statoil are discussed in more detail below:

- a) Locating the Hywind Pilot Wind Farm further away from the Forties Pipeline System either to the north or preferably to the south (but still within the Buchan Deep) would reduce the probability of a turbine drifting towards the shallow area of the Forties Pipeline System.

Statoil have rejected relocation on schedule grounds.

Improving the strength and long term integrity of the Mooring System by designing it to High Safety Class (versus Normal Safety Class as Statoil now propose) would reduce the probability of multiple mooring line failure due to increased reliability. This proposed mitigation is reflected in **BP's condition 3.** above.

Statoil rejected changing the design of the mooring system to High Safety Class as they consider it to be unnecessary. BP has highlighted that the classification decision requires consideration of the events resulting from a failure. High Safety Class is used for structures, whose failures imply large possibilities for significant environmental pollution or major societal losses, or very large economic consequences. BP would assert that an incident involving breach of the Forties Pipeline System which has the potential for the significant impacts described above is an outcome which requires for the purposes of classification the selection of the High Safety Class.

It is accepted throughout the oil and gas industry that offshore oil and gas mooring systems can fail more frequently than design expectations. Statoil have not shown that this would not also be the case for their proposed mooring system. There can be multiple causes for the failure of offshore mooring systems beyond those covered by simple factors of safety, for example substandard manufacture (missed by Class certification), damage during

installation, aggressive corrosion and wear, high local stress concentrations, etc. The majority of the causes of premature failure observed in the oil and gas industry will be equally valid for offshore floating wind farms.

If Statoil were to select the High Safety Class for the design of the Hywind mooring system then the reliability of the Hywind mooring system would increase, as a result of the more rigorous class requirements with regards to fatigue and overload safety factors. DNV GL has carried out a review of the Hywind Design Safety Class and has concluded that the Hywind mooring system has built in redundancy and therefore Normal Safety Class is appropriate. BP considers this to be inconsistent with the acknowledgement, in defining the safety class, of a series of consequences of which rupturing the Forties Pipeline is the most severe. BP considers that the consequence and probability of such an event occurring necessitates the choice of the High Safety Class specification.

- b) Mechanically protecting the Forties Pipeline System by e.g. rock dump or trenching the sections of the Forties Pipeline System identified as being at greatest risk would reduce the consequences in the event that a turbine breaks free of its moorings, drifts and collides with the Forties Pipeline System in the shallow section of the Buchan Deep. This proposed mitigation is reflected in **BP's condition 1.** above.

Specifically, the aim of mechanically protecting the pipeline would be to reduce the consequence of a collision between a free floating Hywind turbine and the Forties Pipeline System in scenario B. The target would be to be able to move to a category as per DNV RP-F107: D1 (Damage neither requiring repair, nor resulting in any release of hydrocarbons), R0 (No release of hydrocarbons).

BP has carried out initial studies which suggest that suitably designed rock dumping in the shallow 73m-83m section would enable the Forties Pipeline System to withstand an impact from a wind turbine without being ruptured or from suffering significant damage. After such protection, the BP risk management process would assess the risk at a significantly reduced level that would not require further mitigation other than inspection and repair.

The scope of mechanical protection requires further study to establish the type, coverage required, and length of pipeline to be protected. It must be noted that permits will also have to be obtained.

BP considers it reasonable and appropriate that the costs associated with implementing any of the measures above and any mitigation of the risks to which the existing Forties Pipeline System would be exposed by the Hywind Pilot Wind Park should be to Statoil's account as the party installing this new, adjacent development.

#### **Part 4. Practicable Mitigations for the risks during Construction and Installation**

Statoil has not provided BP with details about the installation of the Hywind Pilot Wind Park. Accordingly BP is not in a position to comment on the methods or equipment being used, nor to evaluate the risk that this will impose on the Forties Pipeline System.

The normal approach to such situations in developments affecting the oil and gas industry is to execute a proximity agreement, and is reflected in **BP's condition 2.** above. A proximity agreement addresses:

- a) approval rights over the design of any proximate works on the seabed and scope of installation activity. This would cover any parts of the design, plans and procedures that might be expected to affect the risk of damage to the Forties Pipeline System including details of transit routes, anchor handling, heavy lifts, installation of mooring lines etc.
- b) the allocation of risk and liabilities in the event of any damage and any losses being caused during the installation.

Full details of the oil and gas industry standard terms are available on the Oil and Gas UK web site. BP and Statoil have discussed the execution of such a proximity agreement and BP understands that Statoil is in principle prepared to enter into such an agreement.

#### **Part 5. Recommendation**

**Based on the details of this objection and bearing in mind the risk to the Forties Pipeline System, BP asks Marine Scotland either:**

- 1. to refuse the application as it currently stands; or**
- 2. if Marine Scotland is minded to grant the application to grant it subject to appropriate conditions as set above.**

#### **Contact Details**

Questions or comments should be addressed to:

██████████  
FPS Business Manager  
BP Exploration Operating Company Limited  
1 Wellheads Avenue  
Dyce  
Aberdeen  
AB21 7PB

01224 ██████████

## **CONFIDENTIAL**

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**03 July 2015**

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If a rupture of the Forties Pipeline System was to occur:

- there could be a loss of about \$50 million per day (based on the combined losses of all shippers at current oil and gas prices). Further, because a pipeline break would take several months to repair, the aggregate loss could run to between \$5 billion and \$10 billion a significant proportion of which would comprise government tax income.
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However, while BP is of the view that given the magnitude of the risks both in terms of the potential for a significant pollution event and financial loss they require to be mitigated to an acceptable level, Statoil have not been prepared to agree to proceed with the actions BP considers necessary to do so.

**In light of the potential magnitude of the economic, environmental and security of gas supply consequences of a rupture of the Forties Pipeline System arising out of a mooring failure at the proposed Hywind Pilot Wind Park, it would be inappropriate for permission to be granted in respect of this application without imposing conditions to address the identified risks, the probability and consequence of which are accepted by Statoil. BP accordingly objects to the application.**

The conditions to which BP refers are for:

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## **Part 2. Without Mitigation, the Risk is Unacceptable**

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BP accepts the probability and consequence of the risk events identified by DNV GL in the study for Statoil referred to above, given the assumptions made by DNV GL. However, BP has reservations about whether certain of those assumptions can be delivered in practice and so believes that the probability may be higher than assessed.

The outcome should the risk event occur is rupture of the Forties Pipeline System leading to pollution, physical damage and significant consequent financial loss. Taking the potential financial loss of up to \$10billion alone, and assuming a 20 year life and a  $6.37 \times 10^{-5}$  per year probability, an expenditure of \$13million is warranted (on the basis of that calculation) to avoid the incident. If the undesirability of the economic shock, the remediation costs of a pollution incident and the risk to gas security of supply is also taken into account the justifiable spend in respect of mitigations is, though difficult to quantify, considerably higher.

In particular, the DNV GL report identified two scenarios (Scenarios B and D as detailed below) which could result in the Forties Pipeline System being ruptured by a Hywind wind turbine causing a significant release of hydrocarbons and an outage of several months whilst the Forties Pipeline System would be repaired.

The scenarios are detailed below. Note that the BP commentary includes reference to the methodology used by BP to help assess risk. BP has a well-developed process in place for managing safety and operational risks such as these. The potential consequence is defined in terms of safety, environmental, financial terms, and/or certain other non-financial impacts.

**DNV Scenario B:** In this scenario total failure in the Hywind mooring lines has occurred (e.g. due to fatigue, overload, etc.) and the wind turbine drifts to the south west (predominant drifting direction) impacts and ruptures the Forties Pipeline System in the water depths of between 73m and 83m in the Buchan Deep. DNV calculated this scenario as having a probability of  $6.37 \times 10^{-5}$ . This is at a level of risk that BP, under its risk management process, would consider warrants further mitigation.

In addition to the above, BP has reservations on a number of the assumptions (listed in I-III below) made by DNV GL in deriving the probabilities in the case of Scenario B. This is relevant as it impacts assessment of the magnitude of the risk. BP has not been provided with evidence that Statoil will deliver what DNV GL have assumed in their analysis. If Statoil are unable to demonstrate that they can deliver on those assumptions then the risk level increases. From a technical point of view, the probability of Scenario B occurring would be raised from  $6.37 \times 10^{-5}$  to above  $10^{-4}$ . This would make the risk an order of magnitude more likely to occur than DNV GL have assessed it to be. Combined with the scale of the potential consequence, this level of probability increases the risk and places it into the highest possible risk classification in BP's internal risk process.

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e.g. failure of the mooring system in a Beaufort 6 is assumed to be equally likely to be successful as in lower wind/sea states. Even if the GPS did manage to detect a mooring line failure, the assumption that Statoil's emergency response would have a 95% chance of success in launching a vessel and safely arresting the drifting of a turbine, and bringing it under control in a Beaufort 6 appears too optimistic. This concern and attempts to address it are reflected in **BP's condition 4.** above.

**DNV Scenario D:** A vessel has collided with a Hywind wind turbine with all three mooring lines having failed with the turbine having been damaged structurally e.g. loss of watertight integrity resulting in it sinking on top of the Forties Pipeline and rupturing the pipeline. DNV calculated this scenario as having a probability of  $6.78 \times 10^{-6}$ . BP accepts this assessment but, at this level of risk BP, under its risk management process, would consider further mitigation to be warranted.

### **Part 3. Practicable Mitigations for the risks during Operations**

BP and Statoil have been in discussion regarding the actions that can be taken to mitigate the probability and/or the consequence of the risks posed to the Forties Pipeline System during operations. The solutions discussed were:

- a) Locating the Hywind Pilot Wind Farm further away from the Forties Pipeline System;
- b) Designing the mooring system to High Safety Class; and
- c) Mechanically protecting the Forties Pipeline System.

The rationale for each of these and the current status of the discussions between BP and Statoil are discussed in more detail below:

- a) Locating the Hywind Pilot Wind Farm further away from the Forties Pipeline System either to the north or preferably to the south (but still within the Buchan Deep) would reduce the probability of a turbine drifting towards the shallow area of the Forties Pipeline System.

Statoil have rejected relocation on schedule grounds.

Improving the strength and long term integrity of the Mooring System by designing it to High Safety Class (versus Normal Safety Class as Statoil now propose) would reduce the probability of multiple mooring line failure due to increased reliability. This proposed mitigation is reflected in **BP's condition 3.** above.

Statoil rejected changing the design of the mooring system to High Safety Class as they consider it to be unnecessary. BP has highlighted that the classification decision requires consideration of the events resulting from a failure. High Safety Class is used for structures, whose failures imply large possibilities for significant environmental pollution or major societal losses, or very large economic consequences. BP would assert that an incident involving breach of the Forties Pipeline System which has the potential for the significant impacts described above is an outcome which requires for the purposes of classification the selection of the High Safety Class.

It is accepted throughout the oil and gas industry that offshore oil and gas mooring systems can fail more frequently than design expectations. Statoil have not shown that this would not also be the case for their proposed mooring system. There can be multiple causes for the failure of offshore mooring systems beyond those covered by simple factors of safety, for example substandard manufacture (missed by Class certification), damage during

installation, aggressive corrosion and wear, high local stress concentrations, etc. The majority of the causes of premature failure observed in the oil and gas industry will be equally valid for offshore floating wind farms.

If Statoil were to select the High Safety Class for the design of the Hywind mooring system then the reliability of the Hywind mooring system would increase, as a result of the more rigorous class requirements with regards to fatigue and overload safety factors. DNV GL has carried out a review of the Hywind Design Safety Class and has concluded that the Hywind mooring system has built in redundancy and therefore Normal Safety Class is appropriate. BP considers this to be inconsistent with the acknowledgement, in defining the safety class, of a series of consequences of which rupturing the Forties Pipeline is the most severe. BP considers that the consequence and probability of such an event occurring necessitates the choice of the High Safety Class specification.

- b) Mechanically protecting the Forties Pipeline System by e.g. rock dump or trenching the sections of the Forties Pipeline System identified as being at greatest risk would reduce the consequences in the event that a turbine breaks free of its moorings, drifts and collides with the Forties Pipeline System in the shallow section of the Buchan Deep. This proposed mitigation is reflected in **BP's condition 1.** above.

Specifically, the aim of mechanically protecting the pipeline would be to reduce the consequence of a collision between a free floating Hywind turbine and the Forties Pipeline System in scenario B. The target would be to be able to move to a category as per DNV RP-F107: D1 (Damage neither requiring repair, nor resulting in any release of hydrocarbons), R0 (No release of hydrocarbons).

BP has carried out initial studies which suggest that suitably designed rock dumping in the shallow 73m-83m section would enable the Forties Pipeline System to withstand an impact from a wind turbine without being ruptured or from suffering significant damage. After such protection, the BP risk management process would assess the risk at a significantly reduced level that would not require further mitigation other than inspection and repair.

The scope of mechanical protection requires further study to establish the type, coverage required, and length of pipeline to be protected. It must be noted that permits will also have to be obtained.

BP considers it reasonable and appropriate that the costs associated with implementing any of the measures above and any mitigation of the risks to which the existing Forties Pipeline System would be exposed by the Hywind Pilot Wind Park should be to Statoil's account as the party installing this new, adjacent development.

#### **Part 4. Practicable Mitigations for the risks during Construction and Installation**

Statoil has not provided BP with details about the installation of the Hywind Pilot Wind Park. Accordingly BP is not in a position to comment on the methods or equipment being used, nor to evaluate the risk that this will impose on the Forties Pipeline System.

The normal approach to such situations in developments affecting the oil and gas industry is to execute a proximity agreement, and is reflected in **BP's condition 2.** above. A proximity agreement addresses:



- a) approval rights over the design of any proximate works on the seabed and scope of installation activity. This would cover any parts of the design, plans and procedures that might be expected to affect the risk of damage to the Forties Pipeline System including details of transit routes, anchor handling, heavy lifts, installation of mooring lines etc.
- b) the allocation of risk and liabilities in the event of any damage and any losses being caused during the installation.

Full details of the oil and gas industry standard terms are available on the Oil and Gas UK web site. BP and Statoil have discussed the execution of such a proximity agreement and BP understands that Statoil is in principle prepared to enter into such an agreement.

#### **Part 5. Recommendation**

**Based on the details of this objection and bearing in mind the risk to the Forties Pipeline System, BP asks Marine Scotland either:**

- 1. to refuse the application as it currently stands; or**
- 2. if Marine Scotland is minded to grant the application to grant it subject to appropriate conditions as set above.**

#### **Contact Details**

Questions or comments should be addressed to:

██████████  
FPS Business Manager  
BP Exploration Operating Company Limited  
1 Wellheads Avenue  
Dyce  
Aberdeen  
AB21 7PB

01224 ██████████

## Crookston C (Claire)

---

**From:** [REDACTED]@openreach.co.uk on behalf of radionetworkprotection@bt.com  
**Sent:** 05 May 2015 15:12  
**To:** Tait A (Adrian) (MARLAB); MS Marine Licensing  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir/Madam

NIL return from BT Radio Network Protection

Thanks

*Regards*

[REDACTED]  
**Radio Frequency Allocation & Network Protection**

**Tel** 0191 2696372

**mobile :** [REDACTED]  
[REDACTED]@bt.com

**Web:** <http://operate.intra.bt.com/operate>

---

**From:** Adrian.Tait@scotland.gsi.gov.uk [mailto:Adrian.Tait@scotland.gsi.gov.uk]  
**Sent:** 05 May 2015 10:08  
**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir / Madam,

**MARINE (SCOTLAND) ACT 2010**

**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**

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

**APPLICATION FOR:**

- **A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

On the 27th March 2015, Hywind (Scotland) Limited (HSL) applied to the Scottish Ministers for a marine licence to deposit and construct a floating offshore wind demonstration project known as the Hywind Scotland Pilot Park (comprising five 6 MW wind turbines) at the Buchan Deeps, approximately 25 km off the coast of Peterhead. This application is supported by an environmental statement ("ES").

A marine licence has been requested under the above Acts to undertake the deposit and construction of a floating offshore wind farm and cable laying works at a location below the level of Mean High Water Springs. Licence application details are summarised below:

Name and address of applicant:	Hywind Scotland Limited 1 Kingdom Street London W2 6BD
--------------------------------	---

Location of deposits:	Off the coast of Peterhead, in an area bounded by the
-----------------------	---

following coordinates:

Latitude (WGS84)	Longitude (WGS84)	Latitude (WGS84)	Longitude (WGS84)
1° 23.033' W	57° 30.302' N	1° 41.890' W	57° 31.486' N
1° 19.542' W	57° 29.715' N	1° 44.102' W	57° 31.485' N
1° 18.691' W	57° 29.023' N	1° 46.569' W	57° 30.679' N
1° 22.797' W	57° 27.603' N	1° 47.374' W	57° 30.959' N
1° 23.762' W	57° 28.416' N	1° 44.467' W	57° 31.773' N
1° 23.573' W	57° 29.989' N	1° 41.780' W	57° 31.764' N
1° 24.430' W	57° 29.317' N	1° 37.620' W	57° 30.444' N
1° 32.779' W	57° 29.632' N	1° 22.455' W	57° 29.478' N
1° 35.138' W	57° 29.800' N	1° 46.027' W	57° 31.023' N
1° 37.804' W	57° 30.184' N	1° 46.604' W	57° 30.825' N
		1° 46.673' W	57° 30.919' N

As required by the above legislation, details of the applications must be published for two consecutive weeks in the local press. Notices will appear in The Scotsman, The Fishing News, The Edinburgh Gazette and The Buchan Observer.

The above legislation allows for representation to be made to Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **16<sup>th</sup> June 2015**. If you wish to submit a response, please send to: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

If you have no comments to make, please submit a 'nil return' response. If you require an extension to the consultation deadline I would be grateful if you let us know before the deadline date.

A copy of the ES will be sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact Marine Scotland Licensing Operations Team as soon as possible.

We would also be grateful if you would acknowledge receipt of this email.

Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

\*\*\*\*\*

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

\*\*\*\*\*

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## MEMORANDUM

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**FAO** [REDACTED], DM Major Applications Team  
**From:** [REDACTED] Environment Planner (Landscape).  
**Ext No:** (721) 8395 **Date:** 22/06/15  
**Your Ref:** Offshore Component of APP/2015/0494  
**Our Ref:** Buchan Deeps Offshore Facilities 3

---

**PROPOSAL:** Full Planning Application for Erection of Offshore Wind Farm

**ADDRESS:** Site Located 25 km off the coast of Peterhead. Detail coordinates provided by applicant.

**MARINE (SCOTLAND) ACT 2010**  
**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**  
**THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)**  
**REGULATIONS 2007 (AS AMENDED)**

### **APPLICATION FOR:**

**A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010,  
AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO  
DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

### **1.0 Introduction:**

These comments are written primarily in relation to landscape/seascape and visual impact issues and the above full application for a proposed offshore wind energy development.

The applicant has carried out the offshore and onshore seascape/landscape impact visual impact assessment in accordance with recommended guidance including 'Offshore Renewables Guidance on Assessing the Impact on Coastal Landscape and Seascape' and 'Guidelines for Landscape and Visual Impact Assessment third edition'

It needs to be borne in mind that there is an element of professional judgement in the assessment of visual affects and opinions can vary between different assessors and readers of landscape and visual impact information.

The issue of cumulative and sequential effects has also been addressed by the applicant.

The application is for 5 no 2.3 Mw wind turbines to be located around 25km off the Peterhead coast. The height of the turbines are yet to be confirmed, but are understood to be in the range of 159m-178m to tip height from mean sea level. The finished colour of the turbines shall be pale grey with a semi mat finish.

The current application is understood to be primarily for the offshore element of this proposed development.

## **2.0 Seascape/Landscape and Visual Impact Assessment:**

The applicant has produced a seascape/landscape and visual impact assessment which is included in the planning application package of information. The package of information includes the seascape/landscape and visual impact assessment of 7 viewpoints with full assessment of the sensitivity of the receptors, the magnitude of change to the perceived character from the viewpoint and the significance of the predicted visual impacts.

The Seascape/Landscape and Visual Impact Assessment information includes photomontages and computer generated images to provide readers with graphic visualisations of the proposed development.

The Seascape/Landscape and Visual Impact Assessment includes detailed ZTV information out to 50km from the proposed development. The ZTV information generally indicates that potential visual affects will be continuous in every direction in the maritime environment with some visual affects predicted for onshore receptors depending on proximity to the coast and the nature of the topography etc. For onshore receptors potential visual effects appear to concentrate around locations such as Peterhead and Aberdeen.

Appraising all the applicant's Seascape/Landscape and Visual Impact Assessment information and the assessment of the 7 main view points generally the following can be concluded:

The 7 viewpoints have been assessed as having a sensitivity that ranges between medium and high. However for all the viewpoints the magnitude of effect and level of impact has been consistently assessed as minor in both categories of assessment.

In terms of significance of effects the 7 receptors have been assessed by the applicant's consultants as 'not significant'.

Other important receptors have been assessed by the applicant including the Trump International golf development at Menie. For Menie the applicant identifies that the proposed development is between 41 and 44km from the Menie golf development depending where on the golf course a viewer is located. The landscape/seascape and visual impact assessment process identifies the Menie golf course as having a medium sensitivity to the proposed development with the magnitude of effect and level of impact predicted for the proposed development as being identified as minor for this receptor.

The applicant has also assessed the visual affects of the development on sequential receptors such as roads in the Peterhead area including the A90, A950, A952, A98, B9000, B9029, B9030, B9031, B9032, B9033 and the B9170. Consistently for these sequential receptors, the sensitivity has been assessed as medium with the magnitude of visual effect and level of visual impact rated by the applicant's

consultants as minor. For all these receptors the visual impact significance has been assessed as being not significant.

For receptors such as Peterhead Bay South Road, Ugy Estuary from the North Road and the Formartine and Buchan Way, these have been assessed as having a high sensitivity, with the impact significance for these receptors assessed as not significant.

Other receptors such as Culsh Monument, New Deer and Peterhead as a settlement were assessed and both were given a high sensitivity as a receptor, with levels of impact significance identified as not significant.

There is a consistency to the Landscape/Seascape Visual Impact Assessment carried out for this application in terms of the overall impact of significance identified for all these receptors previously mentioned being assessed as not significant.

#### **4.0 Cumulative visual impact assessment:**

With regards to cumulative affects, the applicant has addressed this issue, identifying two off shore wind energy projects within 50 km of the proposed development, the European Offshore Wind Deployment Centre (EOWFL): located at a distance of 37 km from the application site, and the Kincardine Offshore Wind Farm: located at a distance of 47 km from the proposed development.

As well as these offshore wind energy schemes there are a number of onshore wind energy projects most notably in the Buchan area located at around 25km or further from the application site.

The applicant concludes with regards to the assessment of cumulative affects and this application that subject to the exact extent and configuration of the ZTVs for these other developments, a degree of cumulative and in combination impacts may potentially occur relating to simultaneous or successive visibility. However, due to the low magnitude of change relating to any possible inter visibility between the applicant's proposed development and other wind energy developments in the region, because of the very long separation distances both between the developments under consideration, and between each development and the receptors being assessed, it is not considered that any of these would result in a significant effect.

#### **5.0 Concluding comments:**

With regards to landscape/seascape and visual impact assessment issues the applicant's landscape/seascape and visual impact assessment information indicates that there will be predicted visual affects potentially over a significant area surrounding the proposed development, extending to an onshore area notably in and around Peterhead. The applicant's ZTV information, such as Fig 19.2 provides graphic indication of this on plan format.

The proposed wind turbine specification understood to be in the range of 159m-178m to tip height from mean sea level will be notably tall structures with the potential to be seen over significant distances. However given their location, 25km off the Peterhead coast their visual affects on onshore receptors will be limited to a degree.

The applicant's landscape/seascape visual impact assessment information consistently indicates the visual significance of the proposed development in relation

to the combination of the sensitivity of each receptor with the magnitude of effect and level of impact as being not significant. This conclusion relates to assessing the development's landscape/seascape and visual impact assessment for the 7 specific viewpoints, the assessment of sequential visual affects and the assessment of cumulative affects. Given the distance of the proposed development from the shore in particular, and the applicant's landscape/seascape visual impact assessment process there is little reason to question the applicant's conclusions with regards to the proposal's visual impact assessment. I am therefore of the opinion that with regards to the application's landscape/seascape visual impact assessment issues the application can be viewed positively.



**Environment Planner (Landscape) 22 June 2015**



## Crookston C (Claire)

---

**From:** Windfarms <Windfarms.Windfarms@caa.co.uk>  
**Sent:** 20 May 2015 08:52  
**To:** MS Marine Licensing  
**Cc:** Tait A (Adrian) (MARLAB)  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir/Madam,

### **APPLICATION FOR A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

Having reviewed the Environmental Statement provided, the appropriate aviation consultees (NATS and the MOD) have been identified although the positions of each consultee regarding the proposed development should be established by consultation. It is also recommended that the Maritime and Coastguard Agency are consulted with regard to any impact on offshore Search and Rescue helicopter operations.

I would also add the need, if the proposed development is approved, to inform the Defence Geographic Centre ([mail to dvofof@mod.uk](mailto:dvofof@mod.uk)) of the locations, heights, lighting status of the turbines and the estimated and actual dates of construction to allow for the appropriate inclusion on Aviation Charts, for safety purposes.

Any structure the height of which is 60m or more above the level of the sea at the highest astronomical tide which is situated in waters within or adjacent to the United Kingdom up to the seaward limits of the territorial sea should be lit in accordance with the Air Navigation Order and should be appropriately marked.

In addition, it is noted that the intention would be to assemble the turbines at a to be decided onshore assembly point and tow them to their final position. This has the potential to create an aviation obstacle and therefore it is requested that should consent be granted, the CAA are notified of the proposed route and timings at least one month prior to commencement of the first turbine being towed into position to ensure that aviation stakeholders can be appropriately notified. It is likely that the CAA would require aviation lighting to be fitted to the turbines during the tow but the CAA would be happy to discuss this requirement with the developers should consent be granted.

Should you have any further questions please feel free to contact me, details below.

*Mark*

M Deakin  
Squadron Leader (RAF)

Surveillance and Spectrum Management  
Safety and Airspace Regulation Group  
Civil Aviation Authority  
45-59 Kingsway London WC2B 6TE  
Tel: 020 7453 6534 Fax: 020 7453 6565  
[mark.deakin@caa.co.uk](mailto:mark.deakin@caa.co.uk)

---

**From:** Adrian.Tait@scotland.gsi.gov.uk [mailto:Adrian.Tait@scotland.gsi.gov.uk]  
**Sent:** 05 May 2015 10:08  
**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir / Madam,

**MARINE (SCOTLAND) ACT 2010**

**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**

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

**APPLICATION FOR:**

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A marine licence has been requested under the above Acts to undertake the deposit and construction of a floating offshore wind farm and cable laying works at a location below the level of Mean High Water Springs. Licence application details are summarised below:

Name and address of applicant:	Hywind Scotland Limited 1 Kingdom Street London W2 6BD
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Location of deposits:	Off the coast of Peterhead, in an area bounded by the following coordinates:
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The above legislation allows for representation to be made to Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **16<sup>th</sup> June 2015**. If you wish to submit a response, please send to: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

If you have no comments to make, please submit a 'nil return' response. If you require an extension to the consultation deadline I would be grateful if you let us know before the deadline date.

A copy of the ES will be sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact Marine Scotland Licensing Operations Team as soon as possible.

We would also be grateful if you would acknowledge receipt of this email.

Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

\*\*\*\*\*

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

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## Crookston C (Claire)

---

**From:** Tait A (Adrian) (MARLAB)  
**Sent:** 15 June 2015 13:48  
**To:** [REDACTED]  
**Cc:** Queiros J (Joao)  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

[REDACTED]

Many thanks for your reply to the consultation. I will send a copy to the applicant.

MS-LOT will certainly take into account your comments and apply these to any conditions of a marine licence should one be granted.

Kind regards,

Adrian

**Adrian Tait**

[marinescotland](#)

Marine Renewables Licensing Manager  
Marine Scotland Licensing Operations Team  
Scottish Government  
Marine Laboratory | 375 Victoria Road  
Aberdeen, AB11 9DB  
Phone: 01224 295 668 | 07557 848 720

---

**From:** [REDACTED]@ukchamberofshipping.com]  
**Sent:** 15 June 2015 13:35  
**To:** Tait A (Adrian) (MARLAB)  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Adrian

The UK Chamber of Shipping has no objection to the proposals to construct and operate the Hywind Scotland Pilot Park. As the developer proposes to deploy floating wind turbine structures, a new concept in UK waters, we wish to highlight a number of issues that will require further consideration and consultation with navigational stakeholders post-consent:

- The Chamber and other commercial shipping stakeholders should be consulted on any proposals to apply operational safety zones. The Chamber does not support the application of operational safety zones around traditional turbine structures (based on a lack of existing safety justification) but may consider them appropriate for floating turbines due to the presence of mooring systems and the ability of the turbines to move. Any proposal should be supported by a full navigational risk assessment justifying the need for safety zones. We would not support designation of the site as an Area to be Avoided.
- Local ports and harbours and commercial vessel operators should be kept regularly updated on progress with construction, normal operations and maintenance through Notices to Mariners and other means of communication.
- The Emergency Response Co-operation Plan (ERCoP) should include full details of the emergency procedures to be executed in the event of a turbine breaking free of its moorings, including the process for informing vessels in the vicinity of the site of any potential hazards.

If you require any further information from the Chamber, please do not hesitate to contact me.

Kind regards

Policy Manager

**UK Chamber of Shipping**  
30 Park Street, London, SE1 9EQ

DD +44 (0) 20

[www.ukchamberofshipping.com](http://www.ukchamberofshipping.com)

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**From:** [Adrian.Tait@scotland.gsi.gov.uk](mailto:Adrian.Tait@scotland.gsi.gov.uk) [<mailto:Adrian.Tait@scotland.gsi.gov.uk>]

**Sent:** 05 May 2015 10:08

**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir / Madam,

**MARINE (SCOTLAND) ACT 2010**  
**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**  
**THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

**APPLICATION FOR:**

- **A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

On the 27th March 2015, Hywind (Scotland) Limited (HSL) applied to the Scottish Ministers for a marine licence to deposit and construct a floating offshore wind demonstration project known as the Hywind Scotland Pilot Park (comprising five 6 MW wind turbines) at the Buchan Deeps, approximately 25 km off the coast of Peterhead. This application is supported by an environmental statement ("ES").

A marine licence has been requested under the above Acts to undertake the deposit and construction of a floating offshore wind farm and cable laying works at a location below the level of Mean High Water Springs. Licence application details are summarised below:

Name and address of applicant:	Hywind Scotland Limited 1 Kingdom Street London W2 6BD
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Location of deposits:	Off the coast of Peterhead, in an area bounded by the following coordinates:
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Latitude (WGS84)	Longitude (WGS84)	Latitude (WGS84)	Longitude (WGS84)
1° 23.033' W	57° 30.302' N	1° 41.890' W	57° 31.486' N
1° 19.542' W	57° 29.715' N	1° 44.102' W	57° 31.485' N
1° 18.691' W	57° 29.023' N	1° 46.569' W	57° 30.679' N
1° 22.797' W	57° 27.603' N	1° 47.374' W	57° 30.959' N

1° 23.762' W	57° 28.416' N	1° 44.467' W	57° 31.773' N
1° 23.573' W	57° 29.989' N	1° 41.780' W	57° 31.764' N
1° 24.430' W	57° 29.317' N	1° 37.620' W	57° 30.444' N
1° 32.779' W	57° 29.632' N	1° 22.455' W	57° 29.478' N
1° 35.138' W	57° 29.800' N	1° 46.027' W	57° 31.023' N
1° 37.804' W	57° 30.184' N	1° 46.604' W	57° 30.825' N
		1° 46.673' W	57° 30.919' N

As required by the above legislation, details of the applications must be published for two consecutive weeks in the local press. Notices will appear in The Scotsman, The Fishing News, The Edinburgh Gazette and The Buchan Observer.

The above legislation allows for representation to be made to Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **16<sup>th</sup> June 2015**. If you wish to submit a response, please send to: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

If you have no comments to make, please submit a 'nil return' response. If you require an extension to the consultation deadline I would be grateful if you let us know before the deadline date.

A copy of the ES will be sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact Marine Scotland Licensing Operations Team as soon as possible.

We would also be grateful if you would acknowledge receipt of this email.

Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

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HISTORIC SCOTLAND  
ALBA AOSMHOR

By Email: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

Mr Adrian Tait  
Marine Scotland  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
ABERDEEN  
AB11 9DB

Longmore House  
Salisbury Place  
Edinburgh  
EH9 1SH

Direct Line: [REDACTED]  
Switchboard: 0131 668 8600  
[REDACTED]@scotland.gsi.gov.uk

Our ref: AMN/16/GB  
Our Case ID: 201500700  
12 June 2015

Dear Mr Tait

**Marine (Scotland) Act 2010, Part 4 Marine Licensing  
Marine and Coastal Access Act 2009 (as amended), Part 4 Marine Licensing  
The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)  
Deposit and Construct the Hywind Scotland Pilot Park Project**

I refer to the email correspondence and the accompanying Environmental Statement (ES) on the above. For information, this letter covers our comments on the ES for our role as consultee through the Scottish Ministers under the terms of the above regulations. The comments in this letter relate to our statutory remit for scheduled monuments and their settings, category A listed buildings and their settings, gardens and designed landscapes appearing in the Inventory, Inventory battlefields and Historic Marine Protected Areas (Marine (Scotland) Act 2010). In this case, our advice also includes matters relating to marine archaeology outwith the scope of the terrestrial planning system.

Historic Scotland's position

We are content that the above proposals do not raise significant concerns for our remit. I attach our comments on the adequacy of the ES and our views on the application as an annex to this covering letter.

Historic Scotland's advice

We would suggest that suspensive conditions be applied to any license granted regarding the proposed mitigation relating to marine assets. Further details are included in the attached annex.

I hope this letter is of assistance to you. Please do not hesitate to contact me on the details given above should you have any questions regarding this letter.

Yours sincerely

[REDACTED]

[REDACTED]

Senior Heritage Management Officer, EIA



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[www.historic-scotland.gov.uk](http://www.historic-scotland.gov.uk)

## **Annex**

### **The Proposed Development**

I understand that the proposed development consists of the installation of 5 wind turbines located approximately 25km off the coast at Peterhead. The turbines will be positioned 700-1600m apart and attached to the seabed by a 3-point mooring spread and anchoring system with a radius of 600-1200m from each turbine. The turbines will be connected by inter-array cables and an export cable will run from the Pilot Park to shore at Peterhead to connect to the Peterhead Grange substation.

We note that the onshore works to include a 1.5km underground cable and small switchgear yard facility are not covered by this EIA and will be dealt with via a separate planning application.

### **Terrestrial Assets**

We are content that as a result of the offshore works, there shall be no direct impacts on designated terrestrial assets. In terms of indirect impacts, we have considered the potential for impacts on the setting of designated terrestrial assets. Having reviewed the submitted information, we are content that there will be no adverse indirect or cumulative impacts on terrestrial assets which would raise significant concerns.

### **Marine Assets**

We are content that there are no assets within the development study area that are subject to statutory protection.

We are content with the information presented in the marine historic environment chapter of the ES. However, we note the potential for direct impact on potential heritage assets of unknown significance.

We would recommend that Marine Scotland set a condition requiring the developer to submit a written scheme of investigation (WSI) for approval by Historic Scotland / Marine Scotland prior to commencement of construction. This should cover the proposed investigation of any site where avoidance is not possible and set out in detail the mitigation strategies, recording and reporting of these.

Separately a condition requiring the developer to adopt and implement a suitable protocol for archaeological discoveries (PAD) should be applied to any license granted, again to be approved by Historic Scotland / Marine Scotland prior to the commencement of works on site.

### **Summary**

Overall, we are content in principal with the proposals, and consider that there shall be no adverse impacts on marine or terrestrial assets within our remit which would raise significant concerns. We are content with the proposed scheme providing that the above suggested conditions are implemented. As such we have no significant concerns with the application.

### **Historic Scotland**

**12 June 2015**

## Crookston C (Claire)

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**From:** Trevor.Johnson@hse.gsi.gov.uk  
**Sent:** 09 June 2015 09:26  
**To:** Queiros J (Joao); MS Marine Licensing  
**Cc:** Tait A (Adrian) (MARLAB)  
**Subject:** RE: One week before reminder - Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Joao Queiros

I have no comments relevant to the marine licence application for the Hywind Offshore Wind Farm Development.

It is worthy of note that the site developers have proactively contacted HSE to discuss the management arrangements for health and safety during the construction and operational phases of the development.

Regards

Trevor Johnson  
Offshore Renewable Energy Team  
Energy Division  
Health and Safety Executive  
59 Belford Road  
Edinburgh  
EH4 3UE

0131 247 2001  


---

**From:** Joao.Queiros@scotland.gsi.gov.uk [mailto:Joao.Queiros@scotland.gsi.gov.uk]  
**Sent:** 09 June 2015 08:19  
**To:** MS.MarineLicensing@scotland.gsi.gov.uk  
**Cc:** Adrian.Tait@scotland.gsi.gov.uk  
**Subject:** One week before reminder - Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir/Madam,

### **ONE WEEK BEFORE REMINDER**

**MARINE (SCOTLAND) ACT 2010**  
**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**  
**THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

### **APPLICATION FOR:**

- **A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

Please find attached a copy of our previous email for the above application. The closing date for any comments you may wish to make on the above proposal is **16<sup>th</sup> June 2015**. If you are unable to meet this deadline, please contact us

to arrange an extension to the consultation period. If you have no comments to make please submit a “nil return” response.

A copy of the Environmental Statement has been previously sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact the Marine Scotland Licensing Operations Team as soon as possible.

Please send any response you wish to submit to [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk).

Yours faithfully,

Joao Queiros

[marinescotland](http://marinescotland)

Marine Renewables Casework Officer

Marine Scotland Licensing Operations Team

Scottish Government

Marine Laboratory | 375 Victoria Road

Aberdeen, AB11 9DB

Phone: +44 (0)1224 295 513 | S/B: +44 (0)1224 876 544

[Joao.Queiros@scotland.gsi.gov.uk](mailto:Joao.Queiros@scotland.gsi.gov.uk) / [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

<http://www.scotland.gov.uk/marinescotland>

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

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Marine Scotland  
Licensing Operations Team  
PO Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

3<sup>rd</sup> July 2015

By email only: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

For the attention of Adrian Tait, Joao Queiros and Roger May

Dear Sirs

### **Hywind Scotland Pilot Park Project - JNCC and SNH advice on application**

Thank you for consulting JNCC and SNH on the application submitted for the *Hywind Scotland Pilot Park Project*. The application is made under the Marine (Scotland) Act 2010 and the Marine and Coastal Access Act 2009 and supporting regulations. Within the marine environment, JNCC is the statutory nature conservation adviser for development proposals from 12 nautical miles (nm) offshore out to the edge of the continental shelf. SNH is the statutory adviser for proposals within 12 nautical miles of the coast. We have been liaising closely to provide joint advice on the Hywind demonstration project.

The Hywind demonstration project consists of five offshore floating turbines installed in offshore waters (beyond 12nm), which will generate a maximum of 30MW and will be connected ashore by an export cable to Peterhead. The Agreement for Lease Area (AfL) covers 75 km<sup>2</sup>, however Hywind have confirmed that the project will only be developed within the *northern development area*. Therefore, the total area to be occupied by the turbines will be 15 km<sup>2</sup>, including 15 moorings and suction anchors. Five inter-array cables (up to 3km long) will be installed, with buoys being used to maintain their configuration. The inter-array cables could be partially covered by protection materials (up to 7.5km), buried or laid onto the seabed. The export cable (35km long) will be buried and could be partially covered by protection materials (up to 2km).

Our advice below contains and updates previous advice on the Hywind demonstration project.

### **KEY ADVICE**

#### **Ornithology**

From our review of both the Environmental Statement (ES) and Habitat Regulations Appraisal (HRA) reports we conclude that for the Hywind development alone there is no adverse effect on site integrity for bird interests, as it is a small offshore development of five turbines.

However, when we consider the Hywind proposal in combination with other developments, specifically other wind farms consented for the east coast (i.e. Moray Offshore Renewables Limited (MORL), Beatrice Offshore Windfarm Limited (BOWL), the three Forth and Tay offshore wind farms (Neart na Gaoithe, Seagreen and Inch Cape), the European Offshore

Wind Deployment Centre (EOWDC) in Aberdeen Bay, and proposed tidal developments within species' mean-max foraging range (mmfr), we cannot advise that there will be no adverse effect on site integrity with respect to:

- northern gannet (Forth Islands Special Protection Area (SPA))
- black-legged kittiwake (Fowlsheugh SPA)
- Atlantic puffin (Forth Islands SPA).

Furthermore, a large number of auks were found on site during post-breeding dispersal and we do not agree with the ES conclusion that disturbance by shipping is negligible. We suggest some mitigation options to address this issue in Annex VI.

Please refer to Annex I for our detailed ornithological assessment.

### **Marine mammals**

Within inshore waters, SNH do not agree with the conclusion of no Likely Significant Effect (LSE) on bottlenose dolphins from the Moray Firth Special Area of Conservation (SAC) due to the cable-laying activities close to the coast. The HRA for this project should therefore consider this. However, due to the temporary nature of the activity and the relatively localised nature of the disturbance (and low risk of injury), SNH advise that there would be no adverse impact on site integrity. SNH also advise the developers to apply for an EPS licence.

Please refer to Annex II for our detailed assessment on marine mammals.

### **Environmental Management and Monitoring**

We support the commitment provided in the ES (Section 21) to agree and implement a Project Environmental Management Plan and Programme (PEMP). In addition, if the project is consented we would welcome further discussion on monitoring requirements for Hywind in order to validate some of the ES predictions and consider the environmental impacts of this pilot project in the context of its location and cumulative impacts with other East Coast consented windfarms.

Please refer to Annex VI for further detailed comments on this aspect.

We have divided our comments into the following annexes below:

- Annex I Ornithology
- Annex II Marine mammal ecology
- Annex III Benthic and intertidal ecology
- Annex IV Fish of Conservation Concern
- Annex V Seascape, Landscape and Visual Impacts
- Annex VI Environmental Management and Monitoring

If you have any queries about our advice, then please do not hesitate to contact either Enrique Pardo at JNCC ([enrique.pardo@jncc.gov.uk](mailto:enrique.pardo@jncc.gov.uk), 01224 266590) or Mareike Moeller-Holtkamp at SNH ([mareike.moeller-holtkamp@snh.gov.uk](mailto:mareike.moeller-holtkamp@snh.gov.uk), 01786 435 392).

Yours sincerely,



Karen Hall  
**Offshore Industries Advice Manager**

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## **Annex I. Ornithology**

### **Overarching comment**

We would like to make the general point that reviewing the impacts of this development on marine birds has been very challenging. The presentation of ornithological information across a number of separate documents has made it necessary to repeatedly refer to multiple documents, including some submitted much earlier in the planning process. Although most of the recommended methods appear to have been used in the final assessment, the spread of information throughout several documents has made it more difficult to confirm which methods have been used in the final assessment. Whilst there are various points, listed below in Section 3, where our advice has still not been fully followed, we feel that addressing them would not substantially change our conclusions regarding the potential impact of the Hywind development.

#### **1. HRA advice**

We cannot rule out LSE on some qualifying features of some SPAs. The most significant risks are associated with:

- herring gull (Buchan Ness to Collieston Coast SPA, collision risk)
- northern gannet (Forth Islands SPA, collision risk)
- black-legged kittiwake (Buchan Ness to Collieston Coast SPA, collision risk)
- common guillemot (Buchan Ness to Collieston Coast SPA, displacement)
- razorbill (Fowlsheugh SPA, displacement), and
- seabird assemblages.

However, for all these qualifying features, we consider that this proposal alone will not adversely affect the integrity of any site.

Any in-combination assessment however, should take into account any impacts from the recently consented Moray Firth offshore wind farm developments (Moray Offshore Renewables Limited (MORL) and the Beatrice Offshore Windfarm Limited (BOWL)), the three Forth and Tay offshore wind farm proposals (Neart na Gaoithe, Seagreen and Inch Cape), the European Offshore Wind Deployment Centre (EOWDC) in Aberdeen Bay and proposed tidal developments within species' mean-max foraging range (mmfr).

As such, in terms of an in combination assessment, we are unable to conclude that this development will have no adverse effect on site integrity, with respect to the following features at the following sites;

- northern gannet (Forth Islands SPA)
- black-legged kittiwake (Fowlsheugh SPA)
- Atlantic puffin (Forth Islands SPA).

We acknowledge that the process of assessing impacts of developments on birds inevitably carries a relatively high level of uncertainty due to a lack of empirical data regarding impacts of offshore wind farms on birds. Given the small size of the Hywind development and correspondingly small impacts on birds, the additional bird mortality attributable to Hywind is probably smaller than the uncertainty in mortality predicted to occur due to the Forth and Tay developments. However, despite this the development will still contribute some additional mortality to interest features of SPAs for which SNH and JNCC have previously advised that

predicted impacts from consented developments exceed levels that would allow a conclusion of no adverse impact on site integrity.

## **2. General comments**

### **Seabird and Marine Mammal Technical Report**

The technical report has presented the data from one year, with reference to an additional second period as additional evidence. We recommended that the analysis utilised the highest counts no matter whether they were recorded in the first year or additional period. The developer has not taken this approach.

We note that there are several receptors that have connectivity with the site, yet for which no LSE was concluded. This goes against our previous advice that even perceived negligible impacts should be screened in and dealt with as part of the appropriate assessment (AA). Providing this transparency would have been good practice and set a good example for future developments. Our advice is that for this project alone there is no adverse effect on site integrity for those receptors identified as having LSE from this project alone.

## **3. Specific comments**

In previous correspondence, JNCC and SNH requested data collection and processing be carried out in line with our advice and recommendations to other developments in the Moray Firth and Forth and Tay. However, these requests have been overlooked in several cases.

### **3.1 Period of data collection and estimation of bird abundance**

Bird surveys were conducted over one year for most months with a second year of data collected during July, August and September, a time of year when peak numbers of auks were noted. SNH and JNCC requested in our response of 6<sup>th</sup> February 2015 that, for months with two years of data, the highest abundance data be used in analyses. However, only the first year of data was used to estimate impacts (Table 6, Technical Report).

JNCC and SNH previously advised to use second breeding season data maxima to inform densities of birds on development site, but this does not appear to have been taken on board. Standard practice has been used to assess displacement based on birds on water and in flight, and only birds in flight for collision risk. The level of double counting involved has been acknowledged. However, we are pleased to note that bird abundance was taken to be the 95% upper confidence limit, rather than the mean estimate.

The long list of SPAs considered covers all expected sites, selected using the method outlined in the HRA report. The main anomaly is the use of the mean maximum foraging range (mmfr) +10% value. The source of this information is Thaxter *et al* (2012), which is the generally recommended text for foraging range values. The mmfr is also the preferred metric, although the use of + 10% to inflate the value beyond the bare mean is not standard. Figures are presented in the Thaxter paper with +/- 1 standard deviation around the mean.

Moreover, the use of 10% of the mean instead of 1sd usually results in a lower value for the range, meaning that some sites are not scoped into the long list. However, these will be sites with weaker connectivity and given the size of this development it is unlikely it would contribute a significant impact on mortality or productivity to any such site.

### 3.2 Auk 'chicks at sea' period

The high densities of auks during the post-fledging dispersal were a prominent feature of the first year of seabird surveys for the Hywind assessment. This phenomenon has been included in the HRA report and it indicates more than 3000 guillemots and 1000 razorbill present within the development area during this period. The second period of surveys indicated lower, but still significant, numbers present in July / August. The number of birds on sea in September was higher in the second year than in the first year.

It is likely that these numbers comprise more than 1% of the populations of Buchan Ness to Collieston Coast, Fowlsheugh and Troup, Pennan and Lion's Heads SPAs. In the pre-application discussions we had agreed that these features should be considered if the wind turbine generator (WTG) area + 1 km held at least 1% of an SPA population and the receptor was considered to be at least 'moderately vulnerable' to at least one impact source.

We agree that collision risk is not an expected impact pathway for these species at this time of year. However, given the high densities, we expected to see consideration of pollutant release and displacement / disturbance by structures or shipping as potential impact pathways. The argument presented in the HRA is that the very transient nature of the passage of the auks through the area, the small footprint of the wind farm and the fact that published evidence suggests individuals may move up to 50 km per 24 hours suggests little impact on birds from displacement / disturbance. Release of contaminants is little considered.

We argue that the impact of shipping activity on post-breeding auks and dispersing young is poorly understood. Separating newly fledged young from their parents could have significant consequences for the young. Whilst we therefore do not agree with the ES conclusion that disturbance by shipping is negligible, we can advise that this is not likely to result in adverse effects on integrity of any of the SPAs. Nevertheless we suggest mitigation in Annex VI.

### 3.3 Non-breeding season screening

The HRA for the non-breeding season relies on the Biologically Defined Minimum Population Scales (BDMPS) report (Furness, 2015) using population totals (including SPA totals) and regional populations based on that report, or other 'reference populations'. As yet we do not have guidelines for assessment of non-breeding season HRA, but where non-standard methods are used, these should be clearly explained. The process by which the BDMPS reference populations should be applied to casework in Scottish / UK sites is still being developed. Therefore, given that the approach taken here is clearly explained, we accept it as a working method, at present. Where other methods are used for assigning reference populations of seabirds, this is explained in the text. We think that sufficient information has been provided to allow the impact to be assessed.

The approach to assessment presented assumes 'equal mixing' of populations (i.e. there is no longer an influence of central place foraging). While the true situation is likely to be somewhere between central place (colony-linked) foraging and equal mixing, there is not strong enough evidence to give exact or even approximate values of what the percentage of separate populations might be. In this case, it is assumed that even mixing occurs.

One element of precaution is that all birds on site have been treated as if they are adults. This is known not to be the case. It inflates the impact assigned to SPA breeding populations and therefore is regarded as precautionary. However, for some species, ratios of adults to immature can be recorded. We agree with the list of LSE impacts detailed in the Summary table 2.2., and accept the conclusion that there are no non-breeding season impacts to be considered further.

### 3.4 Collision Risk Modelling

The Joint SNCB advice note of November 2014, issued in response to the Marine Scotland Science (MSS) Avoidance Rates Review, recommends that site-specific flight height data be used where it is of sufficient quality. However, for the Hywind development site, we have not identified sufficient evidence that collecting flight height data at 10m height interval bands is accurate and reliable enough to warrant its use over the published estimates in Johnston *et al* (2014). Initial studies on site-specific flight height estimates have shown a high degree of observer bias, thus it is necessary to be confident that the site-specific estimates are reliable. The evidence supporting the quality of the site-specific data for the Hywind development site has not been forthcoming. Given this, we have considered collision mortality estimates derived from published estimates, assuming them to be more reliable.

Given our concerns regarding the quality of the site-specific flight height data, we are pleased to note that the Option 4 Band model was not used in the final assessment of collision mortality. We are also pleased to note that, with the exception of Arctic tern, breeding season periods used to estimate collision mortality align with those used for other developments in the Moray Firth, Forth and Tay, as per our request.

The species of most concern are kittiwake, with 17 collisions during the breeding season, and gannet, with 6 collisions during the breeding season. There are also a small number of herring gull collisions (mainly outwith the breeding season). The HRA assesses these collision rates against a theoretical 'increase in mortality of 1% threshold' (page 19). However, ignoring any such arbitrary threshold, the total number of collisions attributed to Hywind is relatively small compared to the overall size of the populations. Following apportioning of collisions, these values alone are not sufficient to increase mortality rates to a level that would suggest an adverse impact on site integrity.

### 3.5 Displacement impacts

The approach taken is to assume that all displaced birds are adults and the breeding attempt fails if birds are displaced, and the general displacement rate for birds is also set at 50%. Using this precautionary approach, we do not consider there to be an adverse impact on site integrity from the project alone.

However, displacement impacts have not been assessed for kittiwake or gannet. Displacement impacts from the Forth and Tay developments were assessed for these species and emerging evidence shows gannets to be highly susceptible to disturbance and being displaced from offshore wind farms (Leopold *et al* 2013, Vanerman *et al* 2013). JNCC and SNH have advised that mortality from those developments, in combination, is too high for gannet and kittiwake, and hence it would be valuable to assess displacement impacts from the Hywind development. However, given the small footprint of the Hywind development, we anticipate displacement impacts from this development alone to have a small effect on these features.

### 3.6 EIA

In this instance, due to the BDMPS report not being finalised and the likely relative risk of this small development, we agreed with the developer that a "Regional population... of most relevance to Hywind" might be appropriate for the EIA Assessment. In general, please note that we would advise that the population of relevance for EIA is the population that is biologically linked, which is likely to be bigger than the regional population, especially as we have a relatively good understanding of predicted impacts from renewable developments in UK waters.

## **Annex II. Marine mammal ecology**

No piling operations will take place as part of the Hywind development and noise levels are unlikely to exceed injury/disturbance levels for marine mammals.

Given the above, JNCC and SNH agree with the conclusion that the risk of injury or disturbance to marine mammals is low. We also agree with the assessments of the risk of entanglement and of corkscrew fatalities.

Furthermore, we agree with the conclusion of no LSE for grey and harbour seals, due to the distance to the nearest seal SACs, the low risk of impact and low numbers of seals in the area.

We would like to highlight to Hywind that the Cetacean Management Units paper has now been updated ([http://jncc.defra.gov.uk/pdf/Report\\_547\\_webv2.pdf](http://jncc.defra.gov.uk/pdf/Report_547_webv2.pdf)) but that this does not fundamentally change the conclusions of the assessment.

The operator has recorded four species of cetacean; minke whale, harbour porpoise (accounting for 70% of sightings), white-beaked dolphin and Risso's dolphin. However, we would caution against over interpreting any seasonal data. For most species of cetacean, the presence and number of animals using particular areas may vary considerably between seasons and years, limiting the value of seasonal considerations. One would need several years of data showing a seasonal pattern to be able to use this evidence to justify any variations to the development proposal (for example, adapting construction timings). Therefore, in most cases, and for the purposes of EIA, it should be assumed that animals could be present in the area at any time of the year.

Within inshore waters, SNH do not agree with the ES conclusion of no LSE on bottlenose dolphins from the Moray Firth SAC. Whilst there are few, if any, bottlenose dolphins observed / likely to be within the offshore WTG site, the same is not true of the cable route. SNH conclude that there is LSE from the cable-laying activities close to the coast and as such the HRA is inadequate in this respect. There is potential for disturbance to bottlenose dolphins, which travel along this coast between the Moray Firth and the East coast as far south as the Forth/Tay estuaries, from a number of sources: vessel noise, geophysical surveys, trenching and rock/mattress placement. However, due to the temporary nature of the activity, and the relatively localised nature of the disturbance (and low risk of injury), SNH advise that there would be no adverse impact on site integrity.

SNH also advise the developers to apply for an EPS licence. Although the risk of injury to cetaceans is very low and disturbance is likely to be localised and temporary, there is a possibility that some disturbance could occur.

### Annex III. Benthic and intertidal ecology

The footprint of the project has been estimated as 0.273km<sup>2</sup>, while the export cable footprint would be 0.21km<sup>2</sup>. We note that the worst case scenario assumes of the 35km of cable route up to 2km will require protective materials, and for the inter-array cables up to 7.5km will require protective materials. We acknowledge that these estimates are based on a worst-case scenario and would expect Statoil to minimise the amount of protection material used within the WTG area and export cable route as much as possible in order to minimise impacts to benthic habitats.

We have considered the impacts of this proposal on inshore Priority Marine Features (PMFs) and have concluded that any impacts will be minor and/or of short duration. No offshore PMFs occur in the development area.

The benthic surveys conducted identified *Sabellaria spinulosa* reef on the southern area of the AfL. However, it has been decided that the project will only develop in the northern area of the AfL and as such would avoid impacts to the *Sabellaria* reef in the WTG area. Three types of Annex I reef habitat were identified along the cable route: stony reefs, bedrock reefs and *Sabellaria spinulosa* reefs. The *Sabellaria* reef is classed as “low grade” (based on height and % coverage) and patchily distributed. Although the cable trench will cut through some of this reef habitat, the impacts will be localised and Statoil have committed to routing the export cable in order to minimise damage to the *Sabellaria* reef (although it will not be possible to avoid all reef areas). Moreover, the majority of the export cable is expected to be buried, which could allow for some recovery of benthic habitats after the installation phase.

We highlight that it was previously agreed that benthic hydrodynamic effects (i.e. scouring & sedimentation around anchors) should be scoped in. Despite featuring in the Chapter 9 summary box (bullet 2), they are explicitly omitted from the assessment (9.6.1 pg. 9-30) based on the physical processes impact assessment in Chapter 8. However 8.7.2 merely says scour effects are addressed in other chapters. As well as not being good EIA practice to provide apparently empty cross-referencing, this aspect has not been assessed and we therefore can only provide limited advice.

The rock-covered (non-buried) sections of the cables, and the anchor chains, would be very low-profile. Any scour around them is not likely to significantly add to their footprint of effects. For the far taller suction anchors, scour-protection is specified as extending 15m beyond the anchors, i.e. more than 4x their radius (Section 4.3.2). Given the wide spacing of the WTGs, this design consideration (rather than the arguments quoted above) makes further assessment of scour unnecessary.

The WTG area will require scour protection for the suction anchors (no more than 15m), however the footprints from such scour operations were omitted from the assessment (i.e. not included in Table 9-14). The required correction to include such impacts increases the area of ‘subtidal long-term disturbance’ from 600m<sup>2</sup> to 15,000m<sup>2</sup>. This additional impact should have been considered within the assessment. However, in our opinion this additional footprint is unlikely to change the conclusion of no significant effect overall.

For landfall aspects, the ES presents a preference for horizontal directional drilling (HDD). The ES also mentions an alternative, but it is not clear whether this would require any foreshore trench excavation or if the cable duct would be surface-laid. This should be clarified by Marine Scotland and considered further as required.

#### **Annex IV. Fish of Conservation Concern**

It could be expected that potential impacts might arise from activities including those generating noise and vibration, turbidity and electro-magnetic fields (EMF). There are also other developments in the vicinity that could contribute to a cumulative impact. However, the ES states that no piling will take place and that increased turbidity due to construction would be of short duration and reduce quickly in this high energy environment. In relation to EMF, DECC has recommended that cables be buried to at least 1.5 m, depending on the suitability of the substrates (DECC, 2011). We would welcome the burial of the cable to this depth where possible, particularly in shallow waters (below 20m). We therefore agree that, with the above mitigation, there will be no significant impacts to fish of conservation concern from this proposal.

## **Annex V. Seascape, Landscape and Visual Impacts**

The development will introduce a new feature within the coastal and seascape character. At times, given the clarity of light that can be experienced and the simplicity of the (flat) horizon in this coastal location, the development may appear as a prominent new focus (as illustrated in views from Buchanhaven and Scotstown).

The development is offshore (a minimum distance of 22km) and appears as a contained development, occupying a minor proportion of the view. The local coastal character reinforces the perception of Hywind as an offshore development. At this location, off the north east 'corner' of Grampian, the sea is the dominant influence, wrapping around the land mass (as opposed to the land encircling the sea, for example within a firth). Views from the coast and immediate hinterland are wide broad panoramas of 'seascape'. We understand that the construction base is likely to be located in Norway and construction impacts will be limited to activities within the Pilot Park 25km offshore.

The distance of the development from the nearest receptors, the relatively small scale of the proposal and the character of the coastline limit the impact of the development. We therefore agree with the ES SLVIA conclusion that effects are non-significant.

SNH agree with the conclusion in the ES that the addition of the Hywind proposal to other offshore developments on the east coast, given the separation distances involved, would not result in a significant landscape or visual effect cumulatively. Furthermore, cumulative impacts of Hywind in addition to on-shore wind turbine development (for example as experienced in the coastal hinterland on the approach to Scotstown Head and at viewpoint 4 on the A950) are not significant, due to the limited effects of the Hywind project on the coastal landscape in the study area.



## **Annex VI. Environmental Management and Monitoring**

We support the commitment provided in the ES (section 21) that a Project Environmental Management Plan and Programme (PEMP) will be implemented, upon agreement of its content with the regulator, if the project is consented.

The outline of the contents of the PEMP as detailed in the commitments register (Table 21-1) is not yet comprehensive. We recommend that the following are also included as part of the PEMP, or as separate conditions:

- Employment of an ECOW - the functions of which are to be agreed, but which should include quality assurance of plans prior to submission for approval, ensuring approved plans are followed in contractors/sub-contractors' plans, conducting tool box talks and other communications affecting construction.
- An agreed Vessel Management Plan – to manage scheduled maintenance, construction and decommissioning traffic during July/August, when it is possible that post-breeding adult and chick dispersal is occurring and significant numbers of birds are at risk of being disturbed around the structures.
- An agreed operational maintenance programme aligned with the vessel management plan, identifying likely requirements of maintenance visits, to include duration, timing, access and methods employed.
- Cable burial depths of at least 1.5m, particularly for the grid connection cable, to reduce potential effects of EMF on fish of conservation concern.
- Environmental monitoring requirements (including any adaptive management requirements) for pre-construction, construction and operational periods of this development (see our further comment on this aspect below).

Statoil indicated at a pre-application meeting with SNH, JNCC and Marine Scotland that they would consider further monitoring in the interests of this being a pilot project. We would welcome further discussion as to what consideration has been given to monitoring to assist in the validation of some of the ES predictions and we offer our assistance to help identify and prioritise any monitoring. This exercise should consider the environmental impacts of this pilot project, if consented, in the context of its location and cumulative impacts with other East Coast consented windfarms.

## References

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Furness, R.W. (McArthur Green). 2015. Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Report (NECR164).

IAMMWG. 2015. Management Units for cetaceans in UK waters (January 2015). JNCC Report No. 547, JNCC Peterborough.

Joint Response from the Statutory Nature Conservation Bodies to the Marine Scotland Science Avoidance Rate Review. 25<sup>th</sup> November 2014

Johnston, A., Cook, A. S. C. P., Wright, L. J., Humphreys, E. M., Burton, N. H. K. (2014), Modelling flight heights of marine birds to more accurately assess collision risk with offshore wind turbines. *Journal of Applied Ecology*, 51: 31–41. doi: 10.1111/1365-2664.12191

Leopold, M.F., van Bemmelen, R., Zuur, A. 2013. Responses of Local Birds to the Offshore Wind Farms PAWP and OWEZ off the Dutch mainland coast. Report Number C151/12

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Vanermen N., Stienen E.W.M., Courtens W., Onkelinx T., Van de walle M. & Verstraete H. (2013). Bird monitoring at offshore wind farms in the Belgian part of the North Sea - Assessing seabird displacement effects. Rapporten van het Instituut voor Natuur- en Bosonderzoek 2013 (INBO.R.2013.755887). Instituut voor Natuur- en Bosonderzoek, Brussel.

## Crookston C (Claire)

---

**From:** [REDACTED] [REDACTED]@jrc.co.uk>  
**Sent:** 27 May 2015 18:22  
**To:** MS Marine Licensing  
**Subject:** Pilot Park (offshore near Peterhead) -- Proposed Wind Development

IMPORTANT NOTICE: This e-mail is strictly confidential and is intended for the use of the addressee only. The contents shall NOT be disclosed to any third party without permission of the JRC.

Dear Sir/Madam,

Planning Ref: Marine Licence Part 4

Name/Location: Pilot Park (offshore near Peterhead)

Total 5 turbines:

**TURBINE:**

Pilot Park T1 hub 101m blades 77m  
Grid ref DEGS 57.4843N 1.33228W

No links affected

-----

**TURBINE:**

Pilot Park T2 hub 101m blades 77m  
Grid ref DEGS 57.4907N 1.352W

No links affected

-----

**TURBINE:**

Pilot Park T3 hub 101m blades 77m  
Grid ref DEGS 57.4972N 1.37175W

No links affected

-----

**TURBINE:**

Pilot Park T4 hub 101m blades 77m  
Grid ref DEGS 57.4783N 1.35257W

No links affected

-----

TURBINE:

Pilot Park T5 hub 101m blades 77m  
Grid ref DEGS 57.4848N 1.3723W

No links affected

-----

Cleared with respect to radio link infrastructure operated by:-

Local Electricity Utility and Scotia Gas Networks

JRC analyses proposals for wind farms etc. on behalf of the UK Fuel & Power Industry and the Water Industry in north-west England. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.

In the case of this proposed wind energy development, JRC does not foresee any potential problems based on known interference scenarios and the data you have provided. However, if any details of the wind farm change, particularly the disposition or scale of any turbine(s), it will be necessary to re-evaluate the proposal.

In making this judgement, JRC has used its best endeavours with the available data, although we recognise that there may be effects which are as yet unknown or inadequately predicted. JRC cannot therefore be held liable if subsequently problems arise that we have not predicted.

It should be noted that this clearance pertains only to the date of its issue. As the use of the spectrum is dynamic, the use of the band is changing on an ongoing basis and consequently, developers are advised to seek re-coordination prior to considering any design changes.

Regards

Wind Farm Team

The Joint Radio Company Limited  
Dean Bradley House,  
52 Horseferry Road,  
LONDON SW1P 2AF

United Kingdom

TEL: +44 20 7706 5199

<[windfarms@jrc.co.uk](mailto:windfarms@jrc.co.uk)>

NOTICE:

This e-mail is strictly confidential and is intended for the use of the addressee only. The contents shall not be disclosed to any third party without permission of the JRC.

JRC Ltd. is a Joint Venture between the Energy Networks Association (on behalf of the UK Energy Industries) and National Grid.

Registered in England & Wales: 2990041

<<http://www.jrc.co.uk/about>>

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\*\*\*\*\*

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\*\*\*\*\*

Adrian Tait  
Marine Scotland Licensing  
Operations Team

By email to: [Adrian.Tait@scotland.gsi.gov.uk](mailto:Adrian.Tait@scotland.gsi.gov.uk)

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Your ref:  
Our ref: MNA/053/0037

02 July 2015

Dear Adrian

**APPLICATION FOR A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

Thank you for your email dated 5 May 2015 inviting comment on the Environmental Statement (ES) and Non-Technical Summary (NTS) for the proposed Marine Licence application to construct and operate the Hywind Scotland Pilot Park.

The MCA's remit for offshore renewable energy development is to ensure that safety of navigation is preserved, as progress is made towards government targets for renewable energy. The full ES is a necessarily large and wide ranging series of documents, this response is focused on the shipping and navigation elements of the ES and NTS, primarily the Navigation Risk Assessment (NRA).

**Survey Data**

The latest version of the MCA's *Methodology for Assessing the Marine Navigational Safety Risks of Offshore Wind Farms* document was published in 2013. The applicant should ensure the guidance in the updated document has been followed.

MGN 371 Annex 2 Paragraph 6 iii requires that hydrographic surveys should fulfil the requirements of the International Hydrographic Organisation (IHO) Order 1a standard, with the final data supplied as a digital full density data set, and survey report to the MCA Hydrography Manager. This information is yet to be submitted.

**Cumulative Impacts**

The cumulative impact assessment in chapter 17, provides a comprehensive overview. Traffic in the area although not heavy, will be displaced by the development and the effects therefore need to be carefully monitored.

## **Mooring system**

It is noted under Section 15.7.7 that a third party verification of the mooring system will be conducted and this is supported.

## **Safety Zones**

Safety Zones during the construction phase are supported, however it should be noted that a detailed justification would be required for a 50m operational safety zone, with significant evidence from the construction phase in addition to the baseline NRA required supporting the case. It should be noted that the MCA is unable to authorise or approve fishing prohibitive areas.

It should also be noted that safety zones are not applied to export cables.

There seems to be conflicting information behind the requirement for safety zones in that the applicant confirms (under section 15.7.4) the fishing industry felt they could safely manage the risks of fishing interaction with mid-water mooring lines, power cables and anchors. If this is indeed the case then the need for safety zones is negated.

## **Cable Routes**

Export cable routes, cable burial protection index and cable protections are issues that are yet to be fully developed. However due cognisance needs to address cable burial and protection, particularly close to shore where impacts on navigable water depth may become significant. 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. Existing charted anchorage areas should be avoided.

The MCA is concerned on possible wear and tear on the export cable resulting from the movement of the turbines from waves, tides and currents.

## **Emergency Response Co-operation Plans**

An Emergency Response Cooperation Plan is required to meet the requirements of MCA guidance. The template is available on the MCA website at [www.gov.uk](http://www.gov.uk). An approved ERCOP will need to be in place prior to construction.

## **Aviation Lighting**

The turbines must be lit with a single 2000 candela, red aviation light, flashing Morse 'W' in unison with all other turbines. Further consultation with the CAA and MCA should be sought by the applicant.

## **Other Proposed Mitigation Measures**

As part of their traffic monitoring plans, the applicant should clarify if they intend to install AIS receivers and how they intend to communicate with vessels e.g. if VHF radio systems are to be installed access should be provided to HM Coastguard.

The relevant authority for updating Sailing Directions is the UKHO.

The risks and mitigation of two or three line failure should be clarified. In the event of any failure, the UKHO and HMCG would need to be notified to promulgation of navigation warnings.

### **Unexploded Ordnance**

Reference could be made the The Crown Estate Guidance Note March 2010:

*Dealing with munitions in marine sediments*, available at

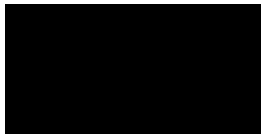
<http://www.thecrownestate.co.uk/media/5423/ei-dealing-with-munitions-in-marine-sediments.pdf>

### **Conclusion**

It is noted that the NRA does not draw any formal conclusions from its assessment; it has been used as a tool to outline impacts on traffic, its purpose purely to highlight risks, and consider any mitigation that may be appropriate in ensuring shipping will not be adversely impacted from the safety of navigation perspective.

The comments detailed above are not considered to be blocks to development, but provided to highlight areas of concern. Subject to the developer meeting requirements addressed in this letter, it provides a cautious acceptance of the licence request, detailed consent conditions will be provided once highlighted concerns are addressed.

Yours sincerely



Nick Salter  
Offshore Renewables Advisor  
Navigation Safety Branch

cc. [Joao.Queiros@scotland.gsi.gov.uk](mailto:Joao.Queiros@scotland.gsi.gov.uk)  
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# Defence Infrastructure Organisation

Your Ref. 017/OW/HYWD-11  
DIO Ref. 11159

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Marine Scotland Licensing Team  
[ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

15<sup>th</sup> June 2015

Dear Mr Tait,

**THE MARINE (SCOTLAND) ACT 2010, PART 4 MARINE LICENSING;  
THE MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), THE MARINE WORKS  
(ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

**HYWIND SCOTLAND PILOT PARK OFFSHORE FLOATING WIND TURBINE PROJECT IN THE  
BUCHAN DEEPS, 25 MILES FROM PETERHEAD, SCOTLAND**

I am writing in response to your email sent on 5<sup>th</sup> May 2015 advising that on 27<sup>th</sup> March 2015, Hywind (Scotland) Limited (HSL) applied to the Scottish Ministers for a marine license to deposit and construct a floating offshore wind demonstration project known as Hywind Scotland Pilot Park (comprising five 6 MW wind turbines) at the Buchan Deeps, approximately 25km off the coast of Peterhead.

The Ministry of Defence (MOD) objected to the above application in a letter to Marine Scotland dated 9<sup>th</sup> January 2015. The MOD objected on the grounds that the proposed development would have an adverse impact upon the Air Defence radar at the Remote Radar Head (RRH) Buchan. The MOD noted that if the developer is able to overcome these unacceptable impacts that the turbines should be fitted with appropriate aviation lighting.

The MOD also advised in the 9<sup>th</sup> January 2015 letter, that there had been discussions with the applicant since the submission of this objection letter with a view to reaching agreement on appropriate mitigation to address the unacceptable impacts of this development. The updated MOD position is set out below:

**RRH Buchan**

The applicant submitted a technical proposal to mitigate the unacceptable affects of the proposed development on the Air Defence radar at RRH Buchan in November 2014. The proposal has been accepted by the MOD, and a planning condition has been agreed with the applicant. A draft is included at Annex A for Marine Scotland's consideration.

## Aviation Lighting

In the objection letter of 9<sup>th</sup> January 2015, the MOD identified that if the developer is able to overcome the radar issue, the MOD will request that turbines be lit for aviation purposes. On this basis, the MOD has agreed a suitable planning condition with the applicant and a draft is included at Annex A for Marine Scotland's consideration.

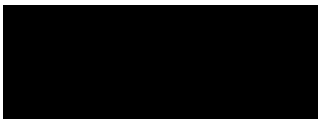
In light of the above, the MOD would be prepared to remove its objection to this application subject to appropriate conditions being imposed upon the consent, if granted. Should Marine Scotland be minded to amend any of the conditions in Annex A, the MOD would welcome the opportunity to discuss these amendments.

If planning permission is granted, the MOD would like to be advised of the following information;

- The date construction starts and ends;
- The maximum height of construction equipment;
- The latitude and longitude of the turbine erected

Please do not hesitate to contact me should you require any additional information, or should you wish to discuss matters.

Yours faithfully



Marie Neenan  
Senior Safeguarding Officer

**Enc. Annex A**

## **Annex A**

## **Annex A**

### Air Defence Radar

No development shall commence unless and until an Air Defence Radar Mitigation Scheme ("the ADRM scheme") has been submitted to and approved in writing by the Consenting Authority.

For the purposes of this condition, the ADRM Scheme means a detailed scheme to mitigate the adverse impacts of the Development on the air defence radar at Remote Radar Head (RRH) Buchan and the air surveillance and control operations of the MOD. The scheme will set out the appropriate measures to be implemented to that end.

No turbines shall become operational until:

- (a) the mitigation measures which the approved ADRM Scheme requires to be implemented prior to the operation of the turbines have been implemented; and
- (b) any performance criteria specified in the approved ADRM Scheme and which the approved ADRM Scheme requires to have been satisfied prior to the operation of the turbines have been satisfied.

The Company shall thereafter comply with all other obligations contained within the approved ADRM Scheme for the duration of the operation of the Development.

### Aviation Lighting

The Company shall install MOD-accredited 200 candela omni-directional aviation lighting and infra – red warning lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration at the highest practicable point on the turbines. The turbines will be erected with this lighting installed and the lighting will remain operational throughout the duration of this consent.



# Defence Infrastructure Organisation

Your Ref. 017/OW/HYWD-11  
DIO Ref. 11159

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15<sup>th</sup> June 2015

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THE MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), THE MARINE WORKS  
(ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

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I am writing in response to your email sent on 5<sup>th</sup> May 2015 advising that on 27<sup>th</sup> March 2015, Hywind (Scotland) Limited (HSL) applied to the Scottish Ministers for a marine license to deposit and construct a floating offshore wind demonstration project known as Hywind Scotland Pilot Park (comprising five 6 MW wind turbines) at the Buchan Deeps, approximately 25km off the coast of Peterhead.

The Ministry of Defence (MOD) objected to the above application in a letter to Marine Scotland dated 9<sup>th</sup> January 2015. The MOD objected on the grounds that the proposed development would have an adverse impact upon the Air Defence radar at the Remote Radar Head (RRH) Buchan. The MOD noted that if the developer is able to overcome these unacceptable impacts that the turbines should be fitted with appropriate aviation lighting.

The MOD also advised in the 9<sup>th</sup> January 2015 letter, that there had been discussions with the applicant since the submission of this objection letter with a view to reaching agreement on appropriate mitigation to address the unacceptable impacts of this development. The updated MOD position is set out below:

**RRH Buchan**

The applicant submitted a technical proposal to mitigate the unacceptable affects of the proposed development on the Air Defence radar at RRH Buchan in November 2014. The proposal has been accepted by the MOD, and a planning condition has been agreed with the applicant. A draft is included at Annex A for Marine Scotland's consideration.

## Aviation Lighting

In the objection letter of 9<sup>th</sup> January 2015, the MOD identified that if the developer is able to overcome the radar issue, the MOD will request that turbines be lit for aviation purposes. On this basis, the MOD has agreed a suitable planning condition with the applicant and a draft is included at Annex A for Marine Scotland's consideration.

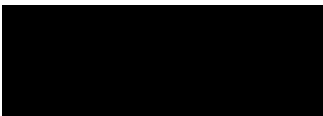
In light of the above, the MOD would be prepared to remove its objection to this application subject to appropriate conditions being imposed upon the consent, if granted. Should Marine Scotland be minded to amend any of the conditions in Annex A, the MOD would welcome the opportunity to discuss these amendments.

If planning permission is granted, the MOD would like to be advised of the following information;

- The date construction starts and ends;
- The maximum height of construction equipment;
- The latitude and longitude of the turbine erected

Please do not hesitate to contact me should you require any additional information, or should you wish to discuss matters.

Yours faithfully



Marie Neenan  
Senior Safeguarding Officer

**Enc. Annex A**

## **Annex A**

## **Annex A**

### Air Defence Radar

No development shall commence unless and until an Air Defence Radar Mitigation Scheme ("the ADRM scheme") has been submitted to and approved in writing by the Consenting Authority.

For the purposes of this condition, the ADRM Scheme means a detailed scheme to mitigate the adverse impacts of the Development on the air defence radar at Remote Radar Head (RRH) Buchan and the air surveillance and control operations of the MOD. The scheme will set out the appropriate measures to be implemented to that end.

No turbines shall become operational until:

- (a) the mitigation measures which the approved ADRM Scheme requires to be implemented prior to the operation of the turbines have been implemented; and
- (b) any performance criteria specified in the approved ADRM Scheme and which the approved ADRM Scheme requires to have been satisfied prior to the operation of the turbines have been satisfied.

The Company shall thereafter comply with all other obligations contained within the approved ADRM Scheme for the duration of the operation of the Development.

### Aviation Lighting

The Company shall install MOD-accredited 200 candela omni-directional aviation lighting and infra – red warning lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration at the highest practicable point on the turbines. The turbines will be erected with this lighting installed and the lighting will remain operational throughout the duration of this consent.

## Crookston C (Claire)

---

**From:** Stainer P (Paul) (MARLAB)  
**Sent:** 07 July 2015 14:00  
**To:** Queiros J (Joao)  
**Subject:** Fw: 2015-05-11 - 017/OW/HYWD-11 - Hywind Scotland Pilot Park Project - Environmental Statement - April 2015

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

----- Original Message -----

From: Robertson M (Mike) (MARLAB)  
Sent: Tuesday, July 07, 2015 12:36 PM  
To: Stainer P (Paul) (MARLAB)  
Subject: RE: 2015-05-11 - 017/OW/HYWD-11 - Hywind Scotland Pilot Park Project - Environmental Statement - April 2015

Paul,

I have no comments to make on this document .

Mike

M. R. Robertson  
Senior Marine Ecologist  
Renewables and Energy  
Marine Scotland Science

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen AB11 9DB

Tel: +44 (0) 1224 295433  
S/B: +44 (0) 1224 876544  
FAX: +44 (0) 1224 295511

Email: [mike.robertson@scotland.gsi.gov.uk](mailto:mike.robertson@scotland.gsi.gov.uk)  
Web: <http://www.gov.scot/marinescotland>

-----Original Message-----

From: Stainer P (Paul) (MARLAB)  
Sent: 30 June 2015 15:26  
To: O'Hara Murray R (Rory) (MARLAB); Brookes K (Kate); Wilson J (Jared); Robertson M (Mike) (MARLAB)  
Subject: FW: 2015-05-11 - 017/OW/HYWD-11 - Hywind Scotland Pilot Park Project - Environmental Statement - April 2015

Good Afternoon

Comments for this one are due on 03 July 2015.

Please let me know if you do not plan to comment.

Regards

Paul Stainer  
MSS

-----Original Message-----

From: Stainer P (Paul) (MARLAB)

Sent: 11 May 2015 11:57

To: Gardiner R (Ross) (MARLAB); Robertson M (Mike) (MARLAB); Kafas A (Andronikos); McLay A (Anne) (MARLAB); Wright P (Peter) (MARLAB); MS FFPlanning; O'Hara Murray R (Rory) (MARLAB); Brookes K (Kate); Bennet F (Finlay); Wilson J (Jared); Anson S (Sam); Hall C (Chris)

Subject: 2015-05-11 - 017/OW/HYWD-11 - Hywind Scotland Pilot Park Project - Environmental Statement - April 2015

APPLICATION FOR A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK

On the 27th March 2015, Hywind (Scotland) Limited (HSL) applied to the Scottish Ministers for a marine licence to deposit and construct a floating offshore wind demonstration project known as the Hywind Scotland Pilot Park (comprising five 6 MW wind turbines) at the Buchan Deeps, approximately 25 km off the coast of Peterhead. This application is supported by an environmental statement ("ES").

A marine licence has been requested under the above Acts to undertake the deposit and construction of a floating offshore wind farm and cable laying works at a location below the level of Mean High Water Springs. Licence application details are summarised below:

MS-LOT have requested any comments you have by 16 June 2015.

If you do not wish to comment or cannot meet the deadline please let me know as soon as possible.

Regards

Paul Stainer  
Marine Scotland Science



Joao Queiros  
Licensing Operations Team  
Marine Scotland  
375 Victoria Road  
Aberdeen  
AB11 9DB



**017/OW/HYWD-11**

## **HYWIND SCOTLAND PILOT PARK PROJECT ENVIRONMENTAL STATEMENT – MARINE SCOTLAND SCIENCE COMMENTS**

Marine Scotland Science has reviewed the submitted environmental statement and has provided the following comments.

### **Marine Scotland Science comments on marine mammals**

Marine Scotland Science has no comments on marine mammals.

### **Marine Scotland Science comments on ornithology**

Marine Scotland Science has no comments on ornithology.

### **Marine Scotland Science comments on benthic ecology**

Marine Scotland Science has no comments on benthic ecology.

### **Marine Scotland Science comments on fish ecology and commercial fisheries**

This looks like a very thorough job supported by a lot of survey data and researched information. The methods used are well described and referenced and although there are now some additional sources of information, e.g. on recently published on fisheries sensitivities, <http://www.gov.scot/Resource/0046/00465795.pdf> we do not think these will affect the overall conclusions.

We agree with the assessments of impact significance in Chapter 10 and most of those in Chapter 14.

With respect to potential effects of the export cable route on the inshore fishing area (page 14-28), we would consider the magnitude of effect (as described in Table 14\_10) would be *Moderate* as opposed to *Minor*. This mainly because of the type of fishing and limited opportunities for small boats to place static gear elsewhere.

Cumulative and in combination effects on loss of fishing grounds due to this and other (larger) wind farm developments proposed in the sea area are alluded to. There are, however, no agreed criteria to assess or evaluate these at present. The proposed development has a relatively small footprint. We note comments that the SFF are supportive of the project.

### **Marine Scotland Science comments on commercial fisheries**

The identified commercial fisheries data sources, baseline characterisation strategy, impact identification and assessment strategies, and proposed mitigation measure proposals have been found suitable with regards to meeting the Environmental Impact Assessment requirements.

Additions include:

Various sections of the ES state that depending on seabed conditions along the export cable corridor it may not be possible to bury the full length of cable to the desired depth. Where it is not possible to bury the cable, additional protection measures (e.g. rock placement, mattresses or sand/ grout bags) may be required to protect the cable. A worst case scenario of a maximum of 2 km of cable requiring protection is used. After completing geophysical/ geotechnical surveys, developers are requested to provide MS with a map of annotated cable sections with both expected burial depths and proposed protection method overlaid with fishing activity. The same map should be used to facilitate follow-up discussions with the fishing industry before construction. Additional mitigation measure may include consultation with the fishing industry to decide on fishing-gear-friendly cable protection measures.

Pelagic fishing activity has been identified along the export cable corridor. Additional mitigation measure should include minimising the temporal overlap between construction timing of the export cable and peak seasonality of herring and mackerel fishing activities (e.g. avoid August for herring fisheries as indicated in figures 14-12 & 14-13). Similar consideration should be given to Peterhead Harbour activity.

Table Summary of consultation activities (14-2) has no reference to consultation events with the inshore static gear fleet. It is likely that SFF may not represent these fleets. Entries on 'local stakeholders' and 'various stakeholders' should be more explicit, e.g. consultation with other local fishermen's associations and fish producers' organisations.

It is stated that discussions around safety zones and/ or fishing prohibition are still on-going with regulators and stakeholders. Furthermore, Statoil is in the process of establishing a project with the objective to look at what activities can be carried out within a floating wind farm and how the area can be used positively in a biological and commercial manner. In light of future (potentially larger) floating wind developments, MS should be involved in this discussions. The FLOWW group (MS is a member) might be an appropriate forum to present initial outputs from this project.

### **Marine Scotland Science comments on physical environment**

MSS have reviewed the physical processes section of the ES (chapter 8), and have no concerns. The main areas of potential impact are scour around the anchors and cable corridor (if HDD is not used), and the potential for added suspensions and erosions during the construction of the cable corridor (again if HDD is not used). These issues are adequately assessed in the ES.

### **Marine Scotland Science comments on diadromous fish**

In view of this being a relatively small floating development, we are not anticipating any major issues with either constructional or operational noise. However, we note reference to an underwater noise technical assessment by Xodus (do MS-LOT have a copy available ?).

Likewise, we do not anticipate any major issues with EMF during operation, particularly in view of the export cable being buried up to a depth of 1.5 m where possible - which will hopefully include close inshore where the chances of interaction with migratory fish are greater. However, we did not notice any mention of any EMF study and little information is presented in 10.7.3 on the basis of the anticipated field strengths and it would have been better if this had been clearer.

There is an assumption in the lead in to Section 10 FISH AND SHELLFISH ECOLOGY that migratory species are only expected to transit the inshore areas of the export cable corridor. This is not likely to be correct, they could transit anywhere in the development.

Table 10-7 details what are said to be the sensitive periods for the diadromous species. The periods identified are not comprehensive. The entries for salmon, sea trout and lampreys only cover the emigrating smolts (salmon and sea trout) and transformers (lamprey). Later stages, including adults, could be present at any time of the year.

The River Ugie is directly to the north of the cable landfall area. We assume that there will be no direct interference with any coastal net fisheries for salmon or sea trout, although this didn't appear to be stated.

The ES reports (10.3) that JNCC and SNH do not consider that the proposals will have an impact on migratory fish species which are qualifying interests of freshwater SACs. We did not note any formal HRA material. If there is any decision that one is to be done in relation to any salmon or lamprey SACs.

#### **Marine Scotland Science comments on aquaculture**

MSS have no further comments to add to those made in July 2013 in response to the consultation request for the Hywind Scotland Pilot Park Screening Opinion.

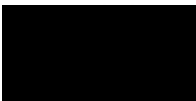
#### **Marine Scotland Science comments on socio economics**

The indicators assessed - predominantly GVA and employment - are the ones we would expect to see. There is insufficient information contained within the report for us to be able to determine whether the estimates appear plausible or otherwise.

The two scenarios presented also differ fairly significantly with no indication of which is the most likely.

Hopefully these comments are helpful to you. If you wish to discuss any matters further contact the MSS Renewables in-box [MS\\_Renewables@scotland.gsi.gov.uk](mailto:MS_Renewables@scotland.gsi.gov.uk).

Yours sincerely



**Paul Stainer**

Marine Scotland Science

03 July 2015

## Crookston C (Claire)

---

**From:** [REDACTED]@nats.co.uk> on behalf of NATS Safeguarding  
<NATSSafeguarding@nats.co.uk>  
**Sent:** 05 May 2015 15:36  
**To:** MS Marine Licensing  
**Subject:** FW: Consultation on Marine Licence Application - Hywind Scotland Pilot Park -  
(Our Ref: SG18232)  
**Attachments:** 18232\_Tech & Op Assess\_final\_v2.doc

We refer to the application above. The proposed development has been examined by our technical safeguarding teams and conflicts with our safeguarding criteria.

Accordingly, NATS (En Route) plc objects to the proposal. The reasons for NATS's objection are outlined in the attached report TOPA **SG18232**.

We would like to take this opportunity to draw your attention to the legal obligation of local authorities to consult NATS before granting planning permission for a wind farm. The obligation to consult arises in respect of certain applications that would affect a technical site operated by or on behalf of NATS (such sites being identified by safeguarding plans that are issued to local planning authorities).

In the event that any recommendations made by NATS are not accepted, local authorities are obliged to follow the relevant directions within Planning Circular 2 2003 - Scottish Planning Series: Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) (Scotland) Direction 2003 or Annex 1 - The Town And Country Planning (Safeguarded Aerodromes, Technical Sites And Military Explosives Storage Areas) Direction 2002.

These directions require that the planning authority notify both NATS and the Civil Aviation Authority ("CAA") of their intention. As this further notification is intended to allow the CAA to consider whether further scrutiny is required, the notification should be provided prior to any granting of permission.

It should also be noted that the failure to consult NATS, or to take into account NATS's comments when determining a planning application, could cause serious safety risks for air traffic.

Should you have any queries please contact us using the details below.

Yours faithfully

[REDACTED]  
NATS Safeguarding  
[natssafeguarding@nats.co.uk](mailto:natssafeguarding@nats.co.uk)

---

**From:** Adrian.Tait@scotland.gsi.gov.uk [mailto:Adrian.Tait@scotland.gsi.gov.uk]  
**Sent:** 05 May 2015 10:12  
**To:** Joao.Queiros@scotland.gsi.gov.uk  
**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park - SG18232

Dear Sir / Madam,

**MARINE (SCOTLAND) ACT 2010**

**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**

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

**APPLICATION FOR:**

- **A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

On the 27th March 2015, Hywind (Scotland) Limited (HSL) applied to the Scottish Ministers for a marine licence to deposit and construct a floating offshore wind demonstration project known as the Hywind Scotland Pilot Park (comprising five 6 MW wind turbines) at the Buchan Deep, approximately 25 km off the coast of Peterhead. This application is supported by an environmental statement ("ES").

A marine licence has been requested under the above Acts to undertake the deposit and construction of a floating offshore wind farm and cable laying works at a location below the level of Mean High Water Springs. Licence application details are summarised below:

Name and address of applicant:	Hywind Scotland Limited 1 Kingdom Street London W2 6BD
Location of deposits:	Off the coast of Peterhead, in an area bounded by the following coordinates:

Latitude (WGS84)	Longitude (WGS84)	Latitude (WGS84)	Longitude (WGS84)
1 23.033' W	57 30.302' N	1 41.890' W	57 31.486' N
1 19.542' W	57 29.715' N	1 44.102' W	57 31.485' N
1 18.691' W	57 29.023' N	1 46.569' W	57 30.679' N
1 22.797' W	57 27.603' N	1 47.374' W	57 30.959' N
1 23.762' W	57 28.416' N	1 44.467' W	57 31.773' N
1 23.573' W	57 29.989' N	1 41.780' W	57 31.764' N
1 24.430' W	57 29.317' N	1 37.620' W	57 30.444' N
1 32.779' W	57 29.632' N	1 22.455' W	57 29.478' N
1 35.138' W	57 29.800' N	1 46.027' W	57 31.023' N
1 37.804' W	57 30.184' N	1 46.604' W	57 30.825' N
		1 46.673' W	57 30.919' N

As required by the above legislation, details of the applications must be published for two consecutive weeks in the local press. Notices will appear in The Scotsman, The Fishing News, The Edinburgh Gazette and The Buchan Observer.

The above legislation allows for representation to be made to Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **16<sup>th</sup> June 2015**. If you wish to submit a response, please send to: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

If you have no comments to make, please submit a 'nil return' response. If you require an extension to the consultation deadline I would be grateful if you let us know before the deadline date.

A copy of the ES will be sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact Marine Scotland Licensing Operations Team as soon as possible.

We would also be grateful if you would acknowledge receipt of this email.

Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

\*\*\*\*\*

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

\*\*\*\*\*

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NATS means NATS (En Route) plc (company number: 4129273), NATS (Services) Ltd (company number 4129270), NATSNAV Ltd (company number: 4164590) or NATS Ltd (company number 3155567) or NATS Holdings Ltd (company number 4138218). All companies are registered in England and their registered office is at 4000 Parkway, Whiteley, Fareham, Hampshire, PO15 7FL.

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has been swept for the presence of computer viruses.

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Marine Scotland  
Scottish Government  
Marine Laboratory  
PO Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

## **NATS Safeguarding Office**

Corporate & Technical Centre  
4000 Parkway  
Whiteley  
Fareham PO15 7FL

☎: 01489 444687  
✉: [natssafeguarding@nats.co.uk](mailto:natssafeguarding@nats.co.uk)  
🌐: [www.nats.co.uk/windfarms](http://www.nats.co.uk/windfarms)

3<sup>rd</sup> July 2015

NATS CRM/Ref: **3755 / SG18232**  
Sent via email: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

Dear Sir/Madam,

### **Hywind Wind Farm 017/OW/HYWD-11**

We refer to the application submitted by the Developer dated 21 April 2015 for the construction of five (5) turbines. NERL has objected to the proposed development as its assessment is that the development will cause an adverse impact to the Perwinnes radar and associated air traffic operations of NATS (EnRoute) pic ("NERL") without suitable mitigation.

An agreement has been entered into between NERL and Hywind (Scotland) Limited dated 2<sup>nd</sup> June 2015 for the agreement of suitable planning conditions and the implementation of an identified and defined mitigation solution in relation to the development that will be implemented under agreement. In summary, such mitigation solution will require works to be carried out to NERL's infrastructure and comprises a modification to the radar system.

NERL is therefore prepared to withdraw its objection to the application subject to the imposition of the agreed conditions set out below that have been agreed with the developer:

- 1 No part of any turbine shall be erected above ground until a Primary Radar Mitigation Scheme agreed with the Operator has been submitted to and approved in writing by Marine Scotland in order to avoid the impact of the development on the Primary Radar of the Operator located at Perwinnes and associated air traffic management operations.
- 2 No part of any turbine shall be erected above ground until the approved Primary Radar Mitigation Scheme has been implemented and the development shall thereafter be operated fully in accordance with such approved Scheme.



For the purpose of conditions 1 and 2 above;

**"Operator"** means NATS (En Route) plc, incorporated under the Companies Act (4129273) whose registered office is 4000 Parkway, Whiteley, Fareham, Hants PO15 7FL or such other organisation licensed from time to time under sections 5 and 6 of the Transport Act 2000 to provide air traffic services to the relevant managed area (within the meaning of section 40 of that Act).

**"Primary Radar Mitigation Scheme" or "Scheme"** means a detailed scheme agreed with the Operator which sets out the measures to be taken to avoid at all times the impact of the development on the Perwinnes primary radar and air traffic management operations of the Operator.

Please acknowledge receipt of this letter.

Yours faithfully

A black rectangular box redacting the signature of the representative of NATS (En-Route) plc.

For and on behalf of NATS (En-Route) plc

**Hywind (Scotland) Limited  
One Kingdom Street  
London  
W2 6BD**

**Marine Scotland  
Scottish Government  
Marine laboratory  
PO Box 101  
375 Victoria Roas  
Aberdeen  
AB11 9DB**

Dear Sir,

**RE: APPLICATION FOR HYWIND WIND FARM DATED 21 April 2015 ("APPLICATION")**

We refer to the letter sent by NATS (En Route) plc ) ("**NERL**") on 3<sup>rd</sup> July 2015 confirming the withdrawal of its objection to the above Application subject to the imposition of the conditions set out in that letter.

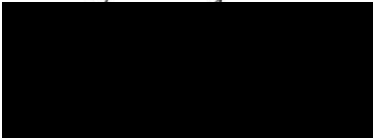
This letter is to confirm that Hywind (Scotland) Limited accepts the need for and has agreed with NERL that the conditions set out in NERL's letter should be attached to any consent granted pursuant to the above Application.

Yours faithfully

  
Stakeholder Manager

For and on behalf of Hywind (Scotland) Limited

Kind regards

  
Stakeholder Manager  
Hywind Scotland Pilot Park

# Northern Lighthouse Board

**CAPTAIN PHILLIP DAY**  
**DIRECTOR OF MARINE OPERATIONS**

Your Ref: Xodus – A-100142-S35-LETT-006  
Our Ref: AJ/OPS/ML/O6\_14\_263

84 George Street  
Edinburgh EH2 3DA  
Switchboard: 0131 473 3100  
Fax: 0131 220 2093  
Website: [www.nlb.org.uk](http://www.nlb.org.uk)  
Email: [enquiries@nlb.org.uk](mailto:enquiries@nlb.org.uk)



Joao Queiros  
Marine Renewables Casework Officer  
Marine Scotland Licensing Operations Team  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

17 June 2015

Dear Joao,

## **MARINE (SCOTLAND) ACT 2010, PART 4 MARINE LICENSING**

We are in receipt of an Environmental Statement in support of a Marine Licence application submitted by the Xodus Group on behalf of **Statoil Wind Limited** to develop the Hywind Scotland Pilot Park Offshore Floating Wind Turbine Project within the Buchan Deeps area east of Peterhead.

We are content with the findings within the Environmental Statement and note the information contained within the Navigation Risk Assessment (NRA) carried out by Anatec on behalf of the developers.

The NLB has no significant concerns regarding the proposed development. We note that there is no requirement for a Meteorological Mast or an Offshore Sub-Station within the offshore site and also that the five turbines will be connected to pre-installed moorings and cables all within one area to the North West of the Forties oil export pipeline system.

We would advise that the marking and lighting of the wind turbines and the subsea infrastructure should include all three phases of the wind farm deployment.

### Construction Phase

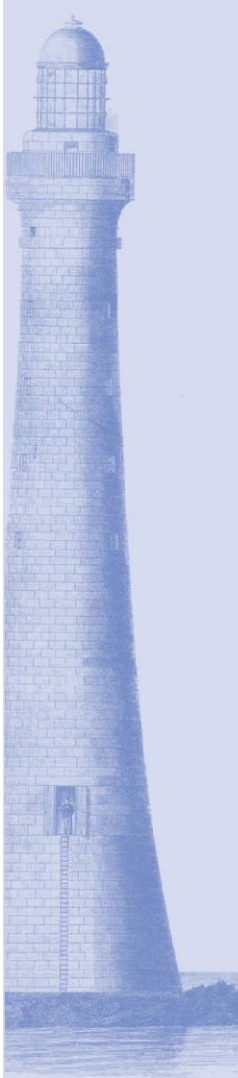
To ensure that mariners are adequately warned of the construction site and progress, regular Notice(s) to Mariners and Radio Navigation Warnings should be promulgated stating the nature and duration of any marine operation within the site.

We would also require the site area to be charted including a chart note describing the nature of the works. We would require the developer to inform the UKHO and provide all relevant information to the Hydrographer.

During this construction phase, any vessel engaged in these works shall be marked in accordance with the International Rules for the Prevention of Collisions at Sea whilst under way, and in accordance with the Standard Marking Schedule for Offshore structures if secured to the seabed.

## For the safety of all

Certified to: ISO 9001:2000 · The International Safety Management Code (ISM) · OHSAS 18001



17 June 2015

Joao Queiros

### Construction Phase (Contd)

During consultation meetings with the developer, NLB have advised that there would be no requirement to mark the area, nor any subsea infrastructure such as mooring chains or anchors deployed prior to the arrival of the turbines, with surface buoyage. If the developer wishes to implement marking and lighting, NLB would advise on the type and number in further discussions.

The export cable from the site to the grid connection at Peterhead will not require to be brought to the surface and across the shoreline. It will therefore not be necessary to provide any cable marker board or lighting at the shore side.

### Operational Phase

The number and position of the turbines is such, that on this occasion and in agreement with the developer, all turbine devices shall be designated as Significant Peripheral Structures (SPS) and marked as such in that:

- The tower of every wind generator should be painted yellow all round from the waterline to 15 metres or the height of the Aid to Navigation, whichever is greater.
- The structures shall have lights visible from all directions in the horizontal plane. These lights should all be synchronised to display a character of one yellow flash every 5 seconds, with a range of not less than 5 nautical miles.
- All lights shall be placed not less than 6 metres and not more than 30 metres above the waterline.
- Given the small number of turbines and the small area of deployment a sound signal shall be attached to turbine HS2 as to be audible upon approaching the wind farm from any direction. The sound signal should be placed not less than 6 metres and not more than 30 metres above the waterline and should have a range of at least 2 nautical miles. The character shall be rhythmic blasts corresponding to Morse letter 'U' every 30 seconds. The minimum duration of the short blast shall be 0.75 seconds. The sound signal shall be operated when the meteorological visibility is two nautical miles or less.
- Each tower shall display identification panels with black letters or numbers one metre high on a yellow background visible in all directions. These panels shall be easily visible in daylight as well as at night, by the use of illumination or retro-reflecting material.
- All navigation lights should have an availability of not less than 99.8% (IALA Category 1) over a rolling three year period. The sound signal should have an availability of not less than 97% (IALA Category 3) over a rolling three year period.
- AIS as an Aid to Navigation should be fitted to turbines HS1 and HS3. Appropriate MMSI numbers will be allocated by OFCOM.

17 June 2015

Joao Queiros

Decommissioning Phase

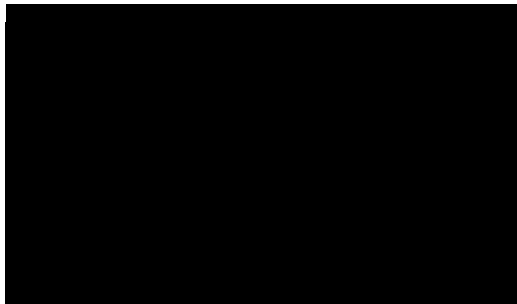
The NLB would require to be consulted on the manner and process in which the site, devices and the subsea infrastructure is to be removed at the end of its deployment.

General

Appropriate means of ensuring the required IALA Availability target for Category 1 AtoN is achieved through redundancy, monitoring and repair must be in place, and arrangements made to warn the mariner promptly of any AtoN fault and its subsequent return to fully operational service. The licence holder will be expected co-operate fully in this matter.

All navigational marking and lighting required for the site or its associated marine infrastructure will require the Statutory Sanction of the Northern Lighthouse Board prior to deployment.

Please advise if we can be of any further assistance, or if clarification of any of the above is required.



## Crookston C (Claire)

---

**From:** Master Hrossey <Master.Hrossey@northlinkferries.co.uk>  
**Sent:** 30 May 2015 09:03  
**To:** MS Marine Licensing  
**Subject:** MV Hrossey (Northlink ferries)

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good Morning,

We have no issues with your proposed development.

Best Regards

[REDACTED]

[REDACTED]

Master  
MV Hrossey

[REDACTED]

---

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Adrian Tait (Marine Renewables Licensing Manager)  
Marine Scotland  
Marine Laboratory  
PO Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

3<sup>rd</sup> July 2015

Dear Mr Tait,

**MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND  
UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND  
CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

RSPB Scotland recognises the significant contribution floating offshore wind could make to achieving a low carbon energy mix in Scotland and globally. A potential major benefit is the opportunity to site arrays further offshore in deeper waters where there are likely fewer ecological sensitivities and greater siting flexibility.

However, in spite of RSPB's overarching support for such technologies this application must unfortunately be considered in the context of the eight commercial scale offshore wind sites that were granted consent in 2014 in the firths of Moray, Forth and Tay. RSPB Scotland hold major reservations over the environmental assessments supporting these consents and are extremely concerned about the cumulative and in-combination impacts to important and internationally protected seabird populations, specifically on Scotland's east coast. The consents for four of these developments (those in the Forth and Tay region including Inch Cape, Seagreen Alpha and Bravo and Neart na Gaoithe) are currently subject to judicial review. Should these existing consents remain unchanged, **RSPB Scotland object to the Hywind application for the following reasons** and further detail of our concerns are provided in the attached annex:

- The cumulative and in-combination environmental impacts, arising primarily from existing consents for offshore wind in the Forth and Tay, are unacceptable and inappropriate environmental assessment methods have been relied upon.
- Impacts on draft marine Special Protection Areas (dSPAs) have not been considered.

We appreciate that many of the issues we raise are beyond the control of the applicant. However, a significant scale of offshore wind development is now consented in Scotland and a number of seabird colonies are at risk of significant and unacceptable cumulative and in-combination impacts. A more precautionary approach

**Scotland Headquarters**

2 Lochside View  
Edinburgh Park  
Edinburgh  
EH12 9DH

**Tel** 0131 317 4100

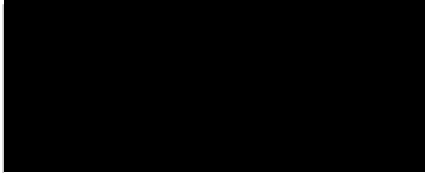
**Fax** 0176 768 5008

[rspb.org.uk](http://rspb.org.uk)

to consenting would have supported, within acceptable environmental limits, progression of a smaller yet significant scale of traditional fixed foundation commercial scale wind alongside innovative test and demonstration projects such as Hywind.

Should the existing Forth and Tay consents change such that their impacts reduce significantly then RSPB Scotland would be happy to review our current objection to the Hywind project and it is likely that we may be able to reconsider our position.

Yours sincerely,

A large black rectangular redaction box covering the signature area.

  
**Conservation Manager**  
**East Scotland Regional Office**



## **ANNEX: RSPB SCOTLAND'S POSITION ON HYWIND APPLICATION JULY 2015**

### **Cumulative and in-combination environmental impacts and use of inappropriate environmental assessment methods**

Cumulative and in-combination environmental impacts of existing consented offshore wind developments are likely to result in unacceptable harm to seabird populations in the region. The Hywind proposal will cause additional adverse impact on these populations.

One specific concern is for kittiwake. Nationally kittiwakes have declined by 76% since 1986, with a UK decline of 71% over the same period. In this context the most recent site condition assessment for kittiwake at Fowlsheugh (favourable maintained recorded in 1999) is outdated and is an unreliable baseline reference for the Hywind environmental assessment. RSPB's own monitoring programme for our nature reserve at Fowlsheugh, which is located within and contributes to the SPA, illustrates a trend consistent to that of the national decline. Between 1999 – 2012 the RSPB reserve has seen an annual change of -3.6% in the kittiwake population.

In the absence of a commitment by Scottish Ministers to better understand and address these and other national declines and fulfil the conservation objectives of the Natura 2000 network, we are unable to support the consenting of yet further development that will have an additive adverse impact on a steeply declining and internationally important population.

A significant effect on Special Protection Areas (SPAs) cannot be ruled out. The Scottish Ministers, as competent authority, must therefore carry out an Appropriate Assessment (AA) under the Conservation (Natural Habitats & c.) Regulations 1994 (as amended) (the Habitats Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) (the Offshore Habitats Regulations), before considering the possibility of granting consent.

The Hywind Habitats Regulations Appraisal (HRA) document makes use of the regional Appropriate Assessment undertaken for the Firth of Forth projects. These projects would have very substantial impacts on seabirds and the consents are all subject to judicial review so it would be prudent not to rely on methods and approaches applied and conclusions made in these instances.

The Hywind assessment uses MSS' Acceptable Biological Change (ABC) approach. Impact thresholds for seabird SPA populations, including for kittiwake, guillemot and razorbill were established for the Firth of Forth region, including for those same receptor populations relevant to the Hywind proposal. There are fundamental problems with the use of ABC as a tool for establishing whether or not a project/projects have an adverse effect on the integrity of an SPA. These thresholds are wholly inappropriate and should not be relied upon in the Hywind assessment.

In light of the above, it is unlikely that it will be possible for Ministers to conclude beyond reasonable scientific doubt that in-combination impacts will not cause an adverse effect on the integrity of Fowlsheugh, Buchan Ness to Collieston and Forth Islands SPAs.

We also note that the Statutory Nature Conservation Bodies (SNCBs) have already effectively advised that a conclusion of no adverse effect on the integrity of the SPAs

could not be reached as a result of the impacts that would arise from the consented offshore wind projects in the Forth of Forth.

In effect, the projects already consented in the Firth of Forth have more than used up any available ecological 'headroom' leaving no scope for further consents that would result in additional impacts.

**Lack of assessment of draft SPAs**

The Hywind application and assessment has not considered the potential impacts on the suite of marine draft Special Protection Areas in Scottish waters. RSPB Scotland recommend that the implications of this development for the draft SPAs are fully considered. In any event, these dSPAs will be the subject of a Scottish Government consultation, likely to be initiated in July 2015, at which point the project's HRA/ AA will need to be revised and assessments undertaken. Undertaking an assessment at this stage would reduce any procedural risk to the project.

## Crookston C (Claire)

---

**From:** Tait A (Adrian) (MARLAB)  
**Sent:** 18 June 2015 17:35  
**To:** [REDACTED]@statoil.com; [REDACTED]  
**Cc:** Queiros J (Joao)  
**Subject:** RYA Scotland response on Hywind Applicaion

Hi [REDACTED],

RYA Scotland have provided their response, as below. Essentially, they note that they have had input into the NRA and have no objections.

Have a good evening,

Adrian

**Adrian Tait**

[marinescotland](#)

Marine Renewables Licensing Manager  
Marine Scotland Licensing Operations Team  
Scottish Government  
Marine Laboratory | 375 Victoria Road  
Aberdeen, AB11 9DB  
Phone: 01224 295 668 | 07557 848 720

---

**From:** [REDACTED]@ryascotland.org.uk]  
**Sent:** 18 June 2015 16:10  
**To:** Tait A (Adrian) (MARLAB)  
**Subject:** RE: One week before reminder - Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Hi Adrian,

I now have a response, please see below.

We have had input to the Navigational Risk Assessment and RYA Scotland have no objections to the licence being given.

Kind Regards

[REDACTED]

[REDACTED]

Senior Administrator  
Royal Yachting Association Scotland

T: 0131 [REDACTED]  
E: [REDACTED]@ryascotland.org.uk



RYA Scotland, Caledonia House, 1 Redheughs Rigg, South Gyle, Edinburgh, EH12 9DQ  
[www.ryascotland.org.uk](http://www.ryascotland.org.uk) T: 0131 317 7388 F: 0844 556 9549



Our ref: PCS/140084

Your ref:

If telephoning ask for:  
Alison Wilson

16 June 2015

Adrian Tait  
Marine Scotland  
Marine Laboratory  
PO Box101  
375 Victoria Road  
Aberdeen  
AB11 9DB

By email only to: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

Dear Mr Tait

**Marine (Scotland) Act 2010**

**Application for a Marine Licence under Part 4 of The Marine (Scotland) Act 2010,  
and under Part 4 of The Marine and Coastal Access Act 2009 to deposit and  
construct the Hywind Scotland Pilot Park**

**Hywind Scotland Pilot Park, Buchan Deeps, 25 km off the coast of Peterhead**

Thank you for your consultation e-mail which SEPA received on 5 May 2015.

Further to our scoping advice, SEPA does not now provide site specific advice on Marine Licence consultations. Instead, please refer to our standing advice on marine consultations within guidance document [SEPA standing advice for The Department of Energy and Climate Change and Marine Scotland on marine consultations](#), issued 17 April 2015.

If, after consulting this guidance, you consider that a particular development is novel or raises a particular environmental issue relevant to our interests which is not addressed by the standing advice, then we would welcome the opportunity to be re-consulted. Please note that the site specific issue on which you are seeking our advice must be clearly indicated in the body of your consultation request.

If you have any queries relating to this letter, please contact me by telephone on 01224 266656 or e-mail at [planning.aberdeen@sepa.org.uk](mailto:planning.aberdeen@sepa.org.uk).

Yours sincerely

Alison Wilson  
Senior Planning Officer  
Planning Service



Chairman  
David Sigsworth

Chief Executive  
Terry A'Hearn

**Aberdeen Office**

Inverdee House, Baxter Street  
Torry, Aberdeen AB11 9QA  
tel 01224 266600 fax 01224 896657  
[www.sepa.org.uk](http://www.sepa.org.uk)



Our Ref: MM/fl: 15-056

Your Ref:

8<sup>th</sup> June 2015

Scottish Fishermen's Federation  
24 Rubislaw Terrace  
Aberdeen, AB10 1XE  
Scotland UK

T: +44 (0) 1224 646944  
F: +44 (0) 1224 647058  
E: [sff@sff.co.uk](mailto:sff@sff.co.uk)

[www.sff.co.uk](http://www.sff.co.uk)

[Adrian.Tait@scotland.gsi.gov.uk](mailto:Adrian.Tait@scotland.gsi.gov.uk)

[MS.MarineLicencing@scotland.gsi.gov.uk](mailto:MS.MarineLicencing@scotland.gsi.gov.uk)

Dear Sirs

### **HYWIND Marine Licencing Applications**

The Scottish Fishermen's Federation is pleased to respond to this application on behalf of its nine member associations, the Anglo-Scottish Fishermen's Association, the Clyde Fishermen's Association, the Fishing Vessel Agents & Owners Association (Scotland) Limited, the Mallaig and North-West Fishermen's Association Ltd, the Orkney Fishermen's Association, Scallop Association, the Scottish Pelagic Fishermen's Association Ltd, the Scottish Whitefish Producers' Association Ltd and the Shetland Fishermen's Association.

The very first point I am forced to make is regarding the claim in 4.2.2 of the ES that the SFF is supportive of the project. I must dispel that myth straight away by stating that the SFF objects to the project until such time as we are convinced that our concerns over various aspects of the project are assuaged or mitigated.

The ES in 2.3.2 cherry picks the part of the Marine Policy Statement (UK) which Hywind obviously feels will support its application. The SFF would seek to highlight the section, 3.8 on Fisheries which we would contend seeks to give some form of protection, at least consideration, to the existing users of the sea – Fisheries, and would expect that MS(LOT) as the licencing authority, would take this into account.

The ES and other papers presented do not take account of the fact that the fishing industry does not have the use of 100% of the seafloor. Thus statements such as, "Although fishing does take place in the Buchan Deep, this area is not as important an area compared to surrounding waters in terms of fishing effort and value of landings" and "During this period and the subsequent 20 year operational phase of the Project, fisheries will be restricted from the 7.5 km<sup>2</sup> occupied by the turbines and their mooring system" are meaningless as any displacement suffered by the fleet is proportionally larger than the developers estimate.

The Non-Technical Summary describes "....the limited amount of fishing that currently takes place in the turbine deployment area and availability of suitable fishing areas in the surrounding waters, impacts on fisheries will not be significant" as further proof of the contention that fisheries will not be impacted negatively by the development, but the SFF would counter that by using the statistic from 5.5.1 of the ES,

#### **Members:**

Anglo Scottish Fishermen's Association

Clyde Fishermen's Association

Fishing Vessel Agents & Owners Association (Scotland) Ltd

Mallaig & North-West Fishermen's Association Ltd

Orkney Fisheries Association

Scallop Association

Scottish Pelagic Fishermen's Association Ltd

Scottish Whitefish Producers' Association Ltd

Shetland Fishermen's Association

VAT Reg. No: 605 096 748

which states that 77% of PD vessels have been in the area and 47% of FR vessels. This shows that it forms a useful fishing ground for local vessels and is an important area to ensure the fleet has options to fish at certain times of the year.

The diversity of the fleet users is quite obvious in the ES Chapter on commercial fisheries with every sector being noted at some point between the turbines and the shore. Pelagic species are in the whole offshore area; Haddock, Nephrops and squid in the Turbine area; Scallop fleet on the export cable route and static gear on the inshore segment of the cable.

The statement in 14.4.3 that recent average catches in the area have been low but that is not relevant to an industry that is permanently searching for catch, beset by management rules, weather and biology, no one can say with certainty that at any time in the future this area would or would not be a huge resource for the fishing industry.

The conclusions of Chapter 14 seem designed to down play the economic significance of the area, citing the export cable route, the turbine area and the cumulative and in combination impact as being not significant, which to the SFF is a subjective outcome, referring again to the fact that fishing does not take place in 100% of the sea, therefore “minor impact” is not relevant to the impact on the family firms which make up the fleet.

The SFF agrees with the developers that fishing is unlikely to resume within the development, but would state that the closure will amount to the total area of turbines and moorings, the 15 Km<sup>2</sup>, not 7.5 km<sup>2</sup> as there is not likely to be any safe way of using mobile gear within the matrix of anchors and mooring lines. This impact will need mitigation.

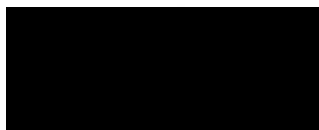
Regarding the export cable, the SFF would expect that the route and method of burial would be agreed with the fishing industry in order to achieve minimum disruption.

The SFF notes from the ES that there is an understanding that the export cable will be laid and unused for up to 18 months. The cable lying unattended for 18 months is also a concern to us, so again discussions on mitigation will be essential

The SFF also notes the likelihood that about 2 km is not going to achieve burial. The non-buried area protection must be negotiated to suit the segment of the fleet it will affect as each of the proposals presented in the ES bring their own dangers and there must be realistic mitigation on this.

The SFF has endeavoured to assist the developers, despite the area being decided prior to consulting, but will need to see some realistic mitigation for all segments of the fleet from Pelagic through to Static Gear before we could withdraw our basic objections to this development.

Yours faithfully

A large black rectangular box redacting the signature of the Chief Executive.

**Chief Executive**  
**Scottish Fishermen's Federation**

## Crookston C (Claire)

---

**From:** [REDACTED]@sportscotland.org.uk>  
**Sent:** 29 June 2015 13:06  
**To:** Tait A (Adrian) (MARLAB); Queiros J (Joao)  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Hi Adrian

Thanks for the consultation. We note that the RYAS has been consulted and it does not appear that this is a significant area for sailing interests. We are unaware of any other sports interests being affected by the proposal.

We note the land based element may have an effect on sports facilities and will contact the applicant directly in relation to this.

For the purposes of the consultation, please treat as a nil response from **sportscotland**.

Thanks, [REDACTED]

---

**From:** Adrian.Tait@scotland.gsi.gov.uk [mailto:Adrian.Tait@scotland.gsi.gov.uk]  
**Sent:** 05 May 2015 10:12  
**To:** Joao.Queiros@scotland.gsi.gov.uk  
**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir / Madam,

**MARINE (SCOTLAND) ACT 2010**  
**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**  
**THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

**APPLICATION FOR:**

- **A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, AND UNDER PART 4 OF THE MARINE AND COASTAL ACCESS ACT 2009 TO DEPOSIT AND CONSTRUCT THE HYWIND SCOTLAND PILOT PARK**

On the 27th March 2015, Hywind (Scotland) Limited (HSL) applied to the Scottish Ministers for a marine licence to deposit and construct a floating offshore wind demonstration project known as the Hywind Scotland Pilot Park (comprising five 6 MW wind turbines) at the Buchan Deep, approximately 25 km off the coast of Peterhead. This application is supported by an environmental statement ("ES").

A marine licence has been requested under the above Acts to undertake the deposit and construction of a floating offshore wind farm and cable laying works at a location below the level of Mean High Water Springs. Licence application details are summarised below:

Name and address of applicant:	Hywind Scotland Limited 1 Kingdom Street London W2 6BD
Location of deposits:	Off the coast of Peterhead, in an area bounded by the following coordinates:



Latitude (WGS84)	Longitude (WGS84)	Latitude (WGS84)	Longitude (WGS84)
1° 23.033' W	57° 30.302' N	1° 41.890' W	57° 31.486' N
1° 19.542' W	57° 29.715' N	1° 44.102' W	57° 31.485' N
1° 18.691' W	57° 29.023' N	1° 46.569' W	57° 30.679' N
1° 22.797' W	57° 27.603' N	1° 47.374' W	57° 30.959' N
1° 23.762' W	57° 28.416' N	1° 44.467' W	57° 31.773' N
1° 23.573' W	57° 29.989' N	1° 41.780' W	57° 31.764' N
1° 24.430' W	57° 29.317' N	1° 37.620' W	57° 30.444' N
1° 32.779' W	57° 29.632' N	1° 22.455' W	57° 29.478' N
1° 35.138' W	57° 29.800' N	1° 46.027' W	57° 31.023' N
1° 37.804' W	57° 30.184' N	1° 46.604' W	57° 30.825' N
		1° 46.673' W	57° 30.919' N

As required by the above legislation, details of the applications must be published for two consecutive weeks in the local press. Notices will appear in The Scotsman, The Fishing News, The Edinburgh Gazette and The Buchan Observer.

The above legislation allows for representation to be made to Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **16<sup>th</sup> June 2015**. If you wish to submit a response, please send to: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

If you have no comments to make, please submit a 'nil return' response. If you require an extension to the consultation deadline I would be grateful if you let us know before the deadline date.

A copy of the ES will be sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact Marine Scotland Licensing Operations Team as soon as possible.

We would also be grateful if you would acknowledge receipt of this email.

Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlÃ radh neo air a sgrÃ¹dadh airson dearbhadh gu bheil an siostam ag obair gu h-Ã²ifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

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\*\*\*\*\*



[REDACTED] <scottishwaveriders@googlemail.com>

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## Hywind offshore wind ES

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[REDACTED]

Hi [REDACTED]

Thanks for the links for close out I have reviewed the Environmental Statement for the project and can confirm on behalf of the SSF that the proposed cable corridor does not directly impact the surfing sites within the region.

(Page 90 of attached ES)

<http://www.gov.scot/Resource/0043/00435569.pdf>

For completeness I've cc'd in some of the regular local surfers belong to the local clubs also

thanks,,

[REDACTED]  
**President**  
**Scottish Surfing Federation**  
**Email:** [scottishwaveriders@googlemail.com](mailto:scottishwaveriders@googlemail.com)  
**Web:** [www.thessf.com](http://www.thessf.com)

---

[Quoted text hidden]

Adrian Tait

Licensing Operations Team  
Marine Scotland



16/06/2015

Dear Mr Tait,

The Scottish Wildlife Trust is pleased to have the opportunity to comment on the application by Hywind Scotland Limited (hereafter Hywind) for a Marine License under Part 4 of the Marine Scotland Act 2010 to deposit and construct the Hywind Scotland Pilot Park at the Buchan Deeps, off the coast of Peterhead.

We welcome Hywind's contribution to seeking improvements and advancements in Scotland's renewable energy industry and encourage the development and testing of new technologies that reduce environmental impacts. It is widely acknowledged that renewable energy production will play a key role in reducing Scotland's carbon emissions, which will ultimately help to reduce climate change impacts on biodiversity.

The Scottish Wildlife Trust is encouraged to see the novel design of 'floating wind', in particular the reduction in noise during the installation stage (by eliminating the need for drilling/piling), and the potential for wind energy exploitation in previously inaccessible, deeper waters. As with all new technologies, it is important to assess long term performance and environmental impact, and we are pleased to see performance testing of the turbines has been carried out in offshore conditions and that the proposed development is a small-scale, 5-turbine pilot study. The Scottish Wildlife Trust believes that a precautionary, phased approach to development – underpinned by excellent data, monitoring and adaptive management – is essential to ensure that the industry develops sustainably. This phased approach should involve an initial small-scale development that avoids all but low risk areas. Additionally, mitigation measures should be tested as part of this approach, and monitoring results should feed into an adaptive management strategy. We strongly believe that there should be a presumption in favour of the avoidance of sensitive sites and species to prevent risk of damage. Above all, it is essential that 'deploy and monitor' does not compromise obligations under the Habitats and Birds Directives.

Key points to be considered:

#### **Non-native species**

In section 9.7.2 Introduction of Marine Non-Native Species of the Environmental Statement, it states:

**Patron** HRH The Prince Charles, Duke of Rothesay **Chairman** Robin Harper **Chief Executive** Jonny Hughes

Scottish Wildlife Trust Harbourside House 110 Commercial St Edinburgh EH6 6NF  
T 0131 312 7765 F 0131 312 8705 E [enquiries@scottishwildlifetrust.org.uk](mailto:enquiries@scottishwildlifetrust.org.uk) W [scottishwildlifetrust.org.uk](http://scottishwildlifetrust.org.uk)

## Protecting Scotland's wildlife for the future

*'The location of the inshore turbine assembly area will be on the Norwegian west coast, and as that is within the North Sea containing more or less the same species, the risk of alien invasive species introductions to the east coast of Scotland is minimal.'*

We consider the phrasing '*more or less the same species*' to be an inadequate assessment of the different species compositions that exist in both coastal regions. Although we agree that the introduction of non-native species to the East coast of Scotland via the transportation of ballast water in the WTG structures is minimal, it should be noted that, despite the similarities between native species found in Norway and Scotland, the non-native species found in each country are different. Therefore, the transportation and release of ballast water has the potential act as a vector of secondary spread for non-native species from Norway to Scotland.

We suggest that, considering there are only 5 WTG structures being transported in a single event and that the amount of ballast water in each is relatively small, treatment should take place either prior to transportation (e.g. using freshwater) or during transportation (e.g. exchanged with open-sea water). The small-scale of the project presents an ideal opportunity to take a precautionary approach to non-native species management and eliminate the potential risk of introducing any undesired species to a new location.

### Ornithology

The Scottish Wildlife Trust believe that Marine Scotland must consider the conclusions of the pending judicial review of the 'Forth and Tay' wind proposals before reaching a conclusion to the Hywind Scotland Pilot Park.

Yours sincerely,

[Redacted Signature]

Marine Planning Officer

T. [Redacted]

M. [Redacted]

**Patron** HRH The Prince Charles, Duke of Rothesay **Chairman** Robin Harper **Chief Executive** Jonny Hughes

Scottish Wildlife Trust Harbourside House 110 Commercial St Edinburgh EH6 6NF

**T** 0131 312 7765 **F** 0131 312 8705 **E** [enquiries@scottishwildlifetrust.org.uk](mailto:enquiries@scottishwildlifetrust.org.uk) **W** [scottishwildlifetrust.org.uk](http://scottishwildlifetrust.org.uk)

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It is also a Scottish registered charity (charity no. SC005792)

## Crookston C (Claire)

---

**From:** Tait A (Adrian) (MARLAB)  
**Sent:** 02 June 2015 10:29  
**To:** Queiros J (Joao)  
**Subject:** FW: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Adrian Tait

[marinescotland](#)

Marine Renewables Licensing Manager  
Marine Scotland Licensing Operations Team  
Scottish Government  
Marine Laboratory | 375 Victoria Road  
Aberdeen, AB11 9DB  
Phone: 01224 295 668 | 07557 848 720

---

**From:** Kelly, Rosie [<mailto:Rosie.Kelly@thecrownestate.co.uk>]  
**Sent:** 02 June 2015 09:51  
**To:** Tait A (Adrian) (MARLAB)  
**Cc:** Campbell, Naomi; Westwood, Dr. Anne  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Adrian

Thank you for your email. This is to confirm that we have received a copy of the Hywind ES but we are not intending to provide a formal consultation response for this application.

Kind regards  
Rosie

---

**Rosie Kelly**  
Marine Consents Advisor



16 New Burlington Place, London, W1S 2HX  
Tel: +44 (0) 20 7851 5255 | Mob: +44 (0) 7584 230 759

[www.thecrownestate.co.uk](http://www.thecrownestate.co.uk)



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**From:** [Adrian.Tait@scotland.gsi.gov.uk](mailto:Adrian.Tait@scotland.gsi.gov.uk) [<mailto:Adrian.Tait@scotland.gsi.gov.uk>]  
**Sent:** Tuesday, May 05, 2015 10:13 AM  
**To:** [Joao.Queiros@scotland.gsi.gov.uk](mailto:Joao.Queiros@scotland.gsi.gov.uk)  
**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir / Madam,

**MARINE (SCOTLAND) ACT 2010**  
**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**  
**THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)**

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A marine licence has been requested under the above Acts to undertake the deposit and construction of a floating offshore wind farm and cable laying works at a location below the level of Mean High Water Springs. Licence application details are summarised below:

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Location of deposits:	Off the coast of Peterhead, in an area bounded by the following coordinates:

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		1° 46.673' W	57° 30.919' N

As required by the above legislation, details of the applications must be published for two consecutive weeks in the local press. Notices will appear in The Scotsman, The Fishing News, The Edinburgh Gazette and The Buchan Observer.

The above legislation allows for representation to be made to Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **16<sup>th</sup> June 2015**. If you wish to submit a response, please send to: [ms.marinelicensing@scotland.gsi.gov.uk](mailto:ms.marinelicensing@scotland.gsi.gov.uk)

If you have no comments to make, please submit a 'nil return' response. If you require an extension to the consultation deadline I would be grateful if you let us know before the deadline date.

A copy of the ES will be sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact Marine Scotland Licensing Operations Team as soon as possible.

We would also be grateful if you would acknowledge receipt of this email.

Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

\*\*\*\*\*

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

\*\*\*\*\*



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## Crookston C (Claire)

---

**From:** Ferguson V (Val)  
**Sent:** 13 May 2015 15:38  
**To:** MS Marine Licensing  
**Cc:** Tait A (Adrian) (MARLAB)  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

I have no comments on this application



*Val Ferguson*

*Policy Executive*

*Ports and Harbours Branch*

*Aviation, Freight, Maritime & Canals Directorate*

*Area 2F North*

*Victoria Quay*

*Edinburgh*

*EH6 6QQ*

*0131 244 7878*

[val.ferguson@transportscotland.gsi.gov.uk](mailto:val.ferguson@transportscotland.gsi.gov.uk)

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**From:** Tait A (Adrian) (MARLAB)  
**Sent:** 05 May 2015 10:13  
**To:** Queiros J (Joao)  
**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir / Madam,

**MARINE (SCOTLAND) ACT 2010**

**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)**

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

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1 Kingdom Street  
London  
W2 6BD

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If you have no comments to make, please submit a 'nil return' response. If you require an extension to the consultation deadline I would be grateful if you let us know before the deadline date.

A copy of the ES will be sent to you by the applicant. If you have not received a copy, or require any further information not enclosed with this letter, please contact Marine Scotland Licensing Operations Team as soon as possible.

We would also be grateful if you would acknowledge receipt of this email.

Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

## Crookston C (Claire)

---

**From:** Tait A (Adrian) (MARLAB)  
**Sent:** 21 May 2015 17:18  
**To:** [REDACTED]  
**Cc:** Queiros J (Joao)  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

[REDACTED],

Many thanks for your response. We will note it in our files.

Have a good evening,

Adrian

**Adrian Tait**

[marinescotland](#)

Marine Renewables Licensing Manager  
Marine Scotland Licensing Operations Team  
Scottish Government  
Marine Laboratory | 375 Victoria Road  
Aberdeen, AB11 9DB  
Phone: 01224 295 668 | 07557 848 720

---

**From:** [REDACTED]  
**Sent:** 21 May 2015 09:57  
**To:** Tait A (Adrian) (MARLAB)  
**Subject:** RE: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Adrian,

We have no comments to make.

Best regards, [REDACTED]

---

**From:** [Adrian.Tait@scotland.gsi.gov.uk](mailto:Adrian.Tait@scotland.gsi.gov.uk) [<mailto:Adrian.Tait@scotland.gsi.gov.uk>]  
**Sent:** 07 May 2015 14:41  
**To:** [REDACTED]  
**Subject:** FW: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear [REDACTED]

Apologies for getting your e-mail address wrong – I have checked with [REDACTED] and now send this request for comment to you.

If you have any questions, please don't hesitate to contact me.

Kind regards,

Adrian

**Adrian Tait**

[marinescotland](#)

Marine Renewables Licensing Manager

---

**From:** Tait A (Adrian) (MARLAB)  
**Sent:** 05 May 2015 10:27  
**To:** [REDACTED]  
**Subject:** FW: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Good morning [REDACTED]

I've tried sending this to [REDACTED] address but it keeps getting returned. Can you tell me if this address is still valid and, if not, should I redirect this anywhere else?

[REDACTED]

Thanks

Adrian

**Adrian Tait**

[marinescotland](#)

Marine Renewables Licensing Manager  
Marine Scotland Licensing Operations Team  
Scottish Government  
Marine Laboratory | 375 Victoria Road  
Aberdeen, AB11 9DB  
Phone: 01224 295 668 | 07557 848 720

---

**From:** Tait A (Adrian) (MARLAB)  
**Sent:** 05 May 2015 10:19  
**To:** [REDACTED]  
**Subject:** FW: Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear [REDACTED]

I had a return on this request for consultation on the Hywind offshore floating wind project. As sent earlier this morning, I'm trying again.

Thanks,

Adrian

**Adrian Tait**

[marinescotland](#)

Marine Renewables Licensing Manager  
Marine Scotland Licensing Operations Team  
Scottish Government  
Marine Laboratory | 375 Victoria Road  
Aberdeen, AB11 9DB  
Phone: 01224 295 668 | 07557 848 720

---

**From:** Tait A (Adrian) (MARLAB)

**Sent:** 05 May 2015 10:13

**To:** Queiros J (Joao)

**Subject:** Consultation on Marine Licence Application - Hywind Scotland Pilot Park

Dear Sir / Madam,

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Yours faithfully,

Adrian Tait  
Marine Scotland Licensing Operations Team

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Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson adhbhar laghail eile. Dh'fhaodadh nach eil beachdan anns a' phost-d seo co-ionann ri beachdan Riaghaltas na h-Alba.

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