Aberdeenshire
COUNCIL

Strategic Development Delivery Team
Infrastructure Services
Aberdeenshire Council
Woodhill House
Westburn Road
Aberdeen
Tel: 01224 664256
Stuart.Murison@aberdeenshire.gov.uk
25 January 2017

Marine Scotland - Marine Planning & Policy
Scottish Government
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB
By Email: MS.MarineRenewables@gov.scot

Dear Sir/Madam

ENQ/2015/0964: Consultation response from Aberdeenshire Council on Marine Licence application under the Marine (Scotland) Act 2010, Marine and Coastal Access Act 2009 (As Amended) and The Marine Works (Environmental Impact Assessment) Regulations 2007 (As Amended) for the purification of conditions attached to Marine Licence Number 05515/16/0 in relation to the Hywind Scotland Pilot Park Project from Hywind (Scotland) Limited.

Thank you for your consultation dated 11 January 2017 concerning the discharge of conditions attached to Marine Licence Number 05515/16/0.

Aberdeenshire Council was specifically requested to review the following conditions:

- Lighting and Marking Plan – LMP, ref. condition 3.2.2.11;
- Construction Method Statement – CMS, ref. condition 3.2.2.5;
- Cable Plan – CaP, ref. condition 3.2.2.10;
- Vessel Management Plan – VMP, ref. condition 3.2.2.7;
- Construction Programme - CoP (Schedule), ref. condition 3.2.2.4;
- Environmental Management Plan – EMP, ref. condition 3.2.1.2.

Having reviewed the submission and consulted internally with relevant services within Aberdeenshire Council, I can confirm that we are satisfied that the conditions listed above can be discharged.

With regard to the Marine Archaeological Reporting Protocol, I can confirm that there are no further comments to make at this stage other than to support the recommendation for the

discharge of any Condition relating to archaeology should Historic Environment Scotland (relevant statutory body covering this element) be minded to do so.

Should there be any issues with regard to the above, please feel free to contact me using the details provided.

Kind Regards,

[redacted]

Stuart Murison
Senior Planner

Humphries S (Sophie)

From: Windfarms <Windfarms.Windfarms@caa.co.uk>
Sent: 31 January 2017 11:48
To: MS Marine Renewables
Cc: dvof@mod.uk; AROps
Subject: 20170131CAAResponseHywindConstructionPlan

Sir / Madam

Thank you for your email dated 11 January 2017.

The CAA has reviewed the proposed construction plan and can confirm that the relevant aviation stakeholders continue to be consulted. The CAA will take this opportunity to remind you of the following information:

Structures with a maximum height of 300 ft. (91.4m) above ground level or higher:

There is an international civil aviation requirement for all structures of 300 feet (91.4 metres) or more to be charted on aeronautical charts. Accordingly such structures should be reported to the Defence Geographic Centre (DGC) which maintains the UK's database of tall structures (the Digital Vertical Obstruction File) at least 10 weeks prior to the start of construction. The point of contact is Nigel Whittle (0208 818 2702 or dvof@mod.uk). The DGC will require the accurate location of the turbines/meteorological masts, accurate maximum heights, the lighting status of the turbines and / or meteorological masts and the estimated start / end dates for construction together with the estimate of when the turbines are scheduled to be removed. In addition, the developer should also provide the maximum height of any construction equipment required to build the turbines.

I have cc'd the DGC to this reply.

In order to ensure that aviation stakeholders are aware of the turbines and / or meteorological masts while aviation charts are in the process of being updated, developments should be notified through the means of a **Not**ice to **A**ir**m**en (NOTAM). To arrange an associated NOTAM, a developer should contact CAA Airspace Regulation (AROps@caa.co.uk / 0207 453 6599); providing the same information as required by the DGC at least 14 days prior to the start of construction.

I have also cc'd the CAA Airspace Regulation to this reply.

Structures with a maximum height below 300 ft. (91.4m) above ground level:

On behalf of other non-regulatory aviation stakeholders, and in the interest of Aviation Safety, the CAA also requests that any feature/structure 70 ft (21.3m) in height, or greater, above ground level is also reported to the Defence Geographic Centre (DGC) to allow for the appropriate notification to the relevant aviation communities. It should be noted that NOTAMS would not routinely be required for structures under 300 ft (91.4m) unless specifically requested by an aviation stakeholder.

Yours Sincerely,

Ade

Adrian Stead
Surveillance Policy
Airspace, ATM & Aerodromes
Civil Aviation Authority

Tel: 020 7453 6534

Follow us on Twitter: @UK_CAA

From: MS.MarineRenewables@gov.scot [mailto:MS.MarineRenewables@gov.scot]
Sent: 11 January 2017 13:34
To: 'JNCCAdvicetoDTI@jncc.gov.uk'; 'marineenergy@snh.gov.uk'; MS_Renewables@gov.scot; Paul.Stainer@gov.scot; 'planning.aberdeen@sepa.org.uk'; 'planning@aberdeenshire.gov.uk'; 'stuart.murison@aberdeenshire.gov.uk'; 'wendy.forbes@aberdeenshire.gov.uk'; 'navigationsafety@mcga.gov.uk'; Nick.Salter@mcga.gov.uk; 'navigation@nlb.org.uk'; ArchieJ@nlb.org.uk; 'renewables@sff.co.uk'; 'm.morrison@sff.co.uk'; amundin@ukchamberofshipping.com; Windfarms; DIO-Safeguarding-Offshore@mod.uk; HMConsultations@hes.scot
Subject: Hywind - Construction Plan Consultation - Request for Comments by 08th February 2017

MARINE (SCOTLAND) ACT 2010
MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)
The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)

Dear Sir/Madam,

Hywind (Scotland) Limited ("Hywind"), having received consent under the above legislation and in order to discharge conditions of their Marine Licence (Licence Number 05515/16/0), in respect of the Hywind Scotland Pilot Park Project, has submitted to the Licensing Authority the documents attached.

For offshore construction activities to be performed in 2017, Hywind has agreed with Marine Scotland to develop a construction plan covering the relevant licence conditions in one document, rather than preparing separate documents or plans for each condition. Please find enclosed the proposed "Hywind Scotland Pilot Park Project - Plan for Construction Activities 2017" (hereinafter referred to as "the Construction Plan") and a commitment letter from Hywind addressed to MS-LOT. The topics covered are listed below, where appropriate with reference to the relevant conditions to be discharged:

- Development Specification and Layout Plan - DSLP (Technical description), ref. condition 3.2.2.6;
- Lighting and Marking Plan – LMP, ref. condition 3.2.2.11;
- Construction Method Statement – CMS, ref. condition 3.2.2.5;
- Cable Plan – CaP, ref. condition 3.2.2.10;
- Vessel Management Plan – VMP, ref. condition 3.2.2.7;
- Construction Programme - CoP (Schedule), ref. condition 3.2.2.4;
- Baseline description, ref. condition 3.2.2.10;
- Environmental Management Plan – EMP, ref. condition 3.2.1.2, including chemical usage (ref. condition 3.1.7) and environmental protection (condition 3.1.8);
- Fisheries Management and Mitigation Strategy – FMMS, ref. condition 3.2.1.3;
- Emergency Response Co-operation Plans – ERCoP (including emergency response and HSE incidents reporting (brief description, conditions 3.2.1.7 and 3.2.1.10 to be discharged through separate documents));
- Navigational Safety Plan – NSP, ref. condition 3.2.2.8;
- Marine Archaeology Reporting Protocol – MARP, ref. condition 3.2.2.19;

Humphries S (Sophie)

From: Adrian Mundin <AMundin@ukchamberofshipping.com>
Sent: 19 January 2017 11:53
To: MS Marine Renewables
Subject: RE: Hywind - Construction Plan Consultation - Request for Comments by 08th February 2017

Dear Catarina, the Chamber of Shipping has no particular comment. Thanks

best regards
Adrian

Adrian J Mundin MVO
Policy Manager

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

DD +44 (0) 20 7417 2828
[redacted]
amundin@ukchamberofshipping.com
www.ukchamberofshipping.com

From: MS.MarineRenewables@gov.scot [mailto:MS.MarineRenewables@gov.scot]
Sent: 11 January 2017 13:34
To: 'JNCCAdvicetoDTI@jncc.gov.uk'; 'marineenergy@snh.gov.uk'; MS_Renewables@gov.scot; Paul.Stainer@gov.scot; 'planning.aberdeen@sepa.org.uk'; 'planning@aberdeenshire.gov.uk'; 'stuart.murison@aberdeenshire.gov.uk'; 'wendy.forbes@aberdeenshire.gov.uk'; 'navigationsafety@mcga.gov.uk'; Nick.Salter@mcga.gov.uk; 'navigation@nlb.org.uk'; ArchieJ@nlb.org.uk; 'renewables@sff.co.uk'; 'm.morrison@sff.co.uk'; Adrian Mundin; windfarms@caa.co.uk; DIO-Safeguarding-Offshore@mod.uk; HMConsultations@hes.scot
Subject: Hywind - Construction Plan Consultation - Request for Comments by 08th February 2017

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For offshore construction activities to be performed in 2017, Hywind has agreed with Marine Scotland to develop a construction plan covering the relevant licence conditions in one document, rather than preparing separate documents or plans for each condition. Please find enclosed the proposed "Hywind Scotland Pilot Park Project - Plan for Construction Activities 2017" (hereinafter referred to as "the Construction Plan") and a commitment letter from Hywind addressed to MS-LOT. The topics covered are listed below, where appropriate with reference to the relevant conditions to be discharged:

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0313-668-8716
HMConsultations@hes.scot

By email to: MS.MarineRenewables@gov.scot

Ms Catarina Aires
Marine Scotland
Catarina Aires
Marine Laboratory
375 Victoria Road
ABERDEEN
AB11 9DB

Our ref: AMN/16/GB
Our Case ID: 201605305
10 February 2017

Dear Ms Aires

MARINE (SCOTLAND) ACT 2010
MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)
The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)

Hywind – Construction Plan

Thank you for your consultation which we received on 11 January. We have considered it in our role as a consultee under the terms of the above regulations and for our historic environment remit. Our remit is for world heritage sites, scheduled monuments and their setting, category A-listed buildings and their setting, and gardens and designed landscapes (GDLs) and battlefields in their respective Inventories.

You should also seek advice from Aberdeenshire Council archaeology and conservation advisors for matters including unscheduled archaeology and category B and C-listed buildings.

Our Advice

We have considered the submission of details relating to the Marine Archaeology Reporting Protocol (MARP), as required by Condition 3.2.2.19, on page 26 of the Hywind Scotland Pilot Park Project Plan for Construction Activities 2017. We consider the implementation of the reporting protocol in line with the Crown Estates Protocol for Archaeological Discoveries: Offshore Renewables Projects to be appropriate.

We note from the consultation email and introduction of the Construction Plan document that Hywind has agreed with Marine Scotland to develop a construction plan covering the relevant licence conditions in one document. We note that condition 3.2.1.2, Environmental Management Plan (EMP) is included within this document in Section 9, page 23. The condition requirements included the submission of a completed Written Scheme of Investigation (WSI), to be approved by Historic Environment Scotland. However the WSI was not included or referenced within Section 9. It is unclear from the submission if the WSI is to be submitted at a later date. Therefore we seek clarification as why the WSI has not been included as part of the submission for the fulfilment of condition 3.2.1.2.

Please contact us if you have any questions about this response. The officer managing this case is Anna Gaffney, who can be contacted by phone on 0131 668 8653 or by email on Anna.Gaffney@hes.scot.

Yours sincerely

Historic Environment Scotland

Humphries S (Sophie)

From: Sarah.Canning@jncc.gov.uk
Sent: 08 February 2017 11:55
To: MS Marine Renewables
Cc: Catriona Gall
Subject: RE: Hywind - Construction Plan Consultation - Request for Comments by 08th February 2017

Dear Catarina,

We consider that this construction plan for the Hywind floating wind demo site addresses all the conditions listed below relevant to JNCC and SNH's remit.

We are satisfied with the arrangements for the environmental clerk of works (ECoW) and for environmental reporting, noting that Statoil's environmental management system fully complies with British standards (ISO 14001).

The plan is succinct and the construction work is clearly described. Statoil have addressed all the comments we raised prior to submission of this plan and we have nothing further to add.

Yours sincerely,

Dr Sarah Canning

Offshore Industries Advisor
PhD, BSc (Hons)
Joint Nature Conservation Committee
Inverdee House, Baxter Street, Aberdeen, AB11 9QA
Tel: 01224 266 550
Direct Tel: 01224 266589
Email: sarah.canning@jncc.gov.uk

http://jncc.defra.gov.uk

25 years delivering innovative solutions to realise the value of nature.

From: MS.MarineRenewables@gov.scot [mailto:MS.MarineRenewables@gov.scot]
Sent: 11 January 2017 13:34
To: 'JNCCAdvicetoDTI@jncc.gov.uk'; 'marineenergy@snh.gov.uk'; MS_Renewables@gov.scot; Paul.Stainer@gov.scot; 'planning.aberdeen@sepa.org.uk'; 'planning@aberdeenshire.gov.uk'; 'stuart.murison@aberdeenshire.gov.uk'; 'wendy.forbes@aberdeenshire.gov.uk'; 'navigationsafety@mcga.gov.uk'; Nick.Salter@mcga.gov.uk; 'navigation@nlb.org.uk'; ArchieJ@nlb.org.uk; 'renewables@sff.co.uk'; 'm.morrison@sff.co.uk'; amundin@ukchamberofshipping.com; windfarms@caa.co.uk; DIO-Safeguarding-Offshore@mod.uk; HMConsultations@hes.scot
Subject: Hywind - Construction Plan Consultation - Request for Comments by 08th February 2017

MARINE (SCOTLAND) ACT 2010
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The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)

Hywind Scotland Pilot Park Project
Plan for Operation and Maintenance

C178-HYS-Z-GA-00004

Title:
Hywind Scotland Pilot Park Project **Plan for Operation and Maintenance**

Document no. :	Contract no.:	Project:
C178-HYS-Z-GA-00004		**Hywind Scotland Pilot Park Project**

Classification:	Distribution:
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Techn. responsible (Organisation unit / Name): **Operations Manager, Halvor Hoen Hersleth**	Date/Signature: X
Responsible (Organisation unit/ Name): **Operations Manager, Halvor Hoen Hersleth**	Date/Signature: X
Recommended (Organisation unit/ Name): **SSU & Consenting Manager, Håkon Graven**	Date/Signature: X
Approved by (Organisation unit/ Name): **Project Director, Leif Delp**	Date/Signature: X

Table of contents

1 Introduction

1.1 Background

Statoil ASA received a Marine Licence on the 30th October 2015 to develop the Hywind Scotland Pilot Park Project ("Hywind Scotland"). Five floating wind turbines (FWTs) will be installed, each with a generating capacity of 6 MW giving a total generating capacity of 30 MW, approximately 25 km off the coast of Peterhead. Each turbine will be anchored by a three-point mooring spread, and they will be connected by inter-array cables (figure 1.1). An export cable will transport the generated electricity to the shore. The application, Marine Licence decision documents and other documentation are placed on Marine Scotland's web page[1].

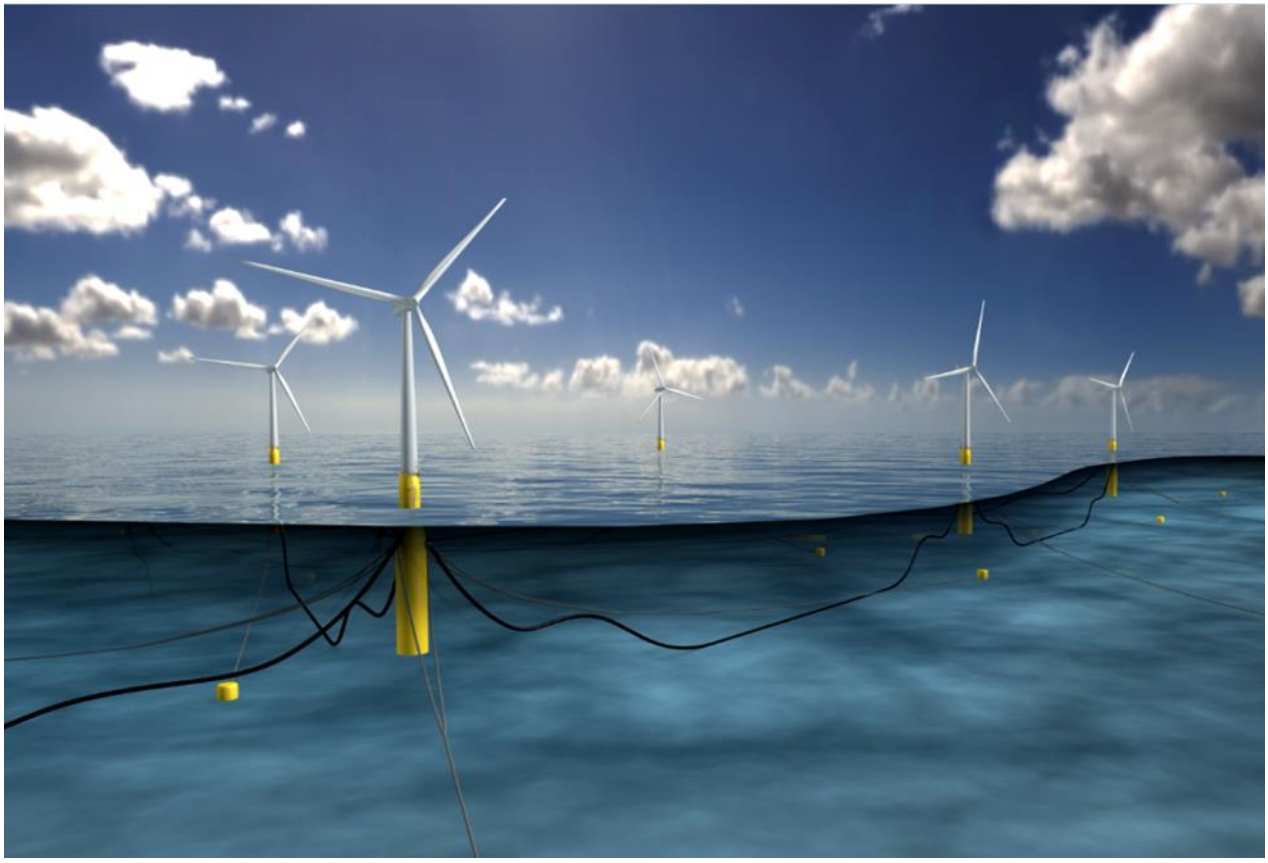

Figure 1.1. Graphical illustration of the Hywind Scotland Pilot Park Project

1.2 Document objective

This document outlines the procedures and working practices for the operation and maintenance of the FWTs and cable network for Hywind Scotland Pilot Park. The purpose of the document is to provide the information which will enable the Licencing Authority to discharge consent conditions given in the Marine Licence for the Hywind Scotland Pilot Park Project (Licence number 05515/15/0) related to the operation phase of the project. Statoil has agreed with Marine

[1] http://www.gov.scot/Topics/marine/Licensing/marine/scoping/Hywind

Scotland to develop an operation and maintenance plan, covering the relevant licence conditions in one document, rather than preparing separate documents or plans for each condition. The issues covered are listed below, with reference to the relevant conditions to be discharged:

- Operation and Maintenance Programme – OMP, ref. condition 3.2.2.9, including cable maintenance and inspection (ref. condition 3.2.2.10 f) and g); Cable Plan);
- Vessel Management Plan – VMP, ref. condition 3.2.2.7;
- Navigational Safety Plan – NSP, ref. condition 3.2.2.8;
- Environmental Management Plan – EMP, ref. condition 3.2.1.2, including chemical usage (ref. condition 3.1.7) and environmental protection (condition 3.1.8);
- Emergency Response Co-operation Plans – ERCoP (including emergency response and HSE incidents reporting (brief description, conditions 3.2.1.7 and 3.2.1.10 to be discharged through separate documents)

Statoil has agreed with the Maritime and Coastguard Agency (MCA to prepare two Emergency Response and Co-operation Plans (ERCoPs) following a standard template; one for the construction phase and one for the operational phase. Emergency response and reporting of health and safety incidents (ref conditions 3.2.1.7 and 3.2.1.10) is therefore only briefly covered in this operation and maintenance plan.

1.3 Target group

The target group for this document is the Licensing Authority and statutory consultees such as JNCC, SNH, SEPA, MCA, NLB, AC and any such other advisors or organisations as may be required at the discretion of the Licensing Authority.

2 Operation and Maintenance Programme - OMP

2.1 Operation and maintenance principles

The Hywind Scotland operation and maintenance philosophy follows the same operation and maintenance principles as used for any other wind project in Statoil. This chapter aims to give a holistic overview of the operation and maintenance programme for Hywind Scotland.

The operation and maintenance of a wind turbine placed on a floating foundation using the Hywind concept is comparable to a bottom fixed turbine for all normal maintenance tasks. Operational experience from the Hywind Demo turbine has verified this assumption. Main component failures and work related to the substructure and mooring system will be different from a bottom fixed wind turbine. Inspection and maintenance of the substructures and mooring systems will be conducted on a campaign basis, using relevant competency within Statoil. Main component exchange requires further planning, and will, if necessary, be performed as a small stand-alone project.

2.2 Roles and responsibilities

The Hywind Scotland project organisation is fully responsible for the necessary preparation prior to stable operations. This responsibility ends upon handover from the project organisation to Statoil's wind operations unit (NES WIC WOPS), see figure 2.1.1. The planned hand-over date is 31 December 2017. Hywind Scotland will have a dedicated operation and maintenance manager reporting to the Head of Statoil Wind Operations UK after the handover.

Figure 2.1.1 Hywind Scotland Prepare for Operations Organisation

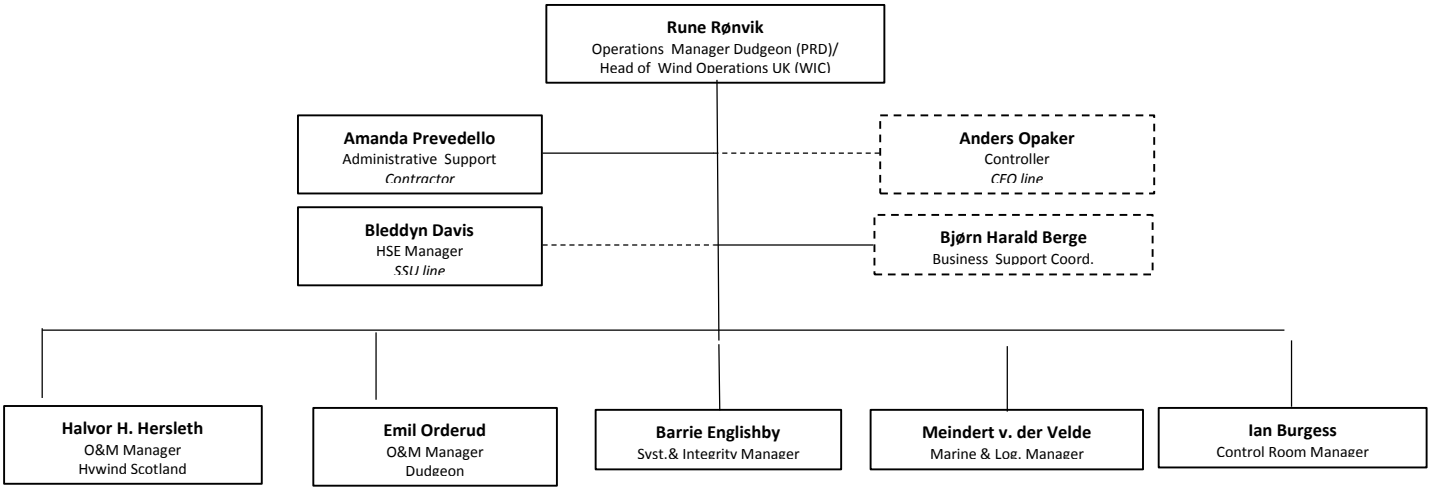

Figure 2.1.1 Statoil UK wind operations

Requirements for follow-up, reporting and interfaces towards stakeholders and governmental bodies will be the same for HYS as for any other wind farm.

2.3 Operation and maintenance strategy

The planning assumptions for a SWT6.0-154 turbine are five days scheduled maintenance and on average ten days unscheduled maintenance per year; which sums up to about 75 days of maintenance for Hywind Scotland per year. In addition, there will be some visits for maintenance and certification of other equipment on the structures. The ambition is to schedule these events on the same visits as the scheduled turbine maintenance.

The resource strategy selected for Hywind Scotland is to have dedicated technicians and a crew transfer vessel stationed in Peterhead. This organisation will be ready to work on the turbines every day when the weather allows sailing and safe access to the turbines. Siemens will be able to handle normal operations without Statoil's physical presence. Siemens can also handle the daily interface towards the vessel provider. Statoil will therefore not be permanently present at the operational base in Peterhead during normal operation. This operation and maintenance strategy is based on Statoil's current assumptions and will be revisited after a year in operation, based on operational experience.

2.3.1 Wind turbine maintenance

Hywind Scotland has a five-year service agreement with Siemens Service UK. The scope of this contract covers the maintenance of the turbines, tower internals, high voltage switchgear, SCADA and instrumentation and the statutory certification of lifting equipment, anchor/rescue points, fall arrest and pressurised systems. The turbine supply agreement comes with a five-year defect notification period, covering spare parts. Siemens technicians will be ready to work every day when the weather allows for safe access to the turbines. The ambition is that Siemens Service will handle the maintenance for all equipment located on the turbine. Siemens will during this initial service agreement period also do the

monitoring and alarm handling for the wind turbines from their centralised control room in Newcastle. After the five-year period, Statoil will evaluate the way forward, and chose either to continue with Siemens Service or a similar service provider, or take the maintenance of the wind turbines in house.

2.3.2 Electrical infrastructure maintenance

The maintenance for the electrical infrastructure in Peterhead will be tendered to local service providers. The contract will be monitored by the Statoil back-office organisation.

2.3.3 Maintenance and monitoring of foundation, mooring system and subsea cables

Inspection and maintenance of the foundations, including scour, mooring systems and subsea cables will be campaign based and done according to Statoil's internal procedures. The current assumption is that the inspections will be done every second year in the beginning, with a slightly increasing interval as no major findings are assumed. A review of the DFI (design, fabrication and installation) documentation will be done after the marine installation to formalize the inspection frequency.

The relevant competence areas in Statoil will be involved in the planning and execution of foundation, mooring system and subsea cable inspection and maintenance. These competence areas have decades of relevant experience from subsea inspections of foundations, mooring systems and subsea cables for offshore oil and gas installations. Subsea scope will most likely be executed using ROVs.

2.3.4 High voltage switching

Statoil is responsible for providing this service. This will cover both HV switching on the turbines and on the onshore substation. All high voltage switching and works will be conducted in accordance with Statoil UK wind safety rules, with operational switching conducted remotely from Statoil's Wind Control Centre in Great Yarmouth. Senior Authorized Persons will put local safety measures into place prior to high voltage works. Potential providing parties for SAP resources are; personnel in Statoil's UK wind organisation, the grid operator (SSE) or another third party. A decision on this will be taken within 2017.

2.3.5 Heavy component exchange

The platform crane and the crew transfer vessel is designed to handle all standard components and spare parts, with a maximum limit of 2 tonnes. This will cover everything, excluding the main components, i.e. transformer, generator/main bearing, yaw bearing, blade bearing, blades and the hub.

Transformer exchange will be done using a standard DP offshore service vessel. The transformer will be lowered externally from the nacelle to the platform before being lifted off using the service vessel crane.

For the other main components, the lifting operation will be at nacelle height (about 100 m). The water depth is too great for jack-up vessels, meaning that the lift will have to be between two floaters. This operation is very sensitive to motions and is not feasible in offshore environment outside of Peterhead. The turbines will therefore have to be towed back to

sheltered waters for such components to be exchanged. The most likely location for major component exchange is the Norwegian fjords.

2.4 Location of offices

2.4.1 Local base Peterhead –ASCO with Statoil Aberdeen

The local base will cover office facilities for maintenance planning and reporting, spare part storage and quay facilities for loading and unloading the crew transfer vessel.

Statoil Aberdeen has entered into a contract with ASCO in Peterhead for their base services for Mariner. Hywind Scotland Pilot Park has entered into an agreement with Statoil Aberdeen, allowing the use of the ASCO base services. This agreement includes local offices, changing rooms, spare part storage, quay for vessel, waste handling, return of goods and lifting and transportation services on demand.

2.4.2 Back office organisation

Back-office functions such as the follow-up of O&M activities, monitoring of asset integrity, production forecasting and following up service contracts will be shared with other Statoil wind farms within the Statoil UK wind organisation. This allows the use of existing competence and capacity.

Control room – Great Yarmouth
Hywind Scotland will buy services from the control room that currently is established in Dudgeon's offices in Great Yarmouth. This control room will handle:

- Work permit activation/deactivation
- 24/7 function – grid connection requirements
- EDT
- HV switching
- Personnel and vessel tracking – marine surveillance
- Alarm and performance follow-up towards Siemens
- Monitoring and alarm handling of the WTGs (after the contract with Siemens expires)

Emergency response
Statoil UK has the responsibility for Statoil's UK wind operations and will also cover Hywind Scotland. This function will be covered from Dudgeon's offices in Great Yarmouth.

2.5 Operation and maintenance vessel

A single crew transfer vessel will be available 365 days a year in Peterhead. The vessel will be a catamaran type vessel of 20+ meters able to transport technicians, spares and equipment to the turbines. The base case is that the vessel will be based in Peterhead. For the initial period, World Marine has gotten the CTV contract, and will deliver World Passat, a 25m WindServer swath vessel, for the first operational period. Statoil is responsible for the vessel contract. The delivery date for the vessel is flexible, between June and September 2017.

3 Environmental Management Plan - EMP

As a company, Statoil has a clear goal to ensure sustainable development and is committed to minimising environmental impacts. The Statoil environmental management system is fully compatible with recognised environmental management standards, including ISO 14001. Furthermore, our contractors are required to meet the ISO 14001 standard. A commitment register including all commitments made during the Environmental Impact Assessment phase was included in the Environmental Statement, supplemented by requirements given in the marine licence.

Statoil will ensure that all vessels and their crew are made aware, of and are required to adhere to the Scottish Marine Wildlife Watching Code. Statoil will also ensure that all vessels involved in the installation works adhere to relevant IMO guidance on ballast water and transfer of non-native marine species (ref. MGN 81, Guidelines for the Control and Management of Ship's Ballast Water to Minimise the Transfer of Harmful Aquatic Organisms and Pathogens).

Statoil do have internal waste handling procedures which all projects and contractors have to adhere to. These requirements build on a strategy where priority is on avoiding waste generation. Where waste generation cannot be avoided, technical and operational measures, including separation, collection and disposal solutions for different classes of waste, shall be implemented to optimise the reuse, material recycling or energy recovery of the waste. Waste shall be stored and transported in such a way that accidental releases are prevented.

In the Hywind Scotland Pilot Park Project no particular waste generation issues are foreseen, and vessels involved are expected to primarily bring any household waste or other waste to their home port for disposal. Should there be a need to bring any waste ashore in Scotland, this will be done in consultation with SEPA (Robert MacDonald, SEPA Elgin Office, Shaw House, Mid Street, Fraserburgh, AB43, tel.: 01346 510502), and only licenced carriers will be used to handle any waste.

Statoil Wind Operations UK will be responsible for following up environmental management during operation. For project specific environmental monitoring it is referred to the Project Environmental Monitoring Programme (PEMP).

4 Emergency response and HSE incidents

Statoil do have a well-established companywide system for emergency response upon which a specific emergency response and reporting procedures will be established also for Hywind Scotland, as well as a stringent safety management system[2]. Statoil uses SYNERGY for recording and reporting any incidents, and our contractors are required to use this system as well. If any serious health and safety incidents occurs on the site, Statoil will report this to the Health and Safety Executive as well as notify Marine Scotland within 24 hours of the incident occurring. Further details on the emergency response and reporting of HSE incidents during operation, will be given in the separate ERCoP for the operation phase, and is not included in this document.

5 Navigational Safety Plan - NSP

Mariners will be made aware of the wind farm at Buchan Deep through navigational lights and markings (Navigational lighting and marking is described in the Navigational Safety Plan, ref. Plan for Construction Activities 2017, chapter 3). Furthermore, Statoil will ensure that local mariners, fishermen's organisations, UK Hydrographic Office ("UKHO") and the HM Coastguard (National Maritime Operation Centre) are made fully aware of site specific details above and under water

[2] http://www.statoil.com/en/EnvironmentSociety/security/Pages/Safety.aspx

through local Notice to Mariners and other means as appropriate. The site will also be charted on the Kingfisher Information Service - Offshore Renewable & Cable Awareness project (KIS-ORCA).

The Hywind turbines differ from traditional bottom fixed wind turbines with its floating concept and floating power cables running from the turbines down to the seabed. Statoil finds it important to highlight the essential differences for other users of the Buchan Deep area by applying for individual mandatory safety zones in addition to providing relevant information about the concept included into the charts covering this area. As a consequence, and with Statoil's best intention to raise the awareness of marines planning to operate inside the site, Statoil has applied for a 50-meter safety zone around each turbine during operation. BEIS has not yet concluded the application, but in a meeting the 7th of December informed Statoil that they are uncertain about the value of such mandatory safety zone and believe an advisory safety zone would be sufficient. Final conclusion is expected by the end of 2016.

Statoil will be happy to participate in local information meetings arranged by local stakeholders in order to contribute to a best possible level of information being present locally about the Hywind wind turbines.

Defence Infrastructure Organisation

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Assistant Safeguarding Officer
Ministry of Defence
Safeguarding – Wind Energy
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Your Reference: Hywind-Licence number 05515/16/0

Our Reference: DIO 11159

Catarina Aires
Marine Scotland Licensing Operations Team
Scottish Government
375 Victoria Road,Aberdeen
AB11 9DB

24/02/2017

Dear Ms Aires,

Hywind Scotland Pilot Park Project –Plan for Construction Activities 2017

Thank you for consulting the Ministry of Defence (MOD) on the above Plan for Construction Activities in your communication dated 11/01/2017.

Based on the information provided, I can confirm that the MOD has no objections to the discharge of conditions relevant to the MOD as listed below:

- **Condition 3.2.2.6** - Development Specification and Layout Plan-DSLP
- **Condition 3.2.2.11** - Lighting and Marking Plan-LMP
- **Condition 3.2.2.10** - Cable Plan

We will comment on the discharge of the remaining conditions relevant to the MOD, not addressed within this submission, when we are consulted.

I hope this adequately explains our position on the matter. If you require further information or would like to discuss this matter further please do not hesitate to contact me.

Further information about the effects of wind turbines on MOD interests can be obtained from the following websites:

***MOD*:** https://www.gov.uk/government/publications/wind-farms-ministry-of-defence-safeguarding

Yours sincerely

Mrs Kalie Jagpal
Assistant Safeguarding Officer – Wind Energy
Defence Infrastructure Organisation

SAFEGUARDING SOLUTIONS TO DEFENCE NEEDS

marinescotland science

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The Scottish Government

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017/OW/HYWD-11 - HYWIND SCOTLAND PILOT PARK PROJECT – CONSTRUCTION PLAN

Marine Scotland Science (MSS) has reviewed the submitted construction plans and has provided the following comments.

marine fish ecology
MSS have no comments regarding marine fish ecology.

benthic ecology
MSS have no comments to make regarding benthic ecology

socio economics
MSS have no comments to make regarding socio economics

commercial fisheries
Construction plan covers all relevant licence conditions, including a Cable Plan and the Fisheries Management and Mitigation Strategy. It is noted that spacing between turbines is ca. 1400m. Mooring line lengths between ca. 700 to 900 m. It is assumed that fishing will not be able to take place neither during construction nor during operation of the project.

It is noted that discussions with SFF include the provision of a guard vessel.

Section 5 on the Cable Plan identifies coastal cable sections up to max. 2km total length where trenching is not expected to be successful due to soil conditions. It is stated that final conclusion on burial and need for rock-gravel berm installation will be made after cable installation is done. The fishing industry should be given an opinion to express the views on the type of burial/ berm installation options that minimise impact on their operations around Peterhead. It is noted that as part of section 10, ‘small size rock combined with exact placement’ will be used as additional protection measures for cable section not trenched to required depth. It is also noted that consultation strategy includes liaising with the SFF. The strategy should expand to local fishermen not currently represented by SFF.

MSS welcomes the statement regarding following FLOWW’s best practice guidance.

diadromous fish
This is a development of five floating wind turbines approximately 25 km off the coast of Peterhead. We note that the work for the Horizontal Directional Drilling for the cable landfall has now been carried out and that the other construction activities are expected to be carried out at specified times during 2017. MSS has no comments to make on the construction details in the context of diadromous fish which appear satisfactory in that context.

The Commitments Register which accompanies the Construction Plan states that there is a Marine Licence condition (3.2.1.6) that Statoil must participate in the monitoring requirements laid out in the National Research and Monitoring Strategy for Diadromous Fish ("NRMSD") as agreed with FRTRAG. The actual wording of the condition makes clear that it is actually the Scottish Ministers who need to agree the extent and nature of the participation.

> 5.2.1.6. National Research and Monitoring Strategy for Diadromous Fish ("NRMSD")
> The Licensee must, to the satisfaction of the Scottish Ministers, participate in the monitoring requirements as laid out in the NRMSD so far as they apply at a local level. The extent and nature of the Licensee's participation is to be agreed by the Scottish Ministers in consultation with the FTRAG.

MSS is not aware of any discussions with Hywind over what will be appropriate for it in the way of participation, and this needs to be urgently progressed by LOT with the involvement of MSS. Appropriate participation might take the form of work or contribution to studies which will assist in improving risk assessment in relation to diadromous fish as put forward in the NRMSD. Such work need not necessarily be solely relevant to the specific site. MSS notes that the Dee DSFB in its recent response to the PEMP consultatio, also considers it important that the Marine Licence condition is complied with. A 2015 email from the DSFB which it formed of an earlier email trail which the DSFB attached, specifically requested that the "Dee DSFB therefore want monitoring of migratory fish movements to be included in the monitoring programme. The exact details of this can be agreed with Dee DSFB post consent." The Dee DSFB considered that it was if the outline of the monitoring programme was agreed as part of the consenting process that this would address its main concerns. An email from Statoil which formed the start of the email trail indicated that the exact details of monitoring of migratory fish movements to be included would be agreed with the Dee DSFB post consent. There needs to be consideration of what the developer can do to meet both this requirement and the need to participate in the NRMSD.

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.

Yours sincerely

[redacted]

Paul Stainer

Marine Scotland Science

09 February 2017

Northern Lighthouse Board

CAPTAIN PHILLIP DAY
DIRECTOR OF MARINE OPERATIONS

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Your Ref: Email 110117/CA/Hywind OWF
Our Ref: AJ/OPS/ML/O6_14_385

Ms Catarina Aires
Marine Renewables Casework Manager
Marine Scotland Licensing Operations Team
Scottish Government
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

06 February 2017

Dear Catarina,

MARINE (SCOTLAND) ACT 2010
MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED)

We are in receipt of your email dated 11 January 2017 and the attached information submitted by **Hywind (Scotland) Ltd** in respect to the works, planning, safety and environmental statements and reports required to meet several licence conditions listed within Marine Licence 05515/16/0 issued to the Hywind Scotland Pilot Park Offshore Floating Wind Turbine project and the cable export route.

We note the following documents along with the relevant condition(s);

- Development Specification and Layout Plan, condition 3.2.2.6;
- Lighting and Marking Plan – LMP, condition 3.2.2.11;
- Construction Method Statement – CMS, condition 3.2.2.5;
- Cable Plan – CaP, condition 3.2.2.10;
- Vessel Management Plan – VMP, ref. condition 3.2.2.7;
- Construction Programme - CoP (Schedule), ref. condition 3.2.2.4;
- Baseline description, condition 3.2.2.10;
- Environmental Management Plan – EMP, condition 3.2.1.2, including chemical usage (condition 3.1.7)
- Fisheries Management and Mitigation Strategy – FMMS, condition 3.2.1.3;
- Emergency Response Co-operation Plans – ERCoP, conditions 3.2.1.7 and condition 3.2.1.10 to be discharged through separate documents
- Navigational Safety Plan – NSP, condition 3.2.2.8
- Marine Archaeology Reporting Protocol – MARP, condition 3.2.2.19

NLB are content that the submitted documentation including the information supplied at Appendix 1 (Hywind Scotland Commitments Register) will ensure that the conditions of the Marine Licence will be addressed and therefore we would have no additional comment to make in regards to Navigational Safety or the Navigational Marking and Lighting of the Offshore Wind Farm at this time.

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

SEPA
Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Our ref: PCS/150854
Your ref: 05515/16/0

If telephoning ask for:
Alison Wilson

27 January 2017

Catarina Aires
Marine Scotland
Marine Laboratory
PO Box101
375 Victoria Road
Aberdeen
AB11 9DB

By email only to: MS.MarineRenewables@gov.scot

Dear Ms Aires

Marine (Scotland) Act 2010
Marine and Coastal Access Act 2009 (as amended)
Discharge of conditions relating to Hywind Scotland Pilot Park

Thank you for your consultation email which SEPA received on the 11 January 2017, enclosing a Plan for Construction Activities 2017, submitted in support of the discharge of relevant stated conditions.

There are aspects of the plan that reference onshore elements, for example that "The only activities onshore in Scotland linked to the installation works will be the pull in of the export cable through the preinstalled HDD borehole, and possible personnel transport to and from vessels" and that any waste taken ashore will be done in consultation with the local SEPA office. However these do not raise any specific concerns for us. We have had ongoing liaison direct with the applicant to discuss our requirements in regard to example managing and disposing of any waste taken ashore.

As such we have no site specific advice on the marine consultation. 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.

If, after consulting this guidance, you still require our comment on some site specific issue which is not adequately dealt with 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 the consultation email or letter.

SEPA Aberdeen Office
Inverdee House, Baxter Street
Torry, Aberdeen AB11 9QA
tel 01224 266600 fax 01224 896657
www.sepa.org.uk • customer enquiries 03000 99 66 99

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.

Yours sincerely

Alison Wilson
Senior Planning Officer
Planning Service

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1 March 2017

Emailed to: ms.marinerenewables@gov.scot

Dear Catarina

HYWIND PLANS

With regard to this development the SFF, contrary to the impression given in the document C178-HYS-Z-GA-0001, having previously employed an onshore FLO for this development, had advised Statoil in August 2016 that they could not continue in this role and advised them to seek and employ an FLO, the SFF completed their FLO contract in December 2017. Therefore, it is now imperative that the company engage an onshore FLO to ensure proper liaison with the local fishing community.

There is some confusion in the papers provided as the Preliminary Burial Assessment would lead one to believe that less than 1km, from points 0.43-1.38km is unlikely to be buried, but in the paper on permanent deposits there is talk of 3.5km, therefore, prior to any cable works the SFF would expect clarity on these differences.

The SFF interpretation of the Preliminary Assessment would be the ideal, where the inshore section, used by Static Gear, is the only area needing protection, and the FLO should have a role in discussing this with SFF and the local creelers to ensure the appropriate use of mattresses or rock.

The quantities of rock and mattresses quoted in the deposits paper are very concerning, giving rise to the SFF consolidating the need for pre lay discussions and proper consultation on any deposits. Further this raises the need for a responsible fishing representative to be on-board the vessel performing the protection work to ensure this goes according to any agreement made with the fishing industry.

However, given that there are Scallop grounds en-route the SFF would insist that the cable is either fully buried or avoids them. If this is not achieved then SFF would insist on some form of mitigation being agreed before the work starts.

Given that the turbine array, by virtue of the mooring system will be a closed area to fishing, the protection in that area will not interfere with fishing activity but should be such that its removal at decommissioning time is straight forward in order to aid in returning the seabed to its original state.

At all stages of any rock protection the size of the rock is important and an agreement on berm sizes/ratios is essential – SFF would expect this to be the minimum of 1:2.5 but prefer 1:3.

The SFF would expect that before construction works begin, an agreement on need for local guard vessels is in place, particularly for any sections of work or moorings that are to be left on the seabed prior to completion of the project.

Yours sincerely,

Malcolm Morrison,
Scottish Fishermen's Federation