

**From:** [#ABZ Safeguarding](#)  
**To:** [MS Marine Renewables](#)  
**Subject:** RE: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016  
**Date:** 31 October 2016 16:07:26

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This proposal is located outwith the consultation zone for Aberdeen Airport. As such we have no comment to make and need not be consulted further.

Regards



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**From:** MS.MarineRenewables@gov.scot [mailto:MS.MarineRenewables@gov.scot]  
**Sent:** 19 October 2016 12:39  
**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Dear Sir /Madam,

**ELECTRICITY ACT 1989**

*The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended)*

*The Electricity (Applications For Consent) Regulations 1990 (as amended)*

**MARINE (SCOTLAND) ACT 2010**

*The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)*

**TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997**

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

**A DIRECTION UNDER SECTION 57 OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 THAT PLANNING PERMISSION FOR THE ANCILLARY ONSHORE DEVELOPMENT BE DEEMED TO BE GRANTED.**

On 19<sup>th</sup> October 2016 Dounreay Tri Limited (“the Applicant”) submitted an application to the Scottish Ministers under the above legislation to construct and operate the Dounreay Tri Floating Wind Demonstration Project at a site 6 km from the coast of Dounreay, Caithness. This application is supported by an environmental statement (“ES”).

As required by the above legislation, details of the application must be published for two consecutive weeks in the local and national press. Notices will appear in The Edinburgh Gazette, The Caithness Courier and The John O’Groats Journal.

The above legislation allows for representations to be made to the Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **30<sup>th</sup>**

## Drew J (Jessica)

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**From:** Drew J (Jessica)  
**Sent:** 22 November 2016 13:30  
**To:** Drew J (Jessica)  
**Subject:** FW: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

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**From:** [REDACTED]@openreach.co.uk [mailto:[REDACTED]@openreach.co.uk] **On Behalf Of** radionetworkprotection@bt.com  
**Sent:** 21 October 2016 09:33  
**To:** MS Marine Renewables  
**Subject:** RE: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

NIL response from BT Radio Network Protection

Regards

[REDACTED]  
**Radio Frequency Allocation & Network Protection**  
Tel: [REDACTED] Mobile [REDACTED] Web: [www.openreach.co.uk](http://www.openreach.co.uk)

---

**From:** [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot) [mailto:[MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)]  
**Sent:** 19 October 2016 12:39  
**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Dear Sir /Madam,

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## Drew J (Jessica)

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**From:** Windfarms <Windfarms.Windfarms@caa.co.uk>  
**Sent:** 30 November 2016 11:41  
**To:** Drew J (Jessica)  
**Subject:** 20161130CAAResponsePublicConsultationDounreayTriFloatingWindDemo

**Categories:** Green Category

Dear Jessica,

Having reviewed the Environmental Statement, the appropriate aviation consultees (NATS, the MOD (through DIO) have been identified; however, the positions of each consultee regarding the proposed development should be established by consultation.

In addition, there may be a number of unlicensed airfields in the area who could reasonably be expected to take an interest in the development. Associated Aerodrome Licence Holders or operators may have registered safeguarding maps with their LPAs or have other agreed means of notification and consultation. To verify the presence of aerodromes known to the CAA in any particular area, it is recommended that an aeronautical chart is purchased and the site of the turbine checked to see if it falls within the range of an aerodrome using the distances recommended in CAP 764.

It is also recommended that Emergency Service Helicopter Support Units are consulted as they may operate in the area of concern and be affected by the introduction of tall obstacles. For example Police helicopters are permitted to operate down to 75 feet and will routinely follow main roads and motorways during their operations. Both the Police and Air Ambulance may need to land anywhere and will also have specifically designated landing sites; Air Ambulance and Scottish Police need to be consulted, where appropriate, on a local level. In addition, for offshore developments, the Maritime and Coastguard Agency should be consulted.

Any structure of 150 metres or more must be lit in accordance with the Air Navigation Order and should be appropriately marked. Owing to the proposed height (maximum tip height xxxm) of the proposed turbines there is no CAA requirement for the turbines to be lit, although if an aviation stakeholder (including the MOD) made a request for lighting it is highly likely that the CAA would support such a request. Should the proposed maximum turbine heights increase, or turbine locations change, then previously consulted aviation stakeholders will need to be re-consulted to ensure that any impact assessments reflect such changes.

In terms of charting, CAA requirements are below. Please note, maximum height is to the blade tips, not just the hub or nacelle.:

### **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, [mail to dvof@mod.uk](mailto: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.

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 **Notice to Airmen** (NOTAM). To arrange an associated NOTAM, a developer should contact CAA Airspace Regulation

([AROps@caa.co.uk](mailto: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.

**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.

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

Yours Faithfully,

[Redacted]  
[Redacted]  
Surveillance Policy  
Airspace, ATM & Aerodromes  
Civil Aviation Authority



Tel: [Redacted]

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**From:** Jessica.Drew@gov.scot [mailto:Jessica.Drew@gov.scot]  
**Sent:** 29 November 2016 12:01  
**To:** Jessica.Drew@gov.scot  
**Subject:** FW: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

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**From:** MS Marine Renewables  
**Sent:** 19 October 2016 12:39  
**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Dear Sir /Madam,

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As required by the above legislation, details of the application must be published for two consecutive weeks in the local and national press. Notices will appear in The Edinburgh Gazette, The Caithness Courier and The John O’Groats Journal.

The above legislation allows for representations to be made to the Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **30<sup>th</sup> November 2016**. If you wish to submit a response, please send it to [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

If you have no comments to make on this proposal, please submit a ‘Nil Return’ response. If you require an extension to the consultation deadline, we would be grateful if you let us know before the closing date. If we have not received your comments, nor have we received any extension request by the closing date, we will assume you have no comments to make.

Marine Scotland Licensing Operations Team (“MS-LOT”) will make your representation publicly available. Personal information (such as name, signature, home and email address) will be redacted (blacked out) before the representation is made public. If you have any queries or concerns about how your personal data will be handled please visit the MS-LOT website <http://www.scotland.gov.uk/Topics/marine/Licensing/marine> or contact MS-LOT at [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot). Alternatively write to Marine Scotland Licensing Operations Team, Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB.

A copy of the ES has already been 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 MS-LOT as soon as possible.

A copy of the application is also available for download at:

<http://www.gov.scot/Topics/marine/Licensing/marine/scoping/DTFWDP>

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

Yours faithfully,

**Jessica Drew**  
**Marine Renewables Casework Officer**  
**Marine Scotland Licensing Operations Team**

Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

Direct Line: +44 (0)1224 295683

e. [jessica.drew@gov.scot](mailto:jessica.drew@gov.scot) / [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

w: <http://www.gov.scot/marinescotland>

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**From:** [Windfarms](#)  
**To:** [MS LOT Dounreay Tri Representations](#)  
**Subject:** 20161219CAAResponseDounreayTriFloatingWindDemonstrationProject  
**Date:** 19 December 2016 09:54:42

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Dear Sir/Madam,

Having reviewed the Environmental Statement provided, the appropriate aviation consultees (NATS, the MOD and Wick Airport) have been identified although the positions of each consultee regarding the proposed development should be established by consultation.

It is also recommended that Emergency Service Helicopter Support Units are consulted as they may operate in the area of concern and be affected by the introduction of tall obstacles. For example Police helicopters are permitted to operate down to 75 feet and will routinely follow main roads and motorways during their operations. Both the Police and Air Ambulance may need to land anywhere and will also have specifically designated landing sites. Air Ambulance and Scottish Police need to be consulted, where appropriate, on a local level. In addition, for offshore developments, the Maritime and Coastguard Agency should be consulted.

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

Yours Faithfully,



Surveillance Policy  
Airspace, ATM & Aerodromes  
Civil Aviation Authority



Tel: 020 7453 6534

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**From:** Jack Farnham [mailto:Jack.Farnham@res-group.com]  
**Sent:** 19 October 2016 10:13  
**To:** ms.marinelicensing@gov.scot  
**Subject:** Dounreay Tri Floating Wind Demonstration Project - Application Notice

Notice is hereby given that Dounreay Tri Limited registered under company registration SC515140 at Östgötagatan 100, 11664 Stockholm, Sweden, has applied to the Scottish Ministers for:

- consent under section 36 of the Electricity Act 1989;
- declaration under section 36A of the Electricity Act 1989;
- two marine licences under section 20 of the Marine (Scotland) Act 2010 and
- deemed planning permission under section 57(2) of the Town and Country Planning (Scotland) Act 1997.

to construct and operate the Dounreay Tri Floating Wind Demonstration Project located at least 6 km off Dounreay, at a site within a total area of 25km<sup>2</sup> (central latitude and longitude co-ordinates: 58° 39.093' N, 03° 50.976' W (WGS84)). The installed capacity of the proposed generating station would be up to 12 MW comprising 2 wind turbines with a maximum height of 210 metres above Lowest Astronomical Tide.

The applications, including plans showing the location, together with a copy of the environmental statement discussing the Dounreay Tri Floating Wind Demonstration Project proposals in more detail and presenting an analysis of the environmental implications, are available, at [www.hexicon.eu/projects/dounreaytri](http://www.hexicon.eu/projects/dounreaytri)

Hard copies of the applications, including plans showing the location, together with a copy of the environmental statement discussing the Dounreay Tri Floating Wind Demonstration Project proposals in more detail and presenting an analysis of the environmental implications, are available for inspection, free of charge, during normal office hours at:

Caithness Horizons Museum  
High Street  
Thurso  
KW14 8DD

Thurso Library  
Davidson's Lane  
Thurso  
KW14 7AF

The Highland Council  
Glenurquhart Road  
Inverness  
IV3 5NX

Orkney Island Council  
Council Offices  
School Place  
Kirkwall  
Orkney  
KW15 1NY

The Scottish Government  
Marine Scotland Licensing  
Operations Team  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

RES Offshore  
Forsyth House  
93 George Street  
Edinburgh  
EH2 3ES

The environmental statement can also be viewed at the Scottish Government Library at Victoria Quay, Edinburgh, EH6 6QQ.

Copies of the environmental statement may also be obtained from Dounreay Tri Limited (tel: 07827 970 512) at a charge of £240 hard copy and £10 on CD (including post and packaging). Copies of a short non-technical summary are available free of charge.

Any representations should be made in writing by email to: [DounreayTri.Representations@gov.scot](mailto:DounreayTri.Representations@gov.scot) or by post to The Scottish Government, Marine Scotland Licensing Operations Team, Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB, identifying the proposal and specifying grounds for objection or support, not later than 30<sup>th</sup> November 2016 although Ministers may consider representations received after this date. Representations should be dated and should clearly state the name (in block capitals) and the full return email or postal address of those making representation.

**Jack Farnham**  
Senior Developer

M +44 7827 970 512  
[jack.farnham@res-group.com](mailto:jack.farnham@res-group.com) | [www.res-offshore.com](http://www.res-offshore.com)



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Renewable Energy Systems Limited, registered in England and Wales with Company Number 1589961  
Registered Office: Beaufort Court, Egg Farm Lane, Kings Langley, Hertfordshire WD4 8LR

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By email to: [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

Ms Jessica Drew  
Marine Scotland  
Scottish Government  
Marine Planning & Policy Division  
Marine Laboratory  
375 Victoria Road  
ABERDEEN  
AB11 9DB

Longmore House  
Salisbury Place  
Edinburgh  
EH9 1SH

Enquiry Line: 0131-668-8716  
[HMConsultations@hes.scot](mailto:HMConsultations@hes.scot)

Our ref: AMN/16/H  
Our Case ID: 201603917  
30 November 2016

Dear Ms Drew

## **The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000**

### **Marine Scotland Act 2010**

### **Dounreay Tri Floating Wind Demonstration Project**

Thank you for the above consultation which we received on 19 October. We have considered it and its accompanying Environmental Statement (ES) for our historic environment interests. That is world heritage sites, scheduled monuments and their setting, category A-listed buildings and their setting, gardens and designed landscapes (GDLs) and battlefields in their respective Inventories and Historic Marine Protected Areas (HMPAs). In this case, our advice also includes matters relating to marine archaeology outwith the scope of the terrestrial planning system.

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

### **Historic Environment Scotland's Advice**

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 applications as an annex to this covering letter.

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

This response applies to the application currently proposed, an amended scheme may require another consultation with us.

### **Further Information**

We have a national remit for the historic environment, and we do not provide comments on every application.

Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at [www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes](http://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes). Technical advice is available on our Technical Conservation website at <http://conservation.historic-scotland.gov.uk/>.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is Victoria Clements and they can be contacted by phone on 0131 668 8730 or by email on [victoria.clements@hes.scot](mailto:victoria.clements@hes.scot).

Yours sincerely

**Historic Environment Scotland**

## **ANNEX**

### **Proposed Development**

We understand that the proposal relates to a development of a demonstration floating offshore wind farm, approximately 6km off Dounreay, Caithness. The proposed wind farm will consist of the following components:

- Offshore infrastructure (2 turbines with a maximum blade tip height of 185-201m, semi-submersible floating foundation, mooring lines and bouys, mooring clump weight, drag anchors, a single subsea cable and scour protection)
- Onshore infrastructure (cable landfall, cable transition joint bays, onshore cable and a substation or switchgear)

### **Background**

Historic Environment Scotland (HES) has previously been consulted on this proposed project at scoping and pre-application in February and March 2016. In our responses we identified that the proposed development may have setting impacts on a number of nationally important designated historic environment assets which should be assessed within the ES. We welcomed the assessment of potential impacts to undesignated marine historic environment assets and suggested that further geophysical survey work should be carried out to ensure significant impacts are avoided. We are content that the ES has provided an assessment of these assets.

### **Marine Assets**

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

We note that a full geophysical and geotechnical assessment has still to be completed; the ES outlines the proposed survey work and provides a mitigation strategy for dealing with significant impacts. Best practice would allow for the surveys to be completed prior to a design being finalised and consent being granted and this would ensure that any potential assets of national importance are avoided. We are content with the baseline information identified so far; however, we are concerned that without the surveys being completed the current mitigation strategy does not address the scenario of a nationally important find being made in an area where avoidance is not possible, along the cable route for example. By proposing to undertake further survey work post-consent, there is a risk to the project of reaching an impasse where you can neither excavate nor avoid a significant historic environment asset, rendering your cable route or site unusable.

Currently the mitigation strategy as stated in this circumstance would be to excavate, however, it is unlikely that HES would agree to mitigation of this nature where a nationally important find had been made. We would likely recommend preservation in situ. We would therefore recommend that such scenario should be included in the mitigation strategy and clearly outline what steps should be taken in such a situation.

Excepting the above issue, we are content with the information presented in the marine historic environment chapter of the ES and we note the potential for direct impacts on potential heritage assets of unknown significance. We would recommend that Marine Scotland set a condition requiring the developer to submit the proposed Written Scheme of Investigation (WSI) for approval by Historic Environment 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), as proposed in the ES, should be applied to any license granted, again to be approved by Historic Environment Scotland / Marine Scotland prior to the commencement of works on site.

## **Terrestrial Assets**

### Methodology

The section on cultural heritage significance criteria uses the criteria for determining national importance for scheduling as taken from the Scottish Historic Environment Policy (SHEP) Annex 1. While these criteria are suitable for identifying monuments of national importance they are not necessarily suitable for identifying significance of other types of historic environment asset, such as buildings or gardens and designed landscapes etc. and may not be suitable for considering significance of assets below the level of national importance. In addition Table 25-178 suggests that assets with low heritage value/significance are those which have poor preservation and/or poor survival of contextual characteristics. This could cause confusion as scheduled monuments will always be of high significance even if their context has been altered or they appear to have poor preservation.

Paragraph 25.36 suggests that visual factors in relation to setting will not apply to a cultural heritage asset which is not visible on the ground surface. We do not agree with this statement as the visual factors for, for example, a fort site which is only present as a cropmark will still be applicable and relevant. We also disagree with paragraph 25.37 as we consider that setting should be considered on a case by case basis and an asset does not need to be a prominent feature within a landscape to have an important setting.

Table 25-184 is described as Significance of Indirect Impact, however the descriptions in some of the rows refer to changes to 'fabric' of a receptor, which would be a direct impact.

### Assessment

At paragraph 25.65 it is stated that as the proposed substation building will be constructed adjacent to the existing Nuclear Facility and SSE substation there would be no additional effect on the setting of any onshore cultural heritage assets. This is reiterated in the summary (25.14). We consider that there will be an additional impact from the construction of a further large building (8m high), however this may not be a significant additional impact given the existing level of industrial buildings in the surrounding area. It would have been helpful if further detail had been provided to clarify the level of impact predicted here, given that no further assessment of impacts for this aspect of the project is provided in the individual assessments.

Overall in the individual asset assessments, it would have been useful if the distances from the assets to the turbines had been provided. There is a lack of clear definition of the setting of some of the assets before the assessment of impacts is described.

In a number of cases the presence of the Dounreay Nuclear Facility is described as reducing the contribution of setting to low, for example Cnoc Urray broch (SM 564) and Cnoc Stanger cairn (SM 458). Although it is clear that the presence of this facility has had an impact on the setting of some assets in its vicinity such as Cnoc Urray broch and Dounreay Castle (SM 6401) we do not agree that in all cases the facility has had such a significant impact on setting.

While we agree that the Dounreay facility impacts on the setting of Cnoc Urray broch to the north of the broch, the setting in other directions and other key views has not been impacted and further description of the setting of this site and further justification for the stated low contribution of setting would have been useful. At Cnoc Stanger cairn for example, the facility is over 2km to the north-east and does not impact on the views out from the cairn. We would also question whether the presence of Reay golf course has a significant impact on the setting of this site given that key views to and from the monument do not appear to be blocked, however we are content that the impacts to the setting of these monuments will not raise issues of national importance.

With regard to Achunabust broch (SM 513), without further description of the setting of the monument we would find it difficult to accept that the presence of footings of a more recent building would reduce the contribution of setting to low. We would have preferred more explanation of why low level (footings) reduces the contribution of setting to such an extent, however given the distance to the proposed turbines we are content that the setting impacts will not be significant.

Cnoc Freiceadain long cairns (SM 90078) are described as being located in a prominent topographical location but within a recent farming landscape. There are therefore criteria that fit two categories of contribution of setting, high and medium. If the setting is judged to have only a medium contribution rather than high we would expect further explanation of why this is the case, however, we consider that the setting impacts will not raise issues of national significance for this site.

Balligill Burn limekilns (SM 4290) are described as having a setting which has been little altered and yet this is determined to be only a medium contribution of setting. If this is the case then we would expect further explanation of why this little altered setting does not make a high contribution to significance. We consider that the setting impacts to this monument will not be so significant as to raise issues of national importance.

Reay Parish Church and enclosure wall (LB 14992) is determined to have a medium contribution of setting but the setting is not defined or described apart from to say that it is isolated. Further description of why this isolation makes a positive contribution to understanding and appreciation would have been helpful, however given the distance to the turbines we are content that the impacts will not raise issues of national importance.

On a number of occasions the assessments refer to wireframes which were provided to ORCA when they carried out their assessment, however, these wireframes do not appear to have been provided with the chapter, nor are there other visualisations specifically prepared for this chapter. It would have been useful had the wireframes been made available to assist with our review of the assessments.

Overall, we are content to agree that while there may be some significant impacts on the setting of some of the assets within our remit from the offshore turbines we are content that the impacts will not raise issues of national importance.

### **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 issues of national importance. We are content with the proposed scheme provided that the above suggestions are implemented and as such we have no significant concerns with the application.

### **Historic Environment Scotland**

30 November 2016



Maritime &  
Coastguard  
Agency

Bay 2/20  
Spring Place  
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SO15 1EG  
UK

Tel: +44 (0)20 3817 2433  
E-mail: [nick.salter@mcga.gov.uk](mailto:nick.salter@mcga.gov.uk)

Jessica Drew  
Marine Scotland Licensing  
Operations Team

Your ref:  
Our ref:

By email to: [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

30 November 2016

Dear Jessica

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

Thank you for your email dated 19 October 2016 inviting comment on the Environmental Statement (ES) and two marine licence applications to construct and operate the Dounreay Tri Floating Wind Demonstration Project.

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**

MGN 543 Annex 2 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.

### **Mooring system**

It is noted under Section 1.102 of the Non-Technical Summary and Table 13-67 of the ES that Dounreay Tri Ltd has employed American Bureau of Shipping (ABS) to ensure the floating platform complies with floating wind design standards. This verification should also include an assessment on the suitability of the mooring system. In this regard we recommend the applicant follows the HSE guidance for Offshore Installation Moorings (ref: Offshore Information Sheet No 4/2013 – Revision 2), as appropriate.



HM Coastguard



INVESTORS  
IN PEOPLE | Silver

## **Safety Zones**

Safety Zones around the turbines 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. MCA is content to discuss this further with the applicant.

## **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.

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 for the construction and operation phases. The template is available on the MCA website at <https://www.gov.uk/government/publications/offshore-renewable-energy-installations-orei>. An approved ERCOP will need to be in place prior to construction.

## **Aviation Lighting**

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

## **Marine Licence Applications**

In addition to MCA providing comment to the post-consent plans (ERCoP, Navigation Safety Plan, Cable Plan, Construction Programme, Lighting & Marking Plan and Operation & Maintenance Programme), we would like to request the following conditions are applied:

1. The Licencee must ensure that local mariners and fishermen's organisations are made fully aware of the activity through local notices to mariners.
2. The Licencee must ensure that HM Coastguard, in this case [nmoccontroller@hmcg.gov.uk](mailto:nmoccontroller@hmcg.gov.uk), The National Maritime Operations Centre is made aware of the works prior to commencement.
3. The Licencee must notify the UK Hydrographic Office to permit the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.
4. Any consented cable/pipeline 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 but under no circumstances should depth reductions compromise safe navigation.

5. As per the requirements of MCA's MGN 543 and supplementary updates, the Licencee must complete periodic hydrographic surveys of the consented area or subsections thereof, to the IHO Order 1a survey standard. On completion of these surveys the results and a corresponding report of survey must be supplied to the UKHO, with notification to the MCA Hydrography Manager.
6. No radio beacon or radar beacon operating in the Marine frequency bands shall be installed or used on the works without prior written approval by OFCOM.

### **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.

Yours sincerely



Nick Salter  
Offshore Renewables Advisor  
Navigation Safety Branch

cc. Peter Lawson, Offshore Energy Liaison Officer, HM Coastguard, MCA



Maritime &  
Coastguard  
Agency

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E-mail: [REDACTED]@mcga.gov.uk

Jessica Drew  
Marine Scotland Licensing  
Operations Team

Your ref:  
Our ref:

By email to: [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

22 November 2016

Dear Jessica

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

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HM Coastguard



INVESTORS  
IN PEOPLE | Silver

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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.

Yours sincerely



Nick Salter  
Offshore Renewables Advisor  
Navigation Safety Branch

cc. Peter Lowson, Offshore Energy Liaison Officer, HM Coastguard, MCA



# Defence Infrastructure Organisation

Kalie Jagpal  
Assistant Safeguarding Officer  
Ministry of Defence  
Safeguarding – Wind Energy  
Kingston Road  
Sutton Coldfield  
West Midlands B75 7RL  
United Kingdom

**Your Reference: Section 36**

Telephone [MOD]: +44 (0)121 311 3674

Facsimile [MOD]: +44 (0)121 311 2218

**Our Reference: DIO 10035413**

E-mail: DIOSEE-EPSSG2a2@mod.uk

Jessica Drew  
Marine Scotland Licensing Operations  
Team  
Marine Laboratory,  
375 Victoria Road  
Aberdeen  
AB11 9DB

06/12/2016

Dear Ms Drew

**Please quote in any correspondence: DIO 10035413**

**Site Name: Dounreay Offshore Windfarm**

**Proposal: Erection of 2 Wind Turbines**

**Planning Application Number: Section 36**

**Site Address: 6km From The Coast Of Dounreay, Caithness**

Thank you for consulting the Ministry of Defence (MOD) on the above Planning Application in your communication dated 22/11/2016.

I am writing to tell you that the MOD has no objection to the proposal.

The application is for 2 turbines at 201.00 metres to blade tip. This has been assessed using the 4 corner point grid references below as submitted in the planning application or in the developers' or your pro-forma. The turbines will be located within this area.

Turbine	100km Square letter	Easting	Northing
1	NC	90302	77768
2	NC	95301	77695
3	NC	95226	72693
4	NC	90227	72769

In the interests of air safety, the MOD request that the turbines are fitted with aviation safety lighting in accordance with CAA direction and CAP 93 Air Navigation Order section 1 part 28.

The principal safeguarding concern of the MOD with respect to the development of wind turbines relates to their potential to create a physical obstruction to air traffic movements and cause interference to Air Traffic Control and Air Defence radar installations.

Defence Infrastructure Organisation Safeguarding wishes to be consulted and notified of the progression of planning applications and submissions relating to this proposal to verify that it will not adversely affect defence interests.

If planning permission is granted we would like to be advised of the following prior to commencement of construction;

- the date construction starts and ends;
- the maximum height of construction equipment;
- the latitude and longitude of every turbine.

This information is vital as it will be plotted on flying charts to make sure that military aircraft avoid this area.

If the application is altered in any way we must be consulted again as even the slightest change could unacceptably affect us.

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**





# Defence Infrastructure Organisation

Kalie Jagpal  
Assistant Safeguarding Officer  
Ministry of Defence  
Safeguarding – Wind Energy  
Kingston Road  
Sutton Coldfield  
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United Kingdom

**Your Reference: Section 36**

Telephone [MOD]: +44 (0)121 311 3674

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**Our Reference: DIO 10035413**

E-mail: DIOSEE-EPSSG2a2@mod.uk

Jessica Drew  
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Marine Laboratory,  
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Aberdeen  
AB11 9DB

06/12/2016

Dear Ms Drew

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Yours sincerely

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

**SAFEGUARDING SOLUTIONS TO DEFENCE NEEDS**



Jessica Drew  
Licensing Operations Team  
Marine Scotland  
375 Victoria Road  
Aberdeen  
AB11 9DB

## **DOUNREAY TRI (OFFSHORE WIND FARM): PUBLIC CONSULTATION ON DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT - REQUEST FOR MSS COMMENTS**

Marine Scotland Science (MSS) has reviewed the submitted public consultation documents and has provided the following comments.

### **marine mammals**

MSS agree with the list of impacts assessed and also agree that due to the lack of pile driving, this project presents a much reduced risk of acoustic injury or disturbance to marine mammals. Indeed, the main activities with the potential to cause disturbance are vessel traffic and cable laying.

Consideration does not appear to have been given to the proximity of the development site to the Inner Hebrides and the Minches cSAC for harbour porpoise. The document entitled "Information to Inform a Habitats Regulations Appraisal" does not include this site. While we consider that it is unlikely that this development will have an adverse effect on the SAC, we also consider that the site should have been included in the documentation provided.

We agree that a vessel management plan should be produced for the construction period, and that consideration should be given to a similar plan for during the operation of the wind farm. We recommend that consideration should be given to reducing the number of vessels and their duration on site wherever reasonably possible. We also recommend that the behaviour of vessels should be in line with the Scottish marine wildlife watching code, to reduce the impact to any mammals from interaction with the vessels.

During operation, MSS agrees that the risk of entanglement for marine mammals in the vertical clump lines is very small. We also agree that the risk of entanglement in the catenary lines is small for seals and cetaceans. We consider that the effects of "ghost fishing" whereby derelict fishing gear becomes entangled on the mooring lines, and has the potential to then entangle marine mammals, are very difficult to quantify at this stage. We recommend that a monitoring programme is put in place to inspect the mooring lines for such debris and where possible, to remove it. We recommend that details of the frequency of inspections and their outcome is reported to MS-LOT.

### **marine fish ecology**

MSS is broadly in agreement with the assessments of Marine Fish species within the ES and accordingly has no points of concern to raise. The removal of debris, including fishing gear, from moorings and cables is welcomed.

### **diadromous fish**

This is a small demonstration development and MSS would agree that the main potential mechanisms for impact on diadromous fish in the marine environment have been considered, and mitigation measures considered, although there are points of detail in the information presented which are incorrect. MSS has commented at various earlier stages and has already agreed with the conclusion of no LSE on the three salmon SACs which are considered, which lie closest to the development, and that no appraisal is required for salmon SACs further afield.

The main issue for consideration is what level of engagement with the National Research and Monitoring Strategy for Diadromous Fish will be appropriate for this development and what needs to go into consent and licence conditions in relation to this. There needs to be discussion between MSS and LOT to agree the line to be taken on this.

### **benthic ecology**

MSS is generally happy with the assessments of the impacts to benthic ecology however a few topics require refinement

We have concerns over the reliance of the developer on multibeam data (obtained from MSS and acknowledged to be of relatively low resolution) to produce maps of local bathymetry and to inform biotope allocation in the development area and along the cable corridor. We believe further high resolution video and acoustic surveys should be completed over these areas and used to create more robust mapping, to increase reliability of biotope distributions and to inform on the conditions found on the site of any possible dredging activity

Increases in suspended sediment loads and smothering impacts from cable trenching activities should be further considered.

The impact of cable installation on the beach dynamics and the biota of Sandside Bay should be examined

### **commercial fisheries**

MSS has reviewed the ES documentation for the construction of the Hexicon multi-turbine floating foundation demonstration project hosting 2 x 8-12 MW offshore wind turbine generators in Scottish waters (at Dounreay site in Caithness).

ES documents provide information that Dounreay site is lying out-with intensively fished areas. The documents also provides evidence of early engagement with the fishing industry since 2014.

Project description does not provide clear description of the type of scour protection for the anchors and the export cable. This should be included in the Cable Burial Plan.

The suggested mitigation options (FMP & FLO) for the moderate impacts to individual inshore creel fishermen from the exclusion to traditional fishing grounds during construction are considered satisfactory. The suggested mitigation option (operational safety zone) for the moderate impacts to all four fisheries from the risk of gear damage/ loss is considered satisfactory. It is understood that there has been no additional mitigation option recommendation for the permanent exclusion to traditional fishing grounds, due to the low intensity of activity, small operational footprint of the proposed safety zone and availability of fishing grounds in the wider sea area. Mitigation option for the export cable (6km off the coast) include a Cable Burial Plan and Cable Protection Monitoring. Impacted fishermen should be given the opportunity to review and influence both documents.

MSS is content with the conclusion that there are no significant impacts to be expected on the identified fisheries arising from the Project proposals assuming all the above conditions are met.

### **physical environment**

MSS have no specific comments or concerns. We have previously requested clarification regarding historic contaminated sediments, but has been adequately addressed in the ES.

**aquaculture**

MSS aquaculture planning have no specific comments to make on the application to the Scottish Ministers to construct and operate the Dounreay Tri Floating Wind Demonstration Project. There are no further comments to add to those made in February 2016 in response to the Scoping Opinion request for the proposed section 36 application and marine licence application for Dounreay Tri Floating Demonstration Project.

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

07 December 2016

## Drew J (Jessica)

---

**From:** Drew J (Jessica)  
**Sent:** 22 November 2016 13:30  
**To:** Drew J (Jessica)  
**Subject:** FW: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016 (Our Ref: SG23851)

---

**From:** [REDACTED] [mailto:[REDACTED]@nats.co.uk] **On Behalf Of** NATS Safeguarding  
**Sent:** 20 October 2016 13:02  
**To:** MS Marine Renewables  
**Subject:** RE: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016 (Our Ref: SG23851)

Good Afternoon,

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours faithfully,

[REDACTED]  
Technical Administrator  
On behalf of NERL Safeguarding Office

---

**From:** [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot) [mailto:[MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)]  
**Sent:** 19 October 2016 12:39  
**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Dear Sir /Madam,

### **ELECTRICITY ACT 1989**

*The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended)*

*The Electricity (Applications For Consent) Regulations 1990 (as amended)*

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

*The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)*

### **TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997**

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

**A DIRECTION UNDER SECTION 57 OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 THAT PLANNING PERMISSION FOR THE ANCILLARY ONSHORE DEVELOPMENT BE DEEMED TO BE GRANTED.**

On 19<sup>th</sup> October 2016 Dounreay Tri Limited (“the Applicant”) submitted an application to the Scottish Ministers under the above legislation to construct and operate the Dounreay Tri Floating Wind Demonstration Project at a site 6 km from the coast of Dounreay, Caithness. This application is supported by an environmental statement (“ES”).

As required by the above legislation, details of the application must be published for two consecutive weeks in the local and national press. Notices will appear in The Edinburgh Gazette, The Caithness Courier and The John O’Groats Journal.

The above legislation allows for representations to be made to the Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **30<sup>th</sup> November 2016**. If you wish to submit a response, please send it to [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

If you have no comments to make on this proposal, please submit a ‘Nil Return’ response. If you require an extension to the consultation deadline, we would be grateful if you let us know before the closing date. If we have not received your comments, nor have we received any extension request by the closing date, we will assume you have no comments to make.

Marine Scotland Licensing Operations Team (“MS-LOT”) will make your representation publicly available. Personal information (such as name, signature, home and email address) will be redacted (blacked out) before the representation is made public. If you have any queries or concerns about how your personal data will be handled please visit the MS-LOT website <http://www.scotland.gov.uk/Topics/marine/Licensing/marine> or contact MS-LOT at [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot). Alternatively write to Marine Scotland Licensing Operations Team, Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB.

A copy of the ES has already been 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 MS-LOT as soon as possible.

A copy of the application is also available for download at:

<http://www.gov.scot/Topics/marine/Licensing/marine/scoping/DTFWDP>

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

Yours faithfully,

**Jessica Drew**  
**Marine Renewables Casework Officer**  
**Marine Scotland Licensing Operations Team**

Scottish Government  
Marine Laboratory  
375 Victoria Road

Aberdeen  
AB11 9DB

Direct Line: +44 (0)1224 295683

e. [jessica.drew@gov.scot](mailto:jessica.drew@gov.scot) / [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

w: <http://www.gov.scot/marinescotland>

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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-Ã"ifeachdach 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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**Drew J (Jessica)**

---

**Subject:** FW: Public Consultation on Dounreay Tri Floating Wind Demonstration Project

**From:** [REDACTED] (Bilfinger GVA) [[mailto:\[REDACTED\]@gva.co.uk](mailto:[REDACTED]@gva.co.uk)]  
**Sent:** 01 December 2016 17:42  
**To:** MS Marine Renewables  
**Cc:** [REDACTED] ([REDACTED]@nda.gov.uk)  
**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project

Dear Sirs

I confirm as agent to the Nuclear Decommissioning Authority that they do not wish to comment on the proposal but thank you for the opportunity to do so.

Regards

[REDACTED] Senior Director, Energy and Natural Resources, Bilfinger GVA  
Direct Dial: 0151 471 6751 - Email: [REDACTED]@gva.co.uk Mobile: [REDACTED]  
Web: [www.gva.co.uk](http://www.gva.co.uk) - National Number: 08449 02 03 04

The image contains the Bilfinger and GVA logos on the left. To the right, the address is listed: No.4 St Pauls Square, Old Hall Street, Liverpool L3 9SJ. Below the logos is a green message: 'Save a tree... please don't print this e-mail unless you really need to'. To the right of this message is a Twitter icon and the text 'Follow Bilfinger GVA on Twitter'.

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**From:** [REDACTED]  
**To:** [MS Marine Renewables](#)  
**Subject:** Re: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016  
**Date:** 28 November 2016 17:05:36

---

Dear Sirs

Thank you for the opportunity to comment on the proposed Dounreay Tri Offshore Wind Farm.

The Northern District Salmon Fishery Board has no specific comments with regards this proposal because, although the boundaries of the proposed installation site are large, the demonstration device itself is rather compact and relatively far offshore. With respect to the cable corridor, the ES adequately deals with the potential issues.

Kind regards,

Yours faithfully

[REDACTED]

[REDACTED]

Clerk  
The Northern District Salmon Fishery Board

Tel: 07947 025442

email: [REDACTED]

website: <http://northern.dsfb.org.uk>

On Wed, Oct 19, 2016 at 12:39 PM, <[MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)> wrote:

Dear Sir /Madam,

**ELECTRICITY ACT 1989**

*The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended)*

*The Electricity (Applications For Consent) Regulations 1990 (as amended)*

**MARINE (SCOTLAND) ACT 2010**

*The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)*

**TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997**

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

**A DIRECTION UNDER SECTION 57 OF THE TOWN AND COUNTRY**

# Northern Lighthouse Board

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

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)



Your Ref: Email – JD191016-Dounreay Tri  
Our Ref: AJ/OPS/ML/O6\_17\_358

Jessica Drew  
Marine Licensing Casework Officer  
Marine Scotland – Marine Planning and Policy  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

22 November 2016

Dear Jessica

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE THE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, DOUNREAY, CAITHNESS.**

Thank you for your correspondence dated 19 October 2016 requesting a response to the applications submitted by **Dounreay Tri Limited (DTL)** in connection with construction and operation of a floating offshore wind turbine demonstration site, including an export cable and grid connection, at their Dounreay Site in Caithness.

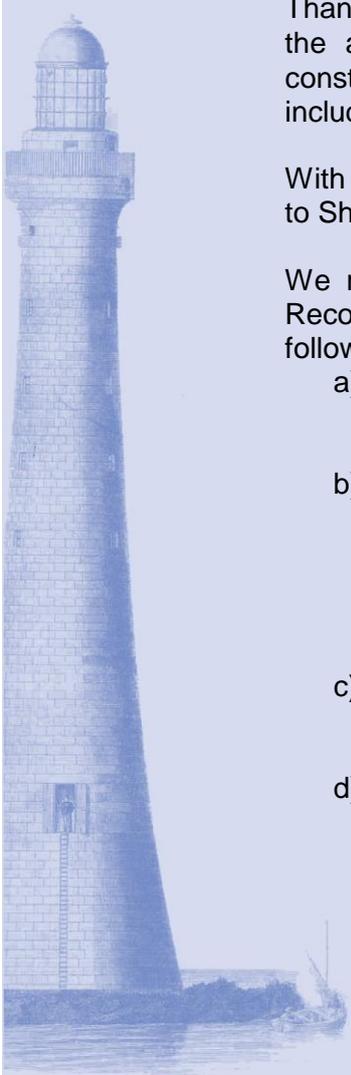
With regard to the proposed application we would only comment on that part relating to Shipping and Navigational Safety.

We require that the turbine platform should be marked in accordance with IALA Recommendation O-139 on The Marking of Man-Made Offshore Structures as follows:

- a) The platform and the structure of each wind generator should be painted yellow all round from sea level to 15 metres or the height of the Aid to Navigation, if fitted, whichever is greater.
- b) Each wind generator shall be fitted with lights visible from all directions in the horizontal plane. These lights should flash yellow once every 5 seconds, with a range of 5 nautical miles. All lights on these structures should be synchronised. These lights should comply with IALA recommendations and have an availability of not less than 99.8% (IALA Category 1), calculated over a rolling 3 year period.
- c) All navigation lights should be mounted below the lowest point of the arc of the rotor blades. They should be exhibited at a height of at least 6 metres above HAT.
- d) The platform should also be fitted with a sound signal with a nominal range of two nautical miles, placed not less than 6 metres and not more than 30 metres above sea level. The character should be rhythmic blasts corresponding to morse letter 'U' every 30 seconds. The minimum duration of the short blast shall be 0.75 seconds and the sound signal should be operated

the safety of

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



when the meteorological visibility is two nautical miles or less. The sound signal should comply with IALA recommendations and have an availability of not less than 97.0% (IALA Category 3), calculated over a rolling 3 year period.

- e) The structure shall display identification panels with black letters or numbers 1 metre high on a yellow background visible in all directions. These panels shall be easily visible in daylight as well as at night, either by the use of illumination or retro-reflecting material.
- f) Aviation lighting should be fitted as required by the Civil Aviation Authority.

The requirement to mark the turbine platform for the purpose of Aviation and Search and Rescue operations should be sought from the Civil Aviation Authority. NLB request that the Morse 'W' indication identified for aviation marking is installed for this purpose.

We also require monitoring of the position of the turbine platform in order that should the device part its moorings and become mobile, then the mariner can be informed of any possible danger as soon as is practicably possible.

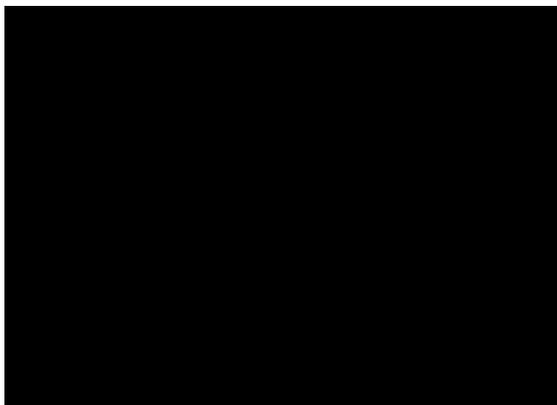
Navigational warnings must be promulgated prior to the commencement of any works related to the project in the marine environment.

The cable landing site should be marked by a Cable Marker Board.

The United Kingdom Hydrographic Office must be informed of the device, location and cable route in order that the relevant Admiralty Charts are updated.

All navigational marking and lighting of 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 any of the above may require clarification.



## Drew J (Jessica)

---

**Subject:** FW: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

**From:** Andrew Blake [mailto:Andrew.Blake@orkney.gcsx.gov.uk]

**Sent:** 02 December 2016 09:09

**To:** Drew J (Jessica)

**Subject:** RE: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Hi Jessica

OIC Marine Services had no comment to make on the onshore part of the application.

However, there may be comment in respect of the wet end.

Regards

A

Andrew Blake  
Port Marine Safety and Counter Pollution Manager  
Development & Infrastructure  
**Marine Services**  
Harbour Authority Building  
Scapa  
Orkney KW15 1SD  
Telephone: +44 (0)1856 873636 Ext 3604  
Direct Dial: +44 (0)1856 885212  
Mobile: +44 (0)7808 717834  
Fax: +44 (0)1856 873012  
Email: [andrew.blake@orkney.gov.uk](mailto:andrew.blake@orkney.gov.uk)  
Web: [www.orkneyharbours.com](http://www.orkneyharbours.com)

---

**From:** [Jessica.Drew@gov.scot](mailto:Jessica.Drew@gov.scot) [mailto:[Jessica.Drew@gov.scot](mailto:Jessica.Drew@gov.scot)]

**Sent:** 29 November 2016 12:01

**To:** [Jessica.Drew@gov.scot](mailto:Jessica.Drew@gov.scot)

**Subject:** FW: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

---

**From:** MS Marine Renewables

**Sent:** 19 October 2016 12:39

**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Dear Sir /Madam,

### **ELECTRICITY ACT 1989**

*The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended)*

*The Electricity (Applications For Consent) Regulations 1990 (as amended)*

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

**TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997**

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

**A DIRECTION UNDER SECTION 57 OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 THAT PLANNING PERMISSION FOR THE ANCILLARY ONSHORE DEVELOPMENT BE DEEMED TO BE GRANTED.**

On 19<sup>th</sup> October 2016 Dounreay Tri Limited (“the Applicant”) submitted an application to the Scottish Ministers under the above legislation to construct and operate the Dounreay Tri Floating Wind Demonstration Project at a site 6 km from the coast of Dounreay, Caithness. This application is supported by an environmental statement (“ES”).

As required by the above legislation, details of the application must be published for two consecutive weeks in the local and national press. Notices will appear in The Edinburgh Gazette, The Caithness Courier and The John O’Groats Journal.

The above legislation allows for representations to be made to the Scottish Ministers. The closing date for any comments you may wish to make on the above proposal is **30<sup>th</sup> November 2016**. If you wish to submit a response, please send it to [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

If you have no comments to make on this proposal, please submit a ‘Nil Return’ response. If you require an extension to the consultation deadline, we would be grateful if you let us know before the closing date. If we have not received your comments, nor have we received any extension request by the closing date, we will assume you have no comments to make.

Marine Scotland Licensing Operations Team (“MS-LOT”) will make your representation publicly available. Personal information (such as name, signature, home and email address) will be redacted (blacked out) before the representation is made public. If you have any queries or concerns about how your personal data will be handled please visit the MS-LOT website <http://www.scotland.gov.uk/Topics/marine/Licensing/marine> or contact MS-LOT at [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot). Alternatively write to Marine Scotland Licensing Operations Team, Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB.

A copy of the ES has already been 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 MS-LOT as soon as possible.

A copy of the application is also available for download at:

<http://www.gov.scot/Topics/marine/Licensing/marine/scoping/DTFWDP>

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

Yours faithfully,

**Jessica Drew**  
**Marine Renewables Casework Officer**  
**Marine Scotland Licensing Operations Team**

Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

Direct Line: +44 (0)1224 295683

e. [jessica.drew@gov.scot](mailto:jessica.drew@gov.scot) / [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

w: <http://www.gov.scot/marinescotland>

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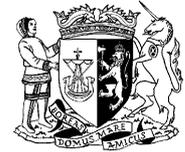
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## DEVELOPMENT AND INFRASTRUCTURE

**Executive Director:** Gavin Barr, BSc Hons, MSc URP, MRTPI  
Council Offices, Kirkwall, Orkney, KW15 1NY

Tel: (01856) 873535  
Fax: (01856) 876094

Website: [www.orkney.gov.uk](http://www.orkney.gov.uk)  
Email: [planning@orkney.gov.uk](mailto:planning@orkney.gov.uk)



**ORKNEY**  
ISLANDS COUNCIL

6<sup>th</sup> February 2017

Jessica Drew  
Marine Renewable Casework Officer  
Marine Scotland – Marine Planning and Policy Division  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

Dear Ms Drew

### **ELECTRICITY ACT 1989**

*The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended)*  
*The Electricity (Applications for Consent) Regulations 1990*

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

*The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)*

### **APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 AND A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT TO CONSTRUCT AND OPERATE THE DOUNREAY TRI LIMITED AT A SITE 6KM NW OF DOUNREAY NUCLEAR RESEARCH ESTABLISHMENT, DOUNREAY**

Thank you for your consultation on the proposed Dounreay Tri Limited Project. The project comprises construction of two offshore wind turbines on a single floating platform, each with an installed capacity of up to 6MW (max rotor tip of 201m and max hub height of 124m above the lowest astronomical tide), installation of export cable and erection of onshore electricity substation.

We have considered the Environmental Statement (ES) and supporting documents and reviewed the committee report undertaken by Highland Council, as this development falls largely within the Highland Council area. Orkney Islands Council (OIC) have only been consulted as part of a neighbouring authority as the development falls within the Pentland Firth and Orkney Waters Spatial Plan area. We are satisfied with the report put forward by Highland Council and are happy to take our lead from them on this application. Below are details of the relevant policy consideration and some particular points raised in addition to those raised by Highland Council.

The Orkney Local Development Plan 2014 and The Proposed Orkney Development Plan (with minor modifications) 2016 and Supplementary Guidance along with the Pentland Firth and Orkney Waters Marine Spatial Plan supports the principle of renewable energy and sustainable development to deliver Scottish Government policy for renewable energy.

The following policies of The Pentland Firth and Orkney Waters Marine Spatial Plan are particularly relevant to this application:-

- General Policy 1A: Sustainable development
- General Policy 1B: Supporting sustainable social and economic benefits
- General Policy 1C: Safeguarding the marine ecosystem
- General Policy 2: The well-being, quality of life and amenity of coastal communities
- General Policy 3: Climate change
- General Policy 4A: Nature conservation designations
- General Policy 4B: Protected species
- General Policy 4C: Wider biodiversity

General Policy 4D: Landscape and seascape  
General Policy 4E: Geodiversity  
General Policy 5A: Water environment  
General Policy 5B: Coastal processes and flooding  
General Policy 7: Integrating coastal and marine  
General Policy 8A: Noise  
General Policy 8B: Waste and marine litter  
General Policy 9: Invasive non-native species

#### Sectoral Policies

Sectoral Policy 1: Commercial fisheries  
Sectoral Policy 4: Renewable energy generation  
Sectoral Policy 5: Recreation, sport, leisure and tourism  
Sectoral Policy 6: Marine transport  
Sectoral Policy 7: Ports, harbours and dredging  
Sectoral Policy 8: Pipelines, electricity and telecommunications infrastructure

We consulted internally within the Council but no additional comments were raised. Wider consultation with other agencies was not undertaken by the OIC.

#### **Comments:**

##### **Deployment/Operation and Maintenance**

Only limit information has been provided on the requirements for deployment and O&M. If a harbour area or pier in the Orkney area is to be used, the method of deployment and full details of route(s) to be used from the selected harbour/port facility to the site will be required. Full discussion will require to be undertaken with the Harbours Authority and Orkney Islands Council Planning service. This will enable us to fully assess the impacts of the chosen routes on existing routes to and within Orkney.

##### **Subsea cable**

It is noted within your report at para. 1.132 that the current area of search for the landfall location for the Orkney to Caithness interconnector is within the proposed area of search for the Project's landfall and export cable at East Sandside in Reay. However at para 1.134 it is stated that where there is potential for overlap of Project infrastructure or construction activity with proposed developments in the area i.e. SHE-T Orkney-Caithness interconnector and HIE'S DDC for offshore floating wind, these will be mitigated through consultation and collaboration with developers to ensure there is no significant conflict. Given the limited locations where the interconnector subsea cable between Orkney and Caithness can take place it is important that early discussion takes place on this matter to ensure that we can meet the needs of Orkney and the wider area meeting a key ambition of NPF3 which is the delivery of the Scottish Government's low carbon strategy. NPF3 states that interconnectors to Orkney and onshore connections for offshore renewables on other parts of the coast are all required to fully realise the potential for diverse and widely distributed renewable energy development.

##### **Landscape/Seascape**

I am pleased to see that the ES considered the visual impacts of the development on the west coast of Orkney along with that of the NSA (Hoy and West Mainland –Orkney) and the Wild Land Area of Hoy. The ES assessed the development to be acceptable taking account of the relevant matters and impacts on landscape/seascape. OIC considers that given the proximity of the development to Orkney and the ferry routes to and from Orkney, that the development will not have a significant adverse visual impact.

If you wish to discuss this further please do not hesitate to contact me.

Yours sincerely

Margaret Gillon MRTPI  
Senior Planner

**Drew J (Jessica)**

---

**From:** pentland firth yacht club <pfyc@btinternet.com>  
**Sent:** 01 December 2016 09:47  
**To:** MS Marine Renewables  
**Cc:** Drew J (Jessica)  
**Subject:** Dounreay Tri

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

Dear Sir / Madam,

I apologise for the late response. The Pentland Firth Yacht Club has no objections to the development of the Tri demonstration project. As long as any sea activities are well marked we do not foresee that there will be any particular increase in hazard or disruption to passing yachts and we do not sail dinghies in that area. Indeed we would like to offer our best wishes to the developers.

  
Pentland Firth Yacht Club  
Scrabster Harbour

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**From:** Drew J (Jessica)  
**To:** [Ferguson V \(Val\)](#)  
**Cc:** [Keir A \(Alan\) \(MARLAB\)](#); [Crookston C \(Claire\)](#)  
**Subject:** RE: CONSULTATION END - DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT  
**Date:** 05 December 2016 08:17:00  
**Attachments:** [image001.png](#)  
[image002.png](#)

---

Good morning Val

Thank you for forwarding your response.

Kind regards

Jessica

---

**From:** Ferguson V (Val)  
**Sent:** 05 December 2016 08:09  
**To:** Drew J (Jessica)  
**Subject:** RE: CONSULTATION END - DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT

I have no comments

*Val Ferguson*  
*Ports Policy Adviser*  
*Ports , Shipping, Freight and Canals Branch*  
*Area 2F North*  
*Victoria Quay*  
*Edinburgh*  
*EH6 6QQ*  
*0131 244 7878*  
[val.ferguson@transport.gov.scot](mailto:val.ferguson@transport.gov.scot)

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**From:** Drew J (Jessica)  
**Sent:** 01 December 2016 16:07  
**To:** 'info@anglingorkney.co.uk'; 'general@asfb.org.uk'; 'brian@asfb.org.uk';  
'mike.hay@ukti.gsi.gov.uk'; 'Shane.Quill@openhydro.com'; 'david@caithnesschamber.com';  
'trudy@caithnesschamber.com'; 'donnierobson@hotmail.com'; 'berrigoe@aol.com';  
'neil.fuller@developdurness.org'; 'communications@dounreay.com'; 'june.love@dounreay.com';  
'info@dounreaystakeholdergroup.org'; Simpson F (Fiona); 'info@hial.co.uk'; 'info@hient.co.uk';  
'johncox@mfn-c-ifg.com'; 'georgewhite0@gmail.com'; 'info@jrc.co.uk';

Ms Jessica Drew  
Marine Licensing Casework Officer  
Marine Scotland – Marine Planning & Policy Division  
Scottish Government  
Marine Laboratory, 375 Victoria Road  
Aberdeen  
AB11 9DB

RSPB Scotland

30<sup>th</sup> November 2016

Our ref: 522288

Dear Ms Drew

### **Dounreay Tri Floating Wind Demonstration Project, Dounreay, Caithness**

Thank you for the opportunity to comment on this proposal to trial two floating wind turbines in the Pentland Firth north of Dounreay. Whilst located in an environmentally sensitive region, the project is small scale and the associated potential impacts are low. As such, RSPB Scotland consider that the proposed project is unlikely to cause an adverse impact on seabirds in the Pentland Firth or on onshore bird populations.

We recognise the need and importance of demonstrating new and emerging renewable energy technologies and floating wind is of particular interest to the RSPB. Our own project research<sup>1</sup> has identified a potentially significant capacity for floating wind in Scottish and UK waters that are located further from shore in areas that are likely to present lower ecological risks. We are therefore keen to be kept abreast of the progress of this application.

RSPB Scotland are keen to offer support to Dounreay Tri on the basis that a condition to implement an environmental monitoring programme is appended to any consents that may be granted and that results are made public. Such a condition is considered reasonable given the demonstration nature of this project and the need to better understand not only the use of the sea and airspace around the development by seabirds and other marine wildlife but also the interactions of these species with the turbine structures. This could possibly be achieved using a video system approach. Such efforts could improve certainty in environment assessments and prove vital as a means to inform decision-making around any future proposals for larger scale projects in nearby locations or elsewhere in Scottish or UK waters. RSPB Scotland offers their support in developing such a monitoring programme.

Lastly, despite our overarching support, we do hold some concerns about aspects of the marine ornithological assessment that we have detailed in the following annex. On the basis of these concerns we wish to emphasise that any proposals for future projects or phases would require these to be addressed.

Please get in touch, if you would like further information or to discuss any issues that we have raised.

Yours sincerely



Conservation Officer, North Highland

<sup>1</sup> RSPB 2050 Energy Vision (<http://www.rspb.org.uk/our-work/conservation/conservation-projects/details.aspx?id=350939>)

## **RSPB comments: ES Chapter 11 Marine ornithology**

### **Survey data**

The description of the aerial surveys leads to ambiguity in the definition of the study area. It is stated that surveys were at 1 km spacing over project area which would give approximately full coverage for that area and at 2 km spacing over a 2 km buffer area. Presumably only 50% of the sea area in the buffer zone was included in the aerial surveys? It is not clear whether the data from the project and buffer areas was combined and, if so, how?

Two years of survey work effort would have provided a more robust environmental baseline, however we acknowledge the survey, deploy and monitor policy under which this project is proposed. The reasons for having a preference for two years survey is that based on a single year of data, it is not possible to exclude the possibility that bird use of the development area was unusually low for the time of year on individual survey days, across whole breeding season or across the whole period surveyed. Given mobility of seabirds and their prey in response to weather, sea conditions, marine productivity and other factors, the reported survey data are not sufficient to characterise day to day and week to week variability in seabird numbers within the survey area. The fact only one years' worth of data is available further emphasises the importance and requirement for ongoing site characterisation and monitoring effort to reduce the level of uncertainty in the environmental assessment and also to inform any future expansion of this technology, either nearby or elsewhere in Scottish or UK waters.

### **Collision mortality**

There are numerous inconsistencies between the collision risk modelling results presented in Table 11-15 of the Environmental Statement (ES) and the more detailed presentation in Appendix 11.1. The results shown in Appendix 11.1 appear to have been revised to take account of the most recent guidance on avoidance rates which has not been done for the main text of the ES.

Table 11.5 shows the estimated mortality rates based on generic flight height assumptions from Johnston et al 2014<sup>2</sup> as a proportion of flights through turbine window. These estimates are not specific to turbine design and do not allow for a turbine design that incorporates a larger swept area as is intended for this project. The calculated collision mortalities based on site specific flight parameters that are tabulated in the Appendix are higher than those based on generic flight height parameters presented in the main text. It would have been appropriate to have discussed these differences in the main text and to have provided justification for the presentation of the collision risk estimates based only on the generic data.

### **Importance of development area to seabird populations**

*Regional context:* RSPB Scotland regrets the omission of a review of existing information (if any) about seabird densities in this part of the North Coast Marine Region. It is unclear from the ES whether the reported seabird densities in the study area are higher or lower than elsewhere in the region?

*Comparison population:* Seabirds travel tens to hundreds of miles on foraging trips during the breeding season and considerably further outside of the breeding season so the potential number of birds that could use the development site at some point in their lifetime is very large.

---

<sup>2</sup> Johnston A, Cook, ASCP, Wright LJ, Humphreys EM, Burton NHK (2014) Modelling flight heights of marine birds to more accurately assess collision risk with offshore wind turbines Journal of Applied Ecology 2014, 51, 31–41

The impacts of the development on non-breeding seabird populations have been assessed against Biologically Defined Minimum Population Scale (BDMPS) as derived in a study commissioned by the UK statutory conservation bodies<sup>3</sup>. We welcome this approach in EIA as a first step in considering population scale impacts on individuals that disperse great distances during the non-breeding season. Such considerations should equally be applied in the context of the Birds Directive ([Directive 2009/147/EC](#)) through the undertaking of Habitats Regulations Appraisals (HRAs). At present the lack of such an assessment for the non-breeding season is, in our view, a serious omission. Whilst in this instance the proposal is small scale, the potential in-combination effects from existing and future offshore renewables and other anthropogenic marine activities within UK waters could be having an adverse effect on seabird populations that is unaccounted for in contemporary HRAs.

This issue must be a consideration of the decision-maker when appraising this and other proposals against the member state's obligations under the Birds Directive.

The approach taken to assessing the affected breeding populations of each seabird species assumes that foraging areas that are within the geographical range of more than one colony are shared and that no territorial issues exist. The impact on any individual colony might be much greater than apparent from consideration of the summed population across all the colonies within foraging range and the cumulative impact of all marine energy projects within the foraging range of these colonies has not been considered. The colony size information on which the assessments have been based is mostly over 15 years old. While an adjustment has been made for the known decline in kittiwake numbers, no adjustment has been made for other species such as fulmar that are also known to be in sharp decline.

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<sup>3</sup> Furness, R.W. 2015. Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Reports, Number 164.

4 November 2016

Jessica Drew  
Marine Renewables Casework Officer  
Marine Scotland Licensing Operations Team  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

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**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

Dear Ms Drew, I have read the above application on behalf of RYA Scotland. With two exceptions I am happy that the application be approved.

- 1) A condition of the licence should be that the Clyde Cruising Club should be included in the list of organisations to which details of the final scheme should be sent so that it can be included in the electronic updates of and the next edition of the relevant Sailing Directions.
- 2) There needs to be clarification of the request for 'A declaration, pursuant to Section 36A of the Electricity Act to extinguish public rights of navigation so far as they pass through those places within the Scottish Marine Area where the single structure forming part of the offshore Windfarm is to be.' Appendix 13.1, the NRA, states that 'mariners will be advised not to enter close to the site', with which the RYA would agree. However, the location map shows a very large site, and indeed the term site does not appear to be defined in the application. As mentioned at an earlier stage, the RYA is strongly opposed to the creation of any operational safety exclusion zones although we recognise the need for reasonable construction exclusion zones. The device as proposed presents no more of a hazard than an anchored ship would and the latter would not be marked on a chart.

Yours sincerely,



Planning and Environment Officer, RYA Scotland

**Drew J (Jessica)**

---

**From:** [redacted]@scrabster.co.uk>  
**Sent:** 06 December 2016 13:27  
**To:** MS Marine Renewables  
**Cc:** Drew J (Jessica)  
**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project

Dear Sirs

I refer to the above consultation. -

Overall Scrabster Harbour Trust supports the Dounreay Tri Floating Wind Project for the following reasons:

**Environmental** - Floating wind technology has the potential to harness part of the potential renewable resource present around our coast. Without demonstrator projects such as Dounreay Tri Wind that potential may never be realised.

**Economic** – Primarily the operations and maintenance support activities will offer job creation and local supply chain opportunities for the Caithness and North Sutherland economy, and play a part in transitioning the local economy away from reliance on the existence of the Dounreay Nuclear plant.

The construction phase will also generate local economic benefits, onshore and offshore.

Yours faithfully

[redacted]  
**Trust Manager**  
Scrabster Harbour, Harbour Office, Scrabster, Caithness, KW14 7UJ  
[redacted] f: +44 (0)1847 892 353 e: [redacted]@scrabster.co.uk w: [www.scrabster.co.uk](http://www.scrabster.co.uk)

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Your ref: 03363-001000

If telephoning ask for:  
Susan Haslam

3 November 2016

Jessica Drew  
Marine Scotland Licensing Operations Team  
Aberdeen

By email only to: [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

Dear Ms Drew

**Marine (Scotland) Act 2010**  
**The Electricity Act 1989**  
**The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000**  
**Town and Country Planning (Scotland) Acts**  
**Floating Wind Demonstration Project, 6 km off Dounreay, Caithness**

Thank you for your consultation email which SEPA received on 19 October 2016.

**Advice for the determining authority**

We ask that the **conditions** in Section 1 and 2 be attached to the appropriate consent. If any of these will not be applied, then please consider this representation as an **objection**. Please also note the advice provided below.

**1. Impacts on the marine environment – radioactive contamination**

- 1.1 We ask that a **condition** is applied requiring that prior to commencement of development (1) the finalised route of the cabling be agreed with the determining authority in consultation with SEPA, (2) confirmation of the method of laying the cable, and if buried, the depth of burial be provided, and (3) justification, in relation to disturbance of any radioactive contamination, for the method of cable laying chosen, be provided.
- 1.2 We note and welcome the proposed particle monitoring strategy (Ref PCP4) outlined in Table 6-11. We ask that the proposals outlined are covered by **condition** so that they can be agreed prior to the commencement of development. Similarly a **condition** should also be applied to cover similar monitoring at decommissioning. The applicant should note the additional advice provided in section 4 below.
- 1.3 We direct you to our [standard advice](#) for advice on other aspects of impacts on the marine environment.

**2. Impacts onshore**

- 2.1 In line with the proposals outlined in the ES we ask that a **condition** is applied requiring the appointment of an Ecological Clerk of Works for the project. Our local team in Thurso would welcome being informed who this is when the appointment has been made. We also ask that a **condition** is applied requiring the onshore works to be carried out in line with the mitigation measures outlined in Table 21-7, Table 22-145 and Table 24-15 of the ES. For the avoidance of any doubt we would not wish to be consulted on any submissions relating to the mitigation measures proposed.
- 2.2 We note that the finalised location of the onshore infrastructure is yet to be agreed but that indicative proposals are outlined on Figure 4-9. As long as the infrastructure is located within the corridors shown on the figure then we are content with the proposals as development within this area will not have a significant environmental effect on most of the aspect of the environment in which we have a specific interest (such as peat, watercourses and private water supplies). Cable corridor 1 could have a direct effect on MG10 habitat but we are content that this impact can be successfully addressed via the mitigation secured above in section 2.1.
- 3. Decommissioning**
- 3.1 In relation to decommissioning of the on-shore facilities we note the proposal to leave in situ cables and potentially building foundations. As outlined during pre-application discussion any proposal to discard materials on land that are likely to be classed as waste would be unacceptable under current waste management licensing and under waste management licensing at time of decommissioning if a similar regulatory framework exists at that time. However section 4.52 of the ES makes it clear that decommissioning best practice and legislation will be applied at that time, and as a result we are content with the proposals.
- 3.2 We note that a similar approach will be taken for marine works, but we defer to you on this issue as we do not regulate waste below mean low water.

### **Advice for the applicant**

#### **4. Radioactivity contamination monitoring**

- 4.1 We are of the view that the current beach monitoring arrangements undertaken by Dounreay Site Restoration Limited (DSRL) would be highly beneficial in validating the effectiveness of offshore monitoring during these works, provided the monitoring is undertaken during instillation works and for a period thereafter. We therefore recommend that the applicant discusses the possibility of making use of this data with DSRL and any agreement can form the basis of the condition requirements requested in section 1.
- 4.2 Should the applicant be unable to reach agreement with DSRL then the submission required in section 1 should outline a full monitoring programme during cable laying, and for a reasonable period following intrusive works.
- 4.3 The applicant should note that disposal of any particles recovered during monitoring may require authorisation from SEPA. We therefore recommend the applicant discusses this with us in further detail as part of the monitoring strategy agreement.

#### **5. Regulatory requirements**

- 5.1 Proposed engineering works within the freshwater environment will require authorisation

under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). Management of surplus peat or soils may require an exemption under The Waste Management Licensing (Scotland) Regulations 2011. Proposed crushing or screening will require a permit under The Pollution Prevention and Control (Scotland) Regulations 2012. Consider if other environmental licences may be required for any installations or processes.

- 5.2 Details of regulatory requirements and good practice advice for the applicant can be found on the [Regulations section](#) of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the regulatory team in your local SEPA office at: Strathbeg House, Clarence Street, Thurso, Caithness, KW14 7JS - Tel: 01847 894422

Should you wish to discuss this letter please do not hesitate to contact me on 01349 860359 or [planning.dingwall@sepa.org.uk](mailto:planning.dingwall@sepa.org.uk)

Yours sincerely

Susan Haslam  
Senior Planning Officer  
Planning Service

ECopy to: [Jessica.Drew@gov.uk](mailto:Jessica.Drew@gov.uk); [Marcus.Thor@hexicon.eu](mailto:Marcus.Thor@hexicon.eu)

*Disclaimer*

*This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our [website planning pages](#).*



## Scottish Natural Heritage Dualchas Nàdair na h-Alba

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Jessica Drew  
Marine Scotland  
Marine Laboratory  
P. O. Box 101  
375 Victoria Road  
Aberdeen  
AB11 9DB

By email only:  
[MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

Your Ref: Dounreay Tri  
Floating Wind  
Demonstration Project

Our Ref:  
CNS/REN/OSWF/DEMONS  
TRATOR SITE/HEXICON –  
FLOATING WIND –  
DOUNREAY TRI PROJECT

Date: 16<sup>th</sup> December 2016

Dear Ms Drew,

### **SNH ADVICE ON THE PROPOSAL TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT**

#### **ELECTRICITY ACT 1989**

*The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended)*

*The Electricity (Applications For Consent) Regulations 1990 (as amended)*

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

*The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)*

#### **TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997**

Thank you for your consultation requesting our advice on the proposed Dounreay Tri floating wind demonstration project.

#### **Advice Summary**

From our review of the application, the Environmental Statement (ES), Information to inform a Habitat Regulations Appraisal (HRA) report, and other supporting information, we conclude the proposal is unlikely to have any significant adverse impacts on international or national natural heritage interests.

The project is relatively small scale with the majority of impacts being localised and (during construction) temporary in nature. Although there may be some cumulative impacts with other developments, it is unlikely that these will have a significant adverse impact. We do have some concerns regarding the impact assessment, which are detailed in the following appendices.

We advise that advice on landscape and visual impacts in respect of the exact location and development of the onshore infrastructure to support the offshore development, is deferred to The Highland Council.



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## **Environmental management and monitoring**

We advise that, if consented, a Project Environmental Monitoring Plan (PEMP) is drafted focusing particularly on:

- the behaviour of seabirds around the platform and turbines,
- the density and distribution of seabirds within the site-specific survey area, and
- entanglement risk for marine mammals.

We welcome further discussion on monitoring requirements for the project in order to validate some of the ES predictions, consider the environmental impacts of this demonstrator project, and provide valuable information for any future proposals using similar technology.

**Appendices A - B** contain detailed advice on our appraisal of the proposal in relation to HRA including for Special Areas of Conservation (SACs) (Appendix A) and SPAs (Appendix B).

**Appendix C** contains further advice and comments on the content of the Environmental Statement (ES).

**Appendix D** provides our detailed advice on conditions.

We hope this advice is helpful. If further information or advice is required please contact Chris Eastham in the first instance ([chris.eastham@snh.gov.uk](mailto:chris.eastham@snh.gov.uk), mobile: 07770 225154).

Yours sincerely,

**Chris Eastham**  
Marine Renewable Energy Casework Adviser

cc The Highland Council (Emma Forbes)

## APPENDIX A

### HABITATS REGULATIONS APPRAISAL – SPECIAL AREAS OF CONSERVATION

1. Following submission of the HRA report and the ES, we conclude that the proposal is unlikely to have a significant effect on the following qualifying interests and their SACs:

**Faray and Holm of Faray SAC & North Rona SAC** - grey seals;

**Sanday SAC** - harbour seals;

**River Thurso SAC, River Borgie SAC & River Naver SAC** - Atlantic salmon; and

**River Borgie SAC & River Naver SAC** – Atlantic salmon & freshwater pearl mussel.

#### **Appraisal of impacts of Dounreay Tri floating wind demonstrator project in relation to the Faray and Holm of Faray SAC, North Rona SAC, and Sanday SAC**

2. The proposed development is located approximately 80 km from Faray and Holm of Faray SAC, 121 km from North Rona SAC, and 91 km from Sanday SAC.

<p><b>Step 1:</b> Is the proposal directly connected with or necessary for the conservation management of the SACs?</p>
---

The project is not directly connected with or necessary for the conservation management of Faray and Holm of Faray SAC, North Rona SAC, and Sanday SAC.

<p><b>Step 2:</b> Is the proposal likely to have a significant effect on the qualifying features of the SACs either alone or in combination with other plans or projects?</p>
---

The conservation objectives for Faray and Holm of Faray SAC, North Rona SAC and Sanday SAC can be found on [SNH SiteLink](#).

3. Using the information provided in the ES and 'Information to inform the Habitat Regulations Appraisal' report, our knowledge of seal ecology and the SACs, we offer the following advice:

**We advise that, in our view, the proposal will have no likely significant effect on the grey seal qualifying interests for Faray and Holm of Faray SAC and North Rona SAC, and the harbour seal qualifying interest for Sanday SAC.**

4. The appraisal we carried out considered the following factors:
  - The lack of seal observations recorded during digital aerial surveys;
  - Tracking studies show that the project site is of low importance for seals;
  - The low risk of entanglement during the operational phase;
  - The proposal is far enough away from any SAC for there to be no direct impacts, or disturbance, to seals while they are within the SACs;
  - The small development footprint relative to the large extent of alternative foraging habitat / prey available to seals, should localised displacement occur due to disturbance as a result of works during construction;
  - No noisy installation works, such as piling;
  - Most work associated with the proposal is of short duration and localised.

**Appraisal of impacts of Dounreay Tri floating wind demonstrator project in relation to River Thurso SAC, River Borgie SAC and River Naver SAC**

5. The proposed development is located approximately 17 km west of the River Thurso SAC, approximately 26 km east of the River Naver SAC and approximately 25 km east of the River Borgie SAC.

**Step 1:** Is the proposal directly connected with or necessary for the conservation management of the SACs?

The project is not directly connected with or necessary for the conservation management of the SACs.

**Step 2:** Is the proposal likely to have a significant effect on the qualifying features of the SACs either alone or in combination with other plans or projects?

The conservation objectives of the sites can be found on [SNH SiteLink](#).

6. Using the information provided in the ES, our knowledge of Atlantic salmon and freshwater pearl mussel ecology and the SACs we offer the following advice:

**We advise that, in our view, the proposal will have no likely significant effect on the Atlantic salmon qualifying interest for the River Thurso, River Naver and River Borgie SACs. We also advise no likely significant effect on the freshwater pearl mussel qualifying interest of the River Naver SAC and River Borgie SAC. Our appraisal of impacts to Atlantic salmon is in Appendix C, Section civ: Fish (including diadromous fish) and shellfish.**

## APPENDIX B

### HABITATS REGULATIONS APPRAISAL – SPECIAL PROTECTION AREAS (SPA)

#### Appraisal of impacts of the Dounreay Tri floating wind demonstration project in relation to relevant SPAs

7. As part of the habitats regulations appraisal screening process, a large number of qualifying interests at a number of sites have been identified for further consideration. In our assessment, we have considered the ‘Information to inform the Habitat Regulations Appraisal’ report and ES, and we have concluded the following:

**Table 1. Seabird qualifying interests and their SPAs for which no likely significant effect is concluded.**

<b>Leach’s petrel (breeding)</b> Sule Skerry and Sule Stack SPA North Rona and Sula Sgeir SPA	<b>Storm petrel (breeding)</b> Sule Skerry and Sule Stack SPA
<b>Manx shearwater (breeding)</b> Rum SPA St Kilda SPA	<b>Black-throated diver (breeding &amp; non-breeding)</b> Caithness and Sutherland Peatlands SPA
<b>Red-throated diver (breeding)</b> Caithness and Sutherland Peatlands SPA	<b>Common scoter (breeding)</b> Caithness and Sutherland Peatlands SPA
<b>Wigeon (breeding)</b> Caithness and Sutherland Peatlands SPA	<b>Greenland white-fronted goose (migratory non-breeding)</b> Caithness Lochs SPA
<b>Greylag goose (migratory non-breeding)</b> Caithness Lochs SPA	<b>Whooper swan (migratory non-breeding)</b> Caithness Lochs SPA
<b>Peregrine falcon (breeding)</b> North Caithness Cliffs SPA	

8. **No LSE for the qualifying interests / sites as identified above.** This is due to low numbers recorded or low proportion recorded flying at collision risk height or collision risk mortality is not significant; displacement is not a significant impact or the project area is not considered important for these species.

**Table 2. Seabird qualifying interests and their SPAs for which likely significant effect is concluded.**

<b>LSE for the following qualifying interests / sites:</b>  <b>Common guillemot (breeding)</b> North Caithness Cliffs SPA Hoy SPA East Caithness Cliffs SPA	<b>Reason:</b> Project area within foraging range, species recorded during site surveys and sensitive to potential impacts, notably collision risk or displacement.
--	---

Sule Skerry and Sule Stack SPA  
Cape Wrath SPA  
Marwick Head SPA  
Rousay SPA  
Copinsay SPA  
Handa SPA  
West Westray SPA  
Calf of Eday SPA  
North Rona and Sula Sgeir SPA  
Troup, Pennan and Lion`s Heads SPA

**Razorbill (breeding)**

North Caithness Cliffs SPA  
East Caithness Cliffs SPA  
West Westray SPA  
Cape Wrath SPA  
Handa SPA

**Puffin (breeding)**

North Caithness Cliffs SPA  
Hoy SPA  
East Caithness Cliffs SPA  
Sule Skerry and Sule Stack SPA  
Cape Wrath SPA  
West Westray SPA  
North Rona and Sula Sgeir SPA

**Northern fulmar (breeding)**

North Caithness Cliffs SPA  
Hoy SPA  
East Caithness Cliffs SPA  
Cape Wrath SPA  
Rousay SPA  
Copinsay SPA  
Handa SPA  
West Westray SPA  
Calf of Eday SPA  
North Rona and Sula Sgeir SPA  
Troup, Pennan and Lion`s Heads SPA  
Fair Isle SPA  
The Shiant Isles SPA  
Buchan Ness to Collieston Coast SPA  
Foula SPA  
Sumburgh Head SPA  
Fowlsheugh SPA  
Flannan Isles SPA  
Noss SPA  
Fetlar SPA  
Firth of Forth SPA  
St Kilda SPA  
Forth Islands SPA  
Hermaness, Saxa Vord and Valla Field SPA  
Mingulay and Berneray SPA  
Flamborough Head and Bempton Cliffs SPA

**Northern gannet (breeding)**

Sule Skerry and Sule Stack SPA  
North Rona and Sula Sgeir SPA  
Fair Isle SPA  
Noss SPA  
St Kilda SPA  
Forth Islands SPA  
Hermaness, Saxa Vord and Valla Field SPA

<p><b>Great skua (breeding)</b> Hoy SPA Handa SPA</p> <p><b>Kittiwake (breeding)</b> North Caithness Cliffs SPA Hoy SPA East Caithness Cliffs SPA Marwick Head SPA Copinsay SPA Handa SPA West Westray SPA Calf of Eday SPA</p> <p><b>Great black-backed gull (breeding)</b> Hoy SPA East Caithness Cliffs SPA</p> <p><b>Herring gull (breeding)</b> East Caithness Cliffs SPA</p>	
--	--

### Appraisal in relation to these SPAs and bird species

**Step 2:** Is the proposal likely to have a significant effect on the qualifying features of the SPAs either alone or in combination with other plans or projects?

9. The Dounreay Tri floating wind demonstration project is not directly connected with or necessary for the conservation management of the above SPAs.

The conservation objectives of the sites can be found on [SNH SiteLink](#) .

In assessing whether the proposal is likely to have a significant effect (LSE) on the qualifying interests, we have considered the following:

- whether the project area overlaps with the species foraging range during the breeding season or wintering period;
- whether the project lies within an identified migratory path;
- whether a species was observed in the project area during the site characterisation and other relevant surveys;
- whether a species is sensitive to any of the potential impacts identified;
- whether or not there is potential for any of the conservation objectives to be undermined.

Using the information provided in the ES and the 'Information to inform the Habitat Regulations Appraisal' report, our knowledge of seabird ecology and SPAs, we provide the following appraisal.

**We advise that, in our view, the proposal is likely to have significant effect on the above qualifying interests (i.e. those where LSE is confirmed). As a consequence Marine Scotland, as competent authority, is required to carry out an appropriate assessment in view of the conservation objectives for the qualifying features. We provide an appraisal of the proposal below.**

**Step 3:** Can it be ascertained that the proposal will not adversely affect the integrity of the SPAs either alone or in combination with other plans or projects?

**Appraisal of the potential impacts from this development for 9 species:**

**I. Common guillemot (breeding)**

- North Caithness Cliffs SPA
- Hoy SPA
- East Caithness Cliffs SPA
- Sule Skerry and Sule Stack SPA
- Cape Wrath SPA
- Marwick Head SPA
- Rousay SPA
- Copinsay SPA
- Handa SPA
- West Westray SPA
- Calf of Eday SPA
- North Rona and Sula Sgeir SPA
- Troup, Pennan and Lion`s Heads SPA

12. During construction, any potential disturbance caused by installation operations or vessels movements will be localised and temporary.
13. The majority of common guillemots fly below the rotor height. Therefore, it is considered to be at very low risk of any collisions.
14. Displacement during operation of the wind farm is the key impact for common guillemot. With a 60% displacement level and 100% mortality, it is predicted that 26 common guillemot will be lost from within the development footprint and a 1km radius. All 26 are apportioned to the North Caithness Cliffs SPA. With a population count of 47,000 individuals (Seabird 2000), 0.05% of the population might be affected. Considering the small numbers potentially affected, and the current 'favourable maintained' condition of common guillemot at North Caithness Cliffs SPA, we conclude that the conservation objectives of all SPAs with common guillemot will be maintained and there is no adverse impact on site integrity for individual SPAs.

**Cumulative / in combination impacts**

15. Although there are potential cumulative / in-combination impacts with other marine developments, we agree with the 'Information to inform the Habitat Regulations Appraisal' report (referred to now on as the HRA report), that there will be no adverse effect on site integrity.

**Conclusion**

16. We advise that, in our view, the proposal will have no adverse effect on site integrity, either alone or in-combination, for the common guillemot qualifying interest for the SPAs listed above.

## **II. Razorbill (breeding)**

- North Caithness Cliffs SPA
- East Caithness Cliffs SPA
- West Westray SPA
- Cape Wrath SPA
- Handa SPA

17. During construction, any potential disturbance caused by installation operations or vessels movements will be localised and temporary.
18. The majority of razorbills fly below the rotor height. Therefore, it is considered at very low risk of any collisions.
19. Displacement during operation of the wind farm is the key impact for razorbill. With a 60% displacement level and 100% mortality, it is predicted that only 2 razorbills will be lost from within the development footprint and a 1km radius. Considering the small numbers potentially affected, we conclude that the conservation objectives of all SPAs with razorbill will be maintained and there is no adverse impact on site integrity for individual SPAs.

### **Cumulative / in combination impacts**

20. Although there are potential cumulative / in-combination impacts with other marine developments, we agree with the 'Information to inform the Habitat Regulations Appraisal' report, that there will be no adverse effect on site integrity.

### **Conclusion**

21. We advise that, in our view, the proposal will have no adverse effect on site integrity, either alone or in-combination, for the razorbill qualifying interest for the SPAs listed above.

## **III. Puffin (breeding)**

- North Caithness Cliffs SPA
- Hoy SPA
- East Caithness Cliffs SPA
- Sule Skerry and Sule Stack SPA
- Cape Wrath SPA
- West Westray SPA
- North Rona and Sula Sgeir SPA

22. During construction, any potential disturbance caused by installation operations or vessels movements will be localised and temporary.
23. The majority of puffins fly below the rotor height. Therefore, it is considered at very low risk of any collisions.
24. Displacement during operation of the wind farm is the key impact for puffin. The assessment is based on the peak density of 60.14 birds/km<sup>2</sup> in June. With a 60% displacement level and 100% mortality, it is predicted that 113 will be lost from within the development footprint and a 1km radius. From the 113, 107 are apportioned to the North Caithness Cliffs SPA and 6 apportioned to Sule Skerry and Sule Stack SPA. In the HRA report, it is estimated that from these 107 the number of breeding adults is 64. With a population count of 7,045 breeding pairs (Seabird 2000) for North Caithness

Cliffs SPA, this means that 0.45% of the population might be affected. Considering the small numbers that might be affected (even when using the peak June count), the assumed 100% mortality of displaced birds, and the current favourable maintained condition of puffin at North Caithness Cliffs SPA and Sule Skerry and Sule Stack SPA, we conclude that the conservation objectives of all SPAs with puffin will be maintained and there is no adverse impact on site integrity for individual SPAs.

#### **Cumulative / in combination impacts**

25. Although there are potential cumulative / in-combination impacts with other marine developments, even with the peak June count used in the assessment, the HRA report indicates that any impacts will be below that at which a population level effect will occur for the North Caithness Cliffs SPA.

#### **Conclusion**

26. We advise that, in our view, the proposal will have no adverse effect on site integrity, either alone or in-combination, for the puffin qualifying interest for the SPAs listed above.

#### **IV. Northern fulmar (breeding)**

- North Caithness Cliffs SPA
- Hoy SPA
- East Caithness Cliffs SPA
- Cape Wrath SPA
- Rousay SPA
- Copinsay SPA
- Handa SPA
- West Westray SPA
- Calf of Eday SPA
- North Rona and Sula Sgeir SPA
- Troup, Pennan and Lion`s Heads SPA
- Fair Isle SPA
- The Shiant Isles SPA
- Buchan Ness to Collieston Coast SPA
- Foula SPA
- Sumburgh Head SPA
- Fowlsheugh SPA
- Flannan Isles SPA
- Noss SPA
- Fetlar SPA
- Firth of Forth SPA
- St Kilda SPA
- Forth Islands SPA
- Hermaness, Saxa Vord and Valla Field SPA
- Mingulay and Berneray SPA
- Flamborough Head and Bempton Cliffs SPA

27. During construction, any potential disturbance caused by installation operations or vessels movements will be localised and temporary.

28. The majority of northern fulmar fly below the rotor height. Therefore, it is considered at low risk of any collisions.

29. Considering the very extensive foraging range of fulmars, it is unlikely that the loss of such a small area will have a population level effect. We conclude that the conservation objectives of all SPAs with fulmar will be maintained and there is no adverse impact on site integrity for individual SPAs.

#### **Cumulative / in combination impacts**

30. Although there are potential cumulative / in-combination impacts with other marine developments, due to the extensive foraging range, any impacts are unlikely to have a population level effect. We agree with the HRA report, that there will be no adverse effect on site integrity.

#### **Conclusion**

31. We advise that, in our view, the proposal will have no adverse effect on site integrity, either alone or in-combination, for the northern fulmar qualifying interest for the SPAs listed above.

#### **V. Northern gannet (breeding)**

- Sule Skerry and Sule Stack SPA
- North Rona and Sula Sgeir SPA
- Fair Isle SPA
- Noss SPA
- St Kilda SPA
- Forth Islands SPA
- Hermaness, Saxa Vord and Valla Field SPA

32. Key impacts considered for this qualifying interest are collision risk and displacement. Collision risk modelling predicts no collisions during the breeding or non-breeding seasons.

33. Northern gannet foraging ranges are extensive and any displacement impacts for this species are considered to be insignificant.

#### **Cumulative / in combination impacts**

34. We advise that for northern gannet qualifying interests of relevant SPAs that there will be no adverse effects on integrity as a result of the proposal's effects in combination with other developments.

#### **Conclusion**

35. We advise that, in our view, the proposal will have no adverse effects on site integrity on the northern gannet qualifying interests for relevant SPAs either alone or cumulatively / in combination with other developments.

#### **VI. Great skua (breeding)**

- Hoy SPA
- Handa SPA

36. Key impacts considered for this qualifying interest are collision risk and displacement. Collision risk modelling predicts no collisions during the breeding or non-breeding seasons.

37. Great skua foraging ranges are extensive and any displacement impacts for this species are considered to be insignificant.

### **Cumulative / in combination impacts**

38. We advise that for great skua qualifying interests of relevant SPAs that there will be no adverse effects on integrity as a result of the proposal's effects in combination with other developments.

### **Conclusion**

39. We advise that, in our view, the proposal will have no adverse effects on site integrity on the great skua qualifying interests for relevant SPAs either alone or cumulatively / in combination with other developments.

## **VII. Kittiwake (breeding)**

- North Caithness Cliffs SPA
- Hoy SPA
- East Caithness Cliffs SPA
- Marwick Head SPA
- Copinsay SPA
- Handa SPA
- West Westray SPA
- Calf of Eday SPA

40. Collision risk modelling predicts that 9 kittiwakes will collide with the proposed development during the breeding season. If all 9 mortalities are apportioned to the closest SPA – North Caithness SPA – this is 0.04% of a population of 10,150 breeding pairs (Seabird 2000). Although the condition of kittiwakes at North Caithness Cliffs SPA is unfavourable, it is considered unlikely that the removal of 9 individuals will have a population level effect. This is a worst case scenario, and it is likely that kittiwakes foraging in the proposed development area are not just from North Caithness Cliffs SPA. During the non-breeding season, 6 collisions are predicted. Again, it is considered unlikely that the removal of 6 individuals will have a population level effect even in a worst case scenario that all of these birds were from the North Caithness Cliffs SPA.

41. For displacement of 40% of kittiwakes, then it is estimated that between zero and ten birds could be at risk should displacement cause mortality. Given the extensive foraging range of kittiwakes, and the loss of such a small area, it is considered unlikely that the mortality level will be high and birds will be able to forage in other suitable areas.

### **Cumulative / in combination impacts**

42. Although there are potential cumulative / in-combination impacts with other marine developments, namely the Beatrice and Moray Firth offshore wind farms, the assessment shows that any impacts are unlikely to have a population level effect. We agree with the HRA report, that there will be no adverse effect on site integrity.

### **Conclusion**

43. We advise that, in our view, the proposal will have no adverse effects on site integrity on the kittiwake qualifying interests for relevant SPAs either alone or cumulatively / in combination with other developments.

**VIII. Great black-backed gull (breeding)**

- Hoy SPA
- East Caithness Cliffs SPA

44. The key impact for this qualifying interest is collision with the rotors. Collision risk modelling predicts that no great black-backed gulls will collide with the turbines during the breeding season and that one bird will collide during the non-breeding season. Although this species is considered at risk of collision, the low numbers recorded during the surveys result in very low predicted collisions.

**Cumulative / in combination impacts**

45. We advise that there will be no adverse effects on integrity as a result of the proposal's effects in combination with other developments.

**Conclusion**

46. We advise that, in our view, the proposal will have no adverse effect on site integrity on the great black-backed qualifying interests for relevant SPAs either alone or cumulatively / in combination with other developments.

**IX. Herring gull (breeding)**

- East Caithness Cliffs SPA

47. The site-specific surveys recorded only 3 herring gulls during the non-breeding season. Collision risk modelling predicts no collisions during the non-breeding season.

**Cumulative / in combination impacts**

48. We advise that there will be no adverse effects on integrity as a result of the proposal's effects in combination with other developments.

**Conclusion**

49. We advise that, in our view, the proposal will have no adverse effect on site integrity on the herring gull qualifying interest for the East Caithness Cliffs SPA either alone or cumulatively / in combination with other developments.

**Table 3. Summary of seabird qualifying interests and their SPAs for which no adverse effect on site integrity is concluded.**

<b>Common guillemot (breeding)</b> North Caithness Cliffs SPA Hoy SPA East Caithness Cliffs SPA Sule Skerry and Sule Stack SPA Cape Wrath SPA Marwick Head SPA Rousay SPA Copinsay SPA Handa SPA West Westray SPA Calf of Eday SPA	<b>Razorbill (breeding)</b> North Caithness Cliffs SPA East Caithness Cliffs SPA West Westray SPA Cape Wrath SPA Handa SPA
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North Rona and Sula Sgeir SPA Troup, Pennan and Lion`sHeads SPA	
<b>Puffin (breeding)</b> North Caithness Cliffs SPA Hoy SPA East Caithness Cliffs SPA Sule Skerry and Sule Stack SPA Cape Wrath SPA West Westray SPA North Rona and Sula Sgeir SPA	<b>Northern fulmar (breeding)</b> North Caithness Cliffs SPA Hoy SPA East Caithness Cliffs SPA Cape Wrath SPA Rousay SPA Copinsay SPA Handa SPA West Westray SPA Calf of Eday SPA North Rona and Sula Sgeir SPA Troup, Pennan and Lion`s Heads SPA Fair Isle SPA The Shiant Isles SPA Buchan Ness to Collieston Coast SPA Foula SPA Sumburgh Head SPA Fowlsheugh SPA Flannan Isles SPA Noss SPA Fetlar SPA Firth of Forth SPA St Kilda SPA Forth Islands SPA Hermaness, Saxa Vord and Valla Field SPA Mingulay and Berneray SPA Flamborough Head and Bempton Cliffs SPA
<b>Northern gannet (breeding)</b> Sule Skerry and Sule Stack SPA North Rona and Sula Sgeir SPA Fair Isle SPA Noss SPA St Kilda SPA Forth Islands SPA Hermaness, Saxa Vord and Valla Field SPA	<b>Great skua (breeding)</b> Hoy SPA Handa SPA
<b>Kittiwake (breeding)</b> North Caithness Cliffs SPA Hoy SPA East Caithness Cliffs SPA Marwick Head SPA Copinsay SPA Handa SPA West Westray SPA Calf of Eday SPA	<b>Great black-backed gull (breeding)</b> Hoy SPA East Caithness Cliffs SPA
<b>Herring gull (breeding)</b> East Caithness Cliffs SPA	

### **Proposed Special Protection Areas**

50. During summer and autumn 2016, following many years of survey and analysis, and following formal scientific advice from SNH and JNCC on a proposed suite of marine SPAs to Scottish Ministers, consultation started on a proposed SPA suite comprising of 15 marine protected areas used by 31 seabird species. These marine protected areas are identified as being important foraging areas for many of our breeding seabirds and

migratory birds that return each year, in some cases travelling thousands of miles to over-winter.

51. Although these sites have policy protection as proposed SPAs (pSPAs), there is not yet a final defined set of conservation objectives for these sites. However, where possible we provide our advice below in respect of whether any species / sites need to be considered further or whether at this stage likely significant effect can be ruled out.

**Table 4. Seabird qualifying interests within pSPAs for which no likely significant effect is concluded.**

<b>Arctic skua (breeding)</b> Pentland Firth pSPA	<b>Slavonian grebe (non-breeding)</b> Scapa Flow pSPA North Orkney pSPA
<b>Manx shearwater (breeding)</b> Outer Firth of Forth and St Andrews Bay Complex pSPA	<b>Shag (non-breeding)</b> Scapa Flow pSPA North Orkney pSPA
<b>Black-throated diver (breeding &amp; non-breeding)</b> Scapa Flow pSPA	<b>Great northern diver (non-breeding)</b> Scapa Flow pSPA North Orkney pSPA
<b>Red-breasted merganser (non-breeding)</b> Scapa Flow pSPA North Orkney pSPA	<b>Velvet scoter (non-breeding)</b> North Orkney pSPA
<b>Goldeneye (non-breeding)</b> Scapa Flow pSPA	<b>Common eider (non-breeding)</b> Scapa Flow pSPA North Orkney pSPA
<b>Long-tailed duck (non-breeding)</b> Scapa Flow pSPA North Orkney pSPA	<b>Common guillemot (breeding)</b> Pentland Firth pSPA
<b>Northern gannet (breeding)</b> Outer Firth of Forth and St Andrews Bay Complex pSPA	

52. No LSE for the qualifying interests / sites as identified above. This is due to:

- the rationale for site selection, and / or
- low numbers recorded during site specific surveys, or
- low proportion recorded flying at collision risk height, or
- collision risk mortality is not significant, and
- displacement is not a significant impact.

## APPENDIX C

### ADVICE ON NATURAL HERITAGE INTERESTS CONSIDERED IN THE ENVIRONMENTAL STATEMENT (ES)

We provide advice on the following issues:

- ci. Designated Sites
  - cii. Coastal processes
  - ciii. Protected species
  - civ. Fish (including diadromous fish) and shellfish
  - cv. Benthic ecology
  - cvi. Ornithology
  - cvii. Seascape, landscape and visual impact assessment
  - cviii. Terrestrial ecology
- 

#### ci. Designated sites

##### Natura sites

1. Please see [Appendix A](#) and [Appendix B](#) respectively for our HRA advice for SACs and SPAs.

#### cii. Coastal processes

##### Summary

2. Overall we agree with the conclusion of no significant impacts and therefore no requirement for specific mitigation.
3. During gate check, we provided a number of recommendations:
  - to calculate seabed disturbance not just in area but also in volume; and
  - to calculate suspended sediment created during dredging for the clump weight plinth

We consider it unlikely that such calculation of volumes will alter the judgement for all effects that magnitude is Negligible – and it certainly would not raise the magnitude to High, which is what would trigger identification of a significant effect requiring specific mitigation. We also recognise that the greatest potential for suspended sediment will come from jetting for export cable burial, and will have a magnitude of Negligible (as assessed) or perhaps Low. Therefore, suspended sediment from the dredging will have no significant effect requiring specific mitigation.

4. Our advice on explicitly stating receptor vulnerability is generally taken up, with one exception: the offshore component of “Changes... due to altered hydrodynamics”. This is relevant to the queries we raised regarding adequacy of the bathymetry data used. Revisions to the text have firmed up our opinion that this data was adequate for the assessment. From the baseline description, and from other datasets, etc (e.g. establishment of MPAs), we have no reason to believe seabed processes and landforms in the project area are regionally important, or are not robust to potentially altered hydrodynamics. Therefore, they are likely to be of Low vulnerability, meaning that changes due to altered hydrodynamics would have no significant effect requiring specific mitigation.

ciii. **Protected species**

**European Protected Species (EPS) - cetaceans**

**Summary**

5. We broadly agree with the general conclusions that the impacts on cetaceans are likely to be minor / negligible based on the sensitivities of the features and the (estimated) duration / magnitude of the activities.

**Detailed comments**

European Protected Species (EPS)

6. Given the short duration of the construction period, and relatively low importance of the area for cetaceans, **we advise an EPS licence will not be required.**
7. The development will not involve any piling so potential impacts are limited to entanglement and disturbance due to vessel movements as well as potential disturbance during cable laying.
8. Entanglement is potentially the key impact for this development with regard to marine mammals. Risks are greater for medium-sized cetaceans, e.g. minke whale, rather than smaller cetaceans, such as dolphins and porpoises. We advise that a detailed entanglement monitoring and reporting schedule is provided as part of the PEMP in order to monitor entanglement for this demonstrator proposal.
9. We support the suggestion of limiting vessel speeds and the designation of a navigational route to minimise the potential for collision. Details of these measures should be provided in the vessel management plan.

civ. **Fish (including diadromous fish) and shellfish**

**Summary**

10. We broadly agree with the general conclusions that the impacts on diadromous fish, marine fish including marine fish Priority Marine Features (PMFs) and shellfish are likely to be minor / negligible based on the sensitivities of the features and the (estimated) duration / magnitude of the activities.

**Detailed comments**

11. We broadly agree with the conclusions of the ES. There is potential for interaction with some fish and shellfish PMFs. However, any impacts from the proposal are unlikely to be significant. We note that there is no longer reference to pin-piling, just anchors, mooring clumps and chain/steel lines. Installation noise is, therefore, unlikely to be an issue for fish. There may be some dredging, resulting in habitat disturbance, but this is unlikely to have any significant impacts. The mitigation detailed includes checking and removal of any lost fishing gear that may result in subsequent ghost fishing or entanglement - we welcome this measure. The mitigation Table 9-39 should also include the cable burial measures as described in the text (burial to 2m where conditions allow).

12. The landfall point for the export cable is proposed to be immediately to the west of the Dounreay restoration site. There are no SACs for diadromous fish or freshwater pearl in this location (see Appendix A for more information on SACs), however, the north coast of Scotland is understood to be potentially an important route for migrating Atlantic salmon. We welcome that the export cable will be buried to a target depth of 2m (page 31, para 4.35), with rock armour used as protection where it is not possible to bury the cable. Whilst cable burial would not be expected to reduce the extent of the emission field for EMF, it would increase the distance between the cable and the water column.
13. The ES reflects that the sediments are predominantly sandy gravel with varying proportions of fine sand, gravel, pebbles and cobbles patchily distributed; there is only a very small proportion of mud. There is a lack of published literature relating to critical levels for diadromous fish of exposure to suspended sediments in the marine environment. However, it is apparent that many species of diadromous fish (including Atlantic salmon) appear to be capable of migrating through and surviving high suspended solid concentrations in estuarine environments (although they are likely to try to avoid areas of high suspended solids). Diadromous fish species are present, or have been recorded, in many estuaries regarded as being at the higher end of the turbidity scale and some of these sites have been designated as SACs for migratory fish species. It is considered unlikely that increased turbidity in the high energy environment of the project area would be of a level to have significant adverse impacts on diadromous fish.
14. It is stated that there is potential for cumulative impacts to arise from the Dounreay Tri floating wind project and the Orkney-Caithness interconnector cable. The ES points out (page 175, para 9.151) that there is limited information available and it is therefore difficult to fully assess the extent of potential impacts. However, we agree that construction impacts will be temporary and unlikely to overlap.

## **cv. Benthic ecology**

### **Summary**

15. Overall, we agree with the conclusion that impacts on benthic features will be minor / negligible, based on the sensitivities of the features and the (estimated) duration / magnitude of the activities. We advise that a benthic survey of the cable route and mooring system location is undertaken prior to installation.

### **Detailed comments**

16. The key impact will be the loss of, or damage to, the seabed habitat and/or species from the drag anchors, movement from the anchor chains, burial of the export cable, and the dredging. Results from the survey should be submitted to MS and SNH. Results from this survey could be used for micro-siting of the cable route to avoid any impacts to PMFs.
17. The cable route has not been dealt with very well in the ES, and there could conceivably be damage to PMFs that we are not aware of. However, due to the scale of this development we conclude it is unlikely that there will be any significant adverse impacts to any relevant protected species or habitats. It is an open coastline subject to dynamic conditions, and it is likely that species and habitats are typical of those found in these environments, and are able to cope with some level of disturbance.

## **cvi. Ornithology**

### **Summary**

18. Overall, we agree with the conclusion that impacts on bird features will be minor / negligible, based on the site-specific survey results, sensitivities of the features and the (estimated) duration / magnitude of the activities. We advise that monitoring should be undertaken to provide data on the behaviour of bird species to the platform (e.g. whether some species are attracted to the platform), and aerial surveys are continued during the breeding season, and covering pre-construction, construction, and post construction, to monitor seabird densities.

### **Detailed comments**

19. Our detailed HRA advice for relevant SPAs / pSPAs can be found in Appendix B.
20. The key potential impacts of the proposal are collision risk and displacement during the operation and maintenance phase of the project.

### ***Displacement***

21. Displacement may occur due to the physical presence of the turbines and platform, and from the vessels. During construction, any disturbance / displacement will be localised and temporary. Should displacement occur during the operation and maintenance phase, the loss of such a small area (i.e. the development footprint and 1km buffer = 4km<sup>2</sup>) of foraging habitat, is unlikely to have a significant adverse impact on any of the regional populations of the species recorded during the site-specific surveys. The majority of these species have large foraging areas, and the loss of such a relatively small area is unlikely to cause mortality.
22. Puffins were the most abundant species, with a peak June density of 60.14 birds/km<sup>2</sup> in the project area (note this density is taken from the HRA report, the peak density in the ES is 52.78 birds / km<sup>2</sup>). In a second June survey three weeks later, the density decreased to 5.95 birds / km<sup>2</sup>. Although the mean number in the demonstrator site during colony attendance is 30 (see table 11-12 of the ES), resulting in <0.01% of the receptor population affected, the peak June density should have been used in the assessment as the worst case scenario as has been done in the HRA report. This shows that with a 60% displacement level and 100% mortality, it is predicted that 113 puffins will be lost from within the development footprint and a 1km radius. Taking a worst case that all 113 are breeding adults, this results in a loss of 0.1% to the receptor population. However, it is unlikely that there will be 100% mortality for displaced birds. Puffins have a large foraging range, and the loss of development footprint and 1km buffer is unlikely to have a significant adverse impact on the regional population.
23. In Table 11-12 of the ES, the Arctic tern receptor population is 62, derived from the sum of colony counts taken from Mitchell *et al.* (2004)<sup>1</sup>. Due to the moderate numbers of this species recorded during the surveys, the importance of the demonstrator site to the receptor population is medium. The displacement assessment for Arctic terns shows that there will be a 102% increase in annual mortality and a reduction of 48.4% in the breeding success for the regional breeding population, assuming a 50% mortality rate as a result of displacement. This will result in a high magnitude impact

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<sup>1</sup> Mitchell, P.I., Newton S.F., Ratcliffe, N. and Dunn, T.E. (2004). Seabird populations of Britain and Ireland. Poyser, London.

on the regional breeding population for this species. However, we agree with the ES that this assessment is highly precautionary, as the abundance of Arctic terns recorded in the study area is disproportionate to the breeding numbers recorded during the Seabird 2000 census for this species. Considering the Pentland Firth pSPA has an estimated 1000 breeding pairs of Arctic terns, and this site is partially within foraging range for this species, it is likely that the receptor population is larger than estimated. Furthermore, it is considered unlikely that the loss of project footprint and 1km buffer will have a significant adverse impact on the regional population.

### **Collision risk**

24. Species assessed in the collision risk modelling including gannet, great skua, herring gull, greater black-backed gull, kittiwake and Arctic tern. The other seabird species recorded at the project site were presumably excluded due to flight height data indicating they fly below the lowest rotor height.
25. The ES states that only one collision risk model was used, this being the basic Band model (option 1). However, Appendix 11.1 Marine Ornithology also presents results from the Band model (option 2). The ES states that modelling used generic flight height data derived from Johnston *et al.* (2014)<sup>2</sup>. As a precautionary approach an upper confidence level of 95% of the species density estimates from Irwin *et al.* (2015)<sup>3</sup> (the site-specific survey report) was used alongside the upper confidence interval of the flight height for each species provided in Johnston *et al.* (2014). Appendix 11.1 Marine Ornithology also presents results from using site-specific flight height data (Irwin *et al.* 2015). This site-specific flight height data shows a greater proportion of birds within the rotor height and, therefore, results in slightly higher predicted collisions. Although it is disappointing that this worst case is not presented in the ES, the predicted collisions are low for all of the species modelled.
26. There are some inconsistencies with the use of avoidance rates in the collision risk modelling between the ES and Appendix 11.1 Marine Ornithology. However, as mentioned above, the predicted collisions are low for all of the species modelled so this point is not of importance for this assessment. Additional mortality caused by collisions will cause only a small increase to the baseline annual adult mortality rate for all of the species modelled. Therefore, it is unlikely that there will be any significant impacts to the receptor populations.

### **Impacts during the non-breeding season**

27. Biologically Defined Minimum Population Size (BDMPS) populations from the Furness *et al.* (2015)<sup>4</sup> report are used for non-breeding assessments. As mentioned in our response to gate checking (24<sup>th</sup> June 2016), whilst we welcome the consideration of these, we have not currently agreed the best way to incorporate this report into impact assessments and consider that any such assessment should be a qualitative assessment. From the assessment it is considered unlikely that there will be any significant adverse impacts during the non-breeding season.

### **Cumulative impacts**

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<sup>2</sup> 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. *J. Appl. Ecol.* 51, 31 – 41.

<sup>3</sup> Irwin, C., Webb, A & Hawkins, K. 2015. Digital video aerial surveys of seabirds and marine mammals at the Hexicon Dounreay Tró project: final report. Unpublished report by HiDef Aerial Surveying to Hexicon A/S. Document No. HP00054-703.

<sup>4</sup> Furness, R.W. (2015). Non-breeding season populations of seabirds in UK waters: Population sizes for Biologically Defined Minimum Population Scales (BDMPS). Natural England Commissioned Reports, Number 164.

53. There is no cumulative impact assessment for seabirds in the ES. However, cumulative impacts are considered in the HRA report and we refer to our advice that there will be no adverse effects on site integrity as a result of the proposal's effects in combination with other developments.

### **Monitoring**

54. Considering the impact assessment is based on only one year of site-specific survey data, we advise that monitoring of seabird densities and distribution covering the pre-construction, construction and post-construction phases should be considered. Such monitoring will be extremely informative for any future proposals using the same technology, and help to validate the conclusions reached in the ES and HRA.
55. As noted in the ES, the relatively low floating structure offshore may be attractive to some seabird species and provide opportunities for roosting, nesting, and foraging at greater distances offshore. If consented, we advise that monitoring is undertaken to understand the behaviour of seabirds to the platform. Again, such monitoring will be extremely informative for any future proposals using similar technology.

### **cvi. Seascape, landscape and visual impact assessment**

28. Landscape advice on the exact location and development of the onshore infrastructure to support the offshore development, is deferred to The Highland Councils specialist landscape advisor.

### **Summary**

29. The proposed Dounreay Tri floating wind project is unlikely to significantly impact upon or affect the integrity of nationally protected National Scenic Areas (NSAs) or Wild Land Areas (WLAs).
30. We consider there to be potential for moderate and therefore significant effects on sections of coastal character and high sensitivity visual receptors extending between Local Coastal Character Areas (LCCAs) 35 to 41 (and between Strathy and Strathy Point to Ness of Litter). However, these impacts will be largely localised and, therefore, do not trigger issues of national interest to SNH.
31. We disagree with the first 'rule' which has been applied to assessment of cumulative impacts (ES para 15.143), where the assessment for seascape receptors (LCCAs) includes only the offshore developments. To omit consideration of terrestrial wind developments in planning which are proposed along the seaboard within or adjacent to the LCCAs entails that the cumulative assessment is incomplete and results of assessment therefore misleading.

### **Detailed comments**

#### *National Scenic Areas*

32. Whilst Figure 15.7 *Combined ZTV and Landscape Designations* illustrates visibility along the north coastline of the Kyle of Tongue NSA and the western coastline of the Hoy and West Mainland NSA, the relatively small footprint of the development and distance from the NSAs mitigates significant effects.

#### *Wild Land Areas*

33. We agree with the ES assessment of effect, that for the majority of the WLAs within the core and extended study area, that there would be minor or negligible impact on

these areas. For WLA 39 East Halladale Flows, at approximately 10km to the south of the site, there is predicted visibility within the northern extent. However, we agree with the ES that this visibility of turbines (in addition to the baseline visibility which includes Forss and Baillie) is unlikely to be significant and not affect the integrity of the Wild Land Area.

### *Coastal and Landscape Impacts*

34. The location of the site 6km off the coastline mitigates the level of impact on coastal character such that complex interactions between the coast and development are largely avoided, with the development located 'offshore' rather than 'inshore'. The relatively small footprint of the offshore development contributes to this mitigation, such that the development is contained and limited in spread, reducing or avoiding intrusion on the experience of the indented coastline and series of bays.
35. In contrast, the vertical scale of the turbines (at a minimum of 185m in height) located in the sea on a yellow floating platform, heightens its visibility as an unfamiliar and uncharacteristic feature in the Pentland Firth waters. However, onshore turbines (of a similar albeit much smaller 3 bladed design) exist within the Caithness landscape and immediate coastal and landscape proximity of the site.
36. We consider that there will be moderate significant impacts (which include cumulative impacts) on local coastal character, in LCCAs 39, 40 and 41, which partially relates to the uncharacteristic context of the seascape site and scale of the turbines. However this is mitigated by the lower sensitivity of the coastal character and the context of the type of wind and wider energy production infrastructure and turbines within the area, including the overhead pylon lines which terminate at the Dounreay facility.
37. Immediately west of this area, where there is potential for impacts on character along to Strathy Point (and further west), the coastal and landscape character increases in wildness qualities, with a more elevated and far less managed landcover, more open upland moorland and a rugged rocky coastline (LCCAs 35 to 37). The level of sensitivity of this landscape increases markedly. Whilst the distance between the character areas and development starts to increase, where the orientation of coast incorporates the seascape of the site, the turbines will impact potentially significantly. In particular there are likely to be cumulative impacts where the Dounreay Tri floating wind project will extend the experience of turbines as a feature in the coastal character areas (in addition to the existing onshore turbines at Forss and Baillie).
38. We agree with the assessment of effect that there will be some moderate significance of effect on the landscape and coastal resource on Hoy, but that this relates more to the very high sensitivity of the coast (with high scenic and wildness qualities) rather than the magnitude of change.
39. Contrary to the ES, we consider there to be potential for moderate and therefore significant effects on sections of coastal character extending between LCCAs 35 to 41 (Strathy Point to Ness of Litter). However, we consider these impacts to be largely localised and, therefore, do not trigger issues of national interest to SNH. The magnitude of change is increased where the Dounreay Tri floating wind project introduces additional or new areas of change and experience of turbines into the coastal character further west.

### *Visual Impacts*

40. The ES *Technical Appendices 15.5 and 27.4 Visual Material* informing the visual impact assessment is, we consider poor in quality. Primarily the clarity of rendering in the modelling of the turbines entails that the turbines in many 'closer views' are difficult

to discern on the photomontages, even though in many instances the turbines would be front lit, due to position of the development with respect to the majority of receptors.

41. We consider the visualisations, in particular the photomontages, underestimate the predicted visibility of the turbines and could be misleading. To inform our advice we have largely relied on the wirelines and analysis as well as a site visit. Where Dounreay Tri floating wind project would be viewed in combination with the Forss and Baillie onshore wind developments, the visibility of these existing developments (in the photographs and in reality) were used as a proxy to inform potential visibility of the Dounreay Tri turbines.
42. As stated in the ES (ES para 15.118), the project will introduce two very large man-made features in to the open plane of water beyond Sandside Bay. The turbines blades when fully operational will introduce rotational movement into the view. Set on a floating platform the visual relationship between the two turbines would change depending upon the wind resource, although this is unlikely to increase impact significantly. Contrary to the ES, we consider that the bright navigational yellow of the platform, chosen to increase visibility will visually contrast rather than merge with the sea surface.
43. In viewpoints (VPs 2,3,4,5 and 6) from the immediate coastal setting and sequentially along the A836 (a distance of approximately 22kms between Strathy and Forss), we consider there to be at intervals moderately significant cumulative effects. This partially relates to the higher sensitivity of the viewpoint (residents and visitors) at the viewpoints and travelling along the A836, but also the very large scale of the turbines and the uncharacteristic seascape context of the development. In addition, there will be cumulative effects on the baseline views where there is already experience of onshore development at Forss and Bailie. Mitigating the impact is the relatively small footprint of the development, which appears well contained by the much wider panorama of coast and sea.
44. We consider these significant visual impacts to be largely localised and, therefore, do not trigger issues of national interest to SNH.

#### *Cumulative Impacts*

45. Whilst we support the adoption of a proportional approach to the assessment of cumulative effects, we disagree with the first 'rule' which has been applied (ES para 15.143), where the cumulative assessment for seascape receptors (LCCAs) includes only the offshore developments. By their very nature, LCCAs focus on the land / sea interface and comprise both terrestrial and maritime components in their character. As such, to rule out consideration of wind development in planning which are proposed along the seaboard within or adjacent to the LCCAs entails that the cumulative assessment is incomplete and results of assessment therefore misleading. Typically 'rules' of this nature which step away from conventional assessment guidance should be agreed with statutory consultees in advance.
46. We consider that the moderate significant landscape, visual and coastal effects predicated are likely to be contained between Strathy Point and Litter Ness. As such potential cumulative significant effects are likely to reflect this analysis and pattern of effects, and are unlikely to trigger issues of national interest to SNH.

#### **cviii. Terrestrial ecology**

##### **Summary**

47. No protected species were recorded within the onshore survey area, other than breeding birds. The mitigation outlined in 23.12 of the ES is standard in relation to avoiding impacts on breeding birds. The applicant has stated they will complete pre-construction checks for breeding birds (Table 23-15 of ES). We advise that the applicant should also carry out checks for EPS (e.g. otter) and other protected species prior to works commencing.

## APPENDIX D

### DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT - CONDITIONS

1. In addition to the recommended conditions below, we also consider, as part of any S36 consent, an appendix is attached to the decision letter with a description of the proposal with all aspects that are consented.
2. We also request that any environmental survey and monitoring information is made publicly available. We would welcome the opportunity to advise further on the detail of these conditions.

<b><u>Condition</u></b>	<b><u>Reason</u></b>
<p><b>Confirmed turbine design and location</b></p> <p>Confirmed wind turbine and platform design and location, a map of the final platform location and export cable shall be submitted to Marine Scotland prior to commencement of works, within a timeframe to be agreed.</p>	<p>Consent is based on a design envelope therefore a condition to ensure a final turbine and platform design and location is submitted.</p>
<p><b>Project Environmental Monitoring Programme (PEMP)</b></p> <p>A PEMP to be produced to investigate the environmental impacts of this development. Marine Scotland, in consultation with relevant consultees, will agree the environmental interests to be monitored and appropriate monitoring methodologies. The monitoring programme will cover construction and operational periods of development. The PEMP will be regularly reviewed, the review cycle to be decided by Marine Scotland in consultation with relevant consultees.</p> <p>The agreed monitoring will be implemented and the data collected will be reported on and made publicly available.</p> <p>Detailed entanglement monitoring and reporting schedule is provided as part of the PEMP in order to mitigate and monitor entanglement for this demonstrator proposal</p>	<p>Monitoring objectives including validation of ES predictions; mitigation and monitoring methods and reporting timescales.</p> <p>Timings of agreement of a final PEMP and subsequent review of requirements should be set up within a suitable timeframe.</p>
<p><b>Environmental Manager / Environmental Clerk of Works</b></p> <p>Within a timeframe agreed with Marine Scotland, the developer shall employ an Environmental Manager. The Environmental Manager's role, responsibilities and work programme shall be submitted to Marine Scotland and relevant consultees for approval. The Environmental Manager will have responsibility for ensuring implementation of the Construction Method Statement and the PEMP, including any required mitigation measures or monitoring. In addition, the Environmental Manager will have responsibility to reporting any breaches and compliance issues directly to the project manager and if still in breach directly to MS Compliance officers.</p>	<p>Employment of this post will ensure compliance with all aspect of the consents / licence conditions.</p> <p>The duration and operating hours of this post to be agreed in advance of the commencement of any development between MS LOT, the developers and statutory consultees.</p>

<p><b>Construction: Environmental Mitigation and Management Plan (EMMP)</b></p> <p>Within a timeframe agreed with Marine Scotland, the developer shall draft and submit a plan for environmental management during construction, including both onshore and offshore elements.</p> <p>The plan shall be submitted to Marine Scotland for approval in consultation with relevant consultees. The approved plan will be implemented.</p> <p>The plan will detail mitigation measures to prevent adverse impacts to species and habitats during construction. It shall cross-reference any relevant monitoring requirements during construction, taken from the PEMP. It will provide the overall framework in which the construction method statements (or equivalent) and vessel management plan will sit.</p> <p>This construction EMMP will detail how each and all contractors and sub-contractors will be made aware of environmental sensitivities, what requirements they are expected to adhere to and how chains of command will work.</p> <p>It will also confirm the reporting mechanisms that will be used to provide Marine Scotland and relevant consultees with regular updates on construction activity, including any environmental issues that have been encountered and how these have been addressed.</p>	<p>To minimise disturbance to birds, marine mammals.</p>
<p><b>Construction: Method Statements</b></p> <p>Construction method statements (or equivalent) for the development including the export cable and landfall shall be submitted prior to the commencement of work and within a timescale to be agreed with Marine Scotland.</p> <p>The statements shall be submitted to Marine Scotland for approval in consultation with relevant consultees. The statements will include details of commencement dates, duration and phasing for key elements of construction.</p> <p>This should include checks on EPS and protected species prior to onshore works commencing.</p>	<p>This is required to fully inform the deployment of the devices, etc.</p>
<p><b>Construction: Vessel Management Plan</b></p> <p>Within a timeframe agreed with Marine Scotland, the developer shall draft and submit a plan for vessel management during construction. It shall present details on the type and overall number of vessels required during construction, including a specification for each individual vessel to be deployed. It shall set out how vessel management will be co-ordinated, specifying the location of working port(s), the routes of passage and how often vessels will be required to passage between port(s) and site.</p>	<p>To minimise disturbance to birds and marine mammals.</p>

<p><b>Operations &amp; Maintenance (O&amp;M): Programme</b></p> <p>Within a timeframe agreed with Marine Scotland, the developer shall draft and submit their programme for operations &amp; maintenance (O&amp;M). The programme will be approved by Marine Scotland in consultation with relevant consultees. It will take account of environmental sensitivities which may influence the timing of O&amp;M activities. It will set out O&amp;M vessel requirements and vessel management.</p> <p>The O&amp;M Environmental Management Plan will detail how each and all contractors and sub-contractors will be made aware of environmental sensitivities, what requirements they are expected to adhere to and how chains of command will work during O&amp;M activity.</p> <p>The approved O&amp;M programme will be implemented, and it will be reviewed regularly. The reporting cycle will be agreed by Marine Scotland in consultation with relevant consultees.</p>	<p>To fully understand the requirements for operation and maintenance to fully inform any mitigation and monitoring requirements for natural heritage interests.</p>
<p><b>O&amp;M: Export Cable(s)</b></p> <p>A monitoring and maintenance programme for the grid export cable(s) and landfall site shall be agreed with Marine Scotland.</p>	
<p><b>Decommissioning</b></p> <p>A decommissioning plan will be required for the entire scheme. As part of any consent, Marine Scotland shall consider and recommend a timeframe for the production, consultation and implementation of a decommissioning plan. We recommend that this is an iterative process and that an initial decommissioning strategy is produced by the developer.</p>	



Our Ref: MM/rg L16-110

Your Ref:

29<sup>th</sup> November 2016

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

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

[ms.marinerenewables@gov.scot](mailto:ms.marinerenewables@gov.scot)

Dear Sirs,

#### DOUNEREAY TRI FLOATING WIND DEMO APPLICATIONS

The Scottish Fishermen's Federation (SFF) is pleased to comment on this application on behalf of the 500 plus fishing vessels in membership of its constituent associations; the Anglo Scottish Fishermen's Association, the Clyde Fishermen's Association, the Fishing Vessel Agents & Owners Association (Scotland) Ltd, the Mallaig & North-West Fishermen's Association Ltd, the Orkney Fisheries Association, the Scallop Association, the Scottish Pelagic Fishermen's Association, the Scottish Whitefish Producers Association and the Shetland Fishermen's Association.

The SFF acknowledges that extensive desktop and physical research has gone into choosing the site, with due consideration given to lessening any possible impact on fishing. If the final site chosen is, as the ES appears to say, on the southern edge of the area, this aim should be achieved, in terms of not majorly interfering with either fishing activity or navigation.

The SFF is, however concerned with the proposed area for dredging the seabed to provide flat bottom for the plinth, and also with the proposal for potential scour protection of the anchors. With the lack of detail in this ES, the SFF would note that these would potentially be a big problem at the time of decommissioning as they would make it almost impossible to restore the area to its post development state, which is the SFF preference.

Taken together with the sparse details given on the export cable route, giving a figure of 2.8km of Rock dumping, there remains a lot of discussion to be had on these 2 subjects, alongside the discussion the SFF would expect to see taking place over the Cable Burial Plan.

#### Members:

Anglo Scottish Fishermen's Association • Clyde Fishermen's Association • Fife 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 • The Scottish White Fish Producers' Association Ltd • Shetland Fishermen's Association

VAT Reg. No: 605 096 748

At this stage with all the evidence on the seabed and route options, the SFF is prepared to discuss the suitability of rock dump or mattresses for use in any given area. This would be the appropriate time to discuss scour protection, and whether there is sufficient wave motion to make this a problem.

The Sff notes the commitment to following the FLOWW guidelines and would stress the importance of a good FLO in ensuring a smooth flow of information between developers and stakeholders. A striking example of the need for this is the use of arbitrary phrases such as “operational advisory zone” in GM24 on page 51. The SFF is determined to see a uniform vocabulary of definitions, obviously based on 40 years of experience in the Oil and Gas sector, to avoid confusion in the marine environment and this matter is being addressed with the cable industry within the FLOWW group.

The SFF finds the paragraphs from 12.41 onwards on fishing activity to be confusing and misleading mixing three levels of data together rather than concentrating on the relevant local figures. The description of the fleet is not helpful and in terms of the value proposed in table 18-115 claiming to possibly use local vessels to deploy equipment and cables, positively disingenuous. The SFF would expect to see some clarity from the developer as to what work they can genuinely offer local vessels to mitigate the disturbance they will cause during construction.

The SFF was surprised to see in Chapter 18 on Socio-Economics that the developers had not referred to the 2012 publication “Best Practice Guidelines for Fishing Industry Financial and Economic Impact Assessments” which could have helped tremendously with that aspect.

Following completion of the works the industry would seek a post lay survey to confirm burial of the cable being disseminated by the FLO. The SFF would also expect to be added to the notifications of any lost gear which becomes trapped in the mooring system, along with the Fishing for Litter project.

The SFF remains open to further discussion, especially on The Cable Burial Plan and on the developers’ proposals for mitigation, so we look forward to hearing from you.

Yours Sincerely

A large black rectangular redaction box covering the signature area.A black rectangular redaction box covering the name of the signatory.

Chief Executive  
Scottish Fishermen’s Federation

**From:** [Watson, Douglas](#)  
**To:** [Drew J \(Jessica\)](#)  
**Subject:** RE: CONSULTATION END - DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT  
**Date:** 01 December 2016 16:08:21

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Jessica,

The Crown Estate Scotland Portfolio is aware of the project and is in discussion with the developer with regards rights to the seabed. We have no comments to make on the application itself.

Kind regards,

Douglas

---

**Douglas Watson**  
Marine Policy and Planning Adviser



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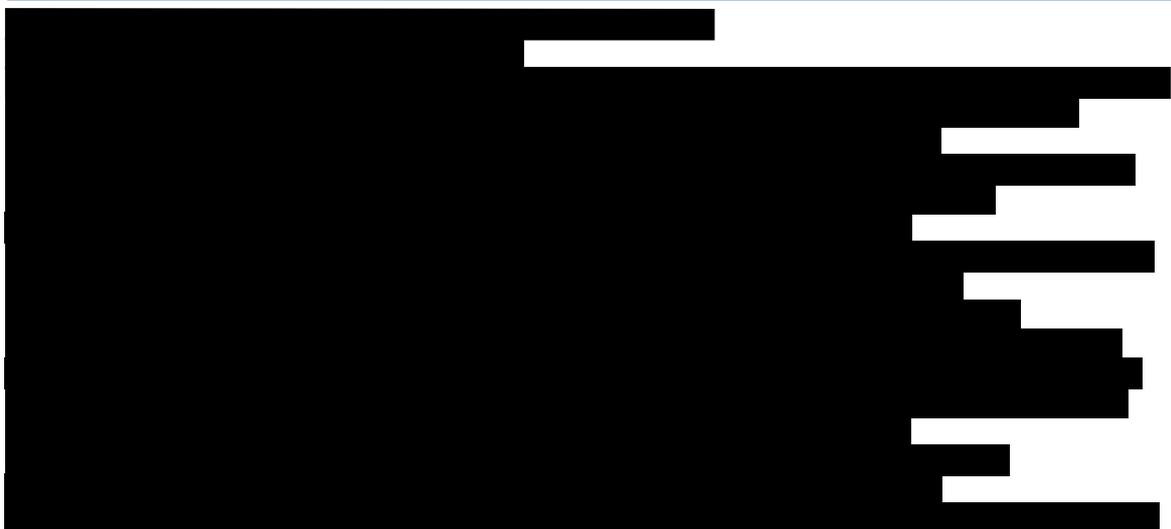
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Marine Scotland  
Jessica Drew  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
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Please ask for: Emma Forbes  
Direct Dial: 01955 609554  
E-mail: emma.forbes@highland.gov.uk  
Our Ref: 16/04775/S36  
Your Ref:  
Date: 27 February 2017

Dear Sir/Madam

**ELECTRICITY ACT 1989  
MARINE (SCOTLAND) ACT 2010  
TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997**

**PLANNING REFERENCE: 16/04775/S36  
DEVELOPMENT: CONSTRUCTION OF TWO OFFSHORE WIND TURBINES ON A  
SINGLE FLOATING PLATFORM, EACH WITH AN INSTALLED CAPACITY OF UP TO  
6MW (MAX ROTOR TIP OF 201M AND MAX HUB HEIGHT OF 124M ABOVE THE  
LOWEST ASTRONOMICAL TIDE), INSTALLATION OF EXPORT CABLE AND DEEMED  
PLANNING PERMISSION FOR ERECTION OF ONSHORE ELECTRICITY SUBSTATION  
LOCATION: AT DEVELOPMENT SITE 6KM NW OF DOUNREAY NUCLEAR RESEARCH  
ESTABLISHMENT, DOUNREAY**

Thank you for your consultation of 19 October 2016 in respect of the above.

A meeting of the North Planning Applications Committee convened on 21 February 2017 to consider the Council's consultation response. The Council's position is that it wishes to **raise no objection** to the proposals subject to the conditions set out in our report to committee.

Full details of the meeting, and the report can be found by following the link  
[http://www.highland.gov.uk/meetings/meeting/3816/north\\_planning\\_applications\\_committee](http://www.highland.gov.uk/meetings/meeting/3816/north_planning_applications_committee)  
Under Item 6.2.

As the minute of the meeting is not yet available I am unable to provide a copy of this at this time. It will however also be available on our web-site following the next Committee meeting.

Yours faithfully



Emma Forbes  
**Acting Team Leader/Principal Planner (Caithness and Sutherland)**

**THE HIGHLAND COUNCIL**

**NORTH PLANNING APPLICATIONS COMMITTEE  
10 JANUARY 2016**

Agenda Item	5.6
Report No	PLN/007/17

**16/04775/S36 : Dounreay Tri Limited**

**Development Site 6KM NW of Dounreay Nuclear Research Establishment, Dounreay**

**Report by Area Planning Manager**

**SUMMARY**

**Description :** Construction of two offshore wind turbines on a single floating platform, each with an installed capacity of up to 6MW (max rotor tip of 201m and max hub height of 124m above the lowest astronomical tide), installation of export cable and deemed planning permission for erection of onshore electricity substation

**Recommendation - RAISE NO OBJECTION**

**Ward :** Landward Caithness

**Development category :** Major (Application under Section 36 of Electricity Act 1989)

**Pre-determination hearing :** None

**Reason referred to Committee :** Application under S36 of the Electricity Act 1989.

**1. PROPOSED DEVELOPMENT AND BACKGROUND**

1.1 The Highland Council has been consulted by Marine Scotland on applications submitted to them for:

1. Two Marine Licences pursuant to Section 20 of the Marine (Scotland) Act (the "2010 Act") for the deposit of substances and objects and the construction, alteration or improvements of works within the Scottish Marine Area in relation to the Windfarm; and
2. Consent under Section 36 of the Electricity Act 1989 (the "1989 Act") for the construction and operation of a Generating Station ("Section 36 Consent"); and
3. A Direction Under Section 57 Of The Town And Country Planning (Scotland) Act 1997 (As Amended) That Planning Permission For The Ancillary Onshore Development Be Deemed To Be Granted; and
4. A declaration, pursuant to Section 36A of the Electricity Act to extinguish public rights of navigation so far as they pass through those places within the Scottish Marine Area where the single structure forming part of the offshore Windfarm is to be.

1.2 The proposal incorporates works in the marine and terrestrial (land) area. The Growth and Infrastructure Act 2013 allows for the Scottish Ministers to grant deemed planning permission for onshore elements of offshore electricity generation schemes granted consent under Section 36 of the electricity Act. As such, a separate planning application shall not be submitted to the Highland Council, rather deemed consent for the associated onshore infrastructure shall be sought from the Scottish Ministers as part of the Section 36 application. This report and the Council's consideration relates only to applications 2 and 3 above.

1.3 The proposal comprises:

- construction of two offshore wind turbines on a single floating platform.

Each turbine has an installed capacity of up to 6MW (max rotor tip of 201m and max hub height of 124m above the lowest astronomical tide). This represents the maximum. 3 options are being considered by the developers, including the aforementioned 6MW turbine - a 4MW with a rotor tip of 185m and 5MW with a rotor tip of 186m. All turbine options have 3 blades are set on a yellow platform base. The offshore site area comprises a 5km x 5km area approximately 6km off the coast of Dounreay. The exact siting of the turbines within this area is not conclusively confirmed in the application. In addition to the actual turbines, the offshore elements include: a floating foundation; mooring clump weight; mooring chain and/or steel lines; drag embedment anchors; and scour protection for the anchors and export cable where necessary. The floating platform will be assembled and installed on the platform at a fabrication port and then towed out with the turbines pre-installed, only requiring hooking up to the mooring lines and export cable. Safety lighting is included on the turbines to aviation and navigation specifications.

- installation of a single 33kV export cable

This will bring power to shore immediately to the west of the Dounreay Restoration Site fence line. Installation of the subsea cable, anchors and mooring lines will take around 3 months. These will be buoyed and will take up a small area of sea space. Two cable landfall options have been submitted and indicative onshore cable corridors to connect to the landfall and substation options to the west of Dounreay and Sandside Bay. This stretch of coastline is dominated by slabbing rocks which makes conventional trenched cable landfall very challenging. Two trenchless landfall options are proposed - horizontal directional drilling or pinning. This will also include a cable joint transition bay, where the offshore and onshore cables are spliced together. Two cable landfall options are identified at this stage as both options present different risks to the developer. The onshore cable will be buried to a depth of approximately 1m, subject to ground conditions and will be installed in a trench along the cable route. It is expected that one cable will be installed in a single trench up to 3m with an associated working corridor of up to 20m. The cable route will not be finalised until a contractor is appointed. The construction period for the cable is estimated at 3 months.

- deemed planning permission for erection of onshore electricity substation or switchgear

The substation is to transfer power to the grid at or near the existing Dounreay substation. Two potential locations for the onshore substation have been submitted, these lie immediately south of the Dounreay/Vulcan compounds, adjacent to the existing Dounreay substation. The turbines will export power at

33kV. The project will require either a switchgear to connect to the distribution network at 33kV or a substation to connect to the transmission network at 132KV. The onshore substation or switchgear will include the electrical equipment required to connect the project to the grid. The entire footprint of the substation/switchgear site is likely to be an area of approximately 50m x50m (0.25ha). The majority of electrical plant should be indoors. The substation building itself will be approximately 30m long, 17.5m wide and up to 8m above finished ground level. External lighting will be used to illuminate the building but this will be intermittent and only when people are on site. Following commissioning, it is assumed that the onshore substation will operate continuously (24 hours a day, 7 days a week) except during planned shutdowns for maintenance. The onshore substation will be designed to remain in situ during the life of the wind farm, which is envisaged to be up to 25 years. The substation site will be accessed via an existing access from the A836 which was installed during the upgrade of the Dounreay-Mybster Line in 2015. The construction period for the substation is 12-18 months.

- Laydown area

For the construction of the onshore cable and its landfall, substation and if required, a horizontal directional drilling compound. It is proposed to make use of an existing area of hardstanding which was used during the construction of the existing Dounreay substation in 2013.

- Decommissioning proposals as the lifetime of the development is expected to be 25 years.

- 1.4 The Highland Council is an important consultee and views are sought regarding specifics of the proposal as outlined above, including the type and siting and design of the turbines within the identified envelope, the cable route and the siting, design and external appearance of the substation/switchgear.
- 1.5 The turbines are a demonstration project with two key objectives which are set out in the supporting information submitted by the applicant:
1. to test the performance of a multi turbine floating wind platform in a real offshore environment and use these results to refine the platform for larger scale projects overseas
  2. Verification of the economic return to provide a base for more realistic estimations for utility scale projects overseas.
- The development has an expected operational life of 25 years.
- 1.6 The applicant has undertaken a site selection exercise to identify this site and has undertaken consultation including a stakeholder drop in session held on 2 February 2016 at Caithness Horizons, Thurso and a public consultation event on 9 April 2016, also at Caithness Horizons, Thurso. A report of public consultation is included in the ES.
- 1.7 An Environmental Statement has been submitted. The assessment process makes use of the design envelope, an approach to assessment applied where the final design cannot be confirmed ahead of the determination of the application and a level of flexibility is required. The Environmental Statement (ES) therefore sets maximum and minimum turbine dimensions against which the proposal is assessed, as outlined above. It also provides an envelope for the siting of the turbines in the sea. The ES is based on the realistic worse case scenario.

The ES defines impacts and effects and cumulative impacts. It also covers: physical and coastal processes; intertidal ecology; benthic and shellfish ecology; fish ecology; marine mammals, turtles and basking sharks; marine ornithology; commercial fisheries; shipping and navigation; aviation and radar; archaeology and cultural heritage; other users of the marine environment; marine renewable energy activities; military activities; subsea cables and utilities; socio-economic; recreation and tourism; geology and hydrology; land use, agriculture and soils; terrestrial ornithology terrestrial ecology; onshore archaeology and cultural heritage; air quality; seascape, landscape and visual amenity.

1.8 It is considered that Marine Scotland is more appropriately placed to come to a view on the acceptability or otherwise of effects on the marine environment and ecology. This report notes all technical consultation responses and representations received but is principally concerned with assessment of the onshore aspects from a land use planning perspective.

1.9 **Variations:** None

## 2.0 **SITE DESCRIPTION**

2.1 The offshore site is located approximately 6km of the coast of Dounreay Nuclear Research Establishment. The site comprises an area of 5km x 5km, it is proposed to site the turbines within this envelope.

2.2 A 0.25ha site area is identified for the onshore elements. It is bound to the north by the coast, to the east by Dounreay Nuclear Facility/HMS Vulcan compound and to the west and south by agricultural land. The site is predominantly flat. There is a working farm located approximately 500m SW of the site area, including a house (Isauld House). The A836 is located to the south east of the site. There is an existing access from the A836 to the onshore site.

2.3 The Seascape, Landscape and Visual Assessment undertook baseline surveys within a core 45km radius study area, extended to a 60km radius to include the full extent of the Hoy and West Mainland, and Kyle of Tongue National Scenic Areas. The Seascape, Landscape and Visual Assessment section of this report considers this in more detail.

Designations included within this area are:

### National Scenic Areas

- Hoy and West Mainland (Orkney)
- North West Sutherland
- Kyle of Tongue

### Special Landscape Areas

- Oldshormore
- Cape Wrath and Durness
- Eriboll East and Whiten Head
- Farr Bay, Strathy and Portskerra
- The Flow Country and Berridale Coast
- Bens Griam and Loch nan Clar

- Ben Kilbreck and Loch Choire
- Loch Fleet , Loch Brora and Glen Loth
- Dunnet Head
- Duncansbay Head.

### Special Protection Areas

The cliffs in the north of the site are designated as Caithness Cliffs SPA.

### Gardens and Designed Landscapes

- Castle of Mey
- Melsetter House (Orkney)
- Tongue House

### Wild Land

- Ben Kilbreck – Armine Forest
- Causeymire – Knockfin Flowa
- Foinaven- Ben Hee
- Ben Hope – Ben Loyal
- East Halladale Flows
- Cape Wrath
- Hoy (Orkney)

### Archaeology

A number of archaeological records exist within and in proximity of the site. The applicant has considered that due to presence of known archaeology in the area the area of the application site has potential for further finds.

- 2.4 When assessing a wind farm proposal, consideration of similar developments in proximity of the proposal for cumulative effects is required. The list below sets out the projects in the wider area that are operational, approved or have been submitted but not yet determined.

### Built and / or consented

- Baillie
- Forss
- Bettyhill
- Strathy North
- Hill of Lybster
- Weydale
- Achlachan
- Causeymire
- Bad a Cheo
- Halsary

### Under consideration

- Strathy South (awaiting decision by Scottish Ministers)
- Strathy Wood
- Limekilns (considered by North Planning Applications Committee on 10 January 2017 – recommendation - conditional raise no objection)
- Drumholiston (expecting to respond to Scottish Government by April 2017)

### **3. PLANNING HISTORY**

- 3.1 15/02035/PREAPP - Dounreay Tri Offshore Wind Farm. Construction and operation of a floating Offshore Wind Farm approximately 9 KM off Dounreay, consisting of three turbines of between 5 to 10MW each. A Semi-submersible foundation, six to eight anchors and associated moorings, a single marine cable of 33KV, a single terrestrial cable and infrastructure to connect to the grid.

The Planning Service highlighted that the key issues are seascape, landscape and visual impact and that these issues require to be fully addressed in a formal submission.

16/00362/SCOP - Proposed section 36 application and marine application for Dounreay Tri Floating Wind Demonstration Project

### **4. PUBLIC PARTICIPATION**

- 4.1 Advertised :

John O’Groat Journal	18 <sup>th</sup> and 25 <sup>th</sup> November 2016
Caithness Courier	23 <sup>rd</sup> and 30 <sup>th</sup> November 2016
Edinburgh Gazette	18 <sup>th</sup> and 25 <sup>th</sup> November 2016
The Herald (Glasgow)	22 <sup>nd</sup> November 2016

Representation deadline : 6 January 2017

The Council has established practice for handling of representations in cases where it is a consultee. Representations and consultation responses are directed to Marine Scotland. The Council’s practice is to consider all representations which raise material planning issues when forming a view. The expiry of the representation deadline on Friday 6 January 2017 is the reason for the delayed conclusion and publication of this report.

Timeous representations : 5 objections, 1 support

Late representations :

- 4.2 Material considerations raised are summarised as follows:

1 representation in support:

- Employment opportunities and growth of new industry

## 5 representation - objections:

- Visual impact and impact on scenic beauty
- Cumulative seascape, landscape and visual impacts
- Cumulative visual impact has not been assessed
- Degradation of scenic beauty due to industrialisation of the marine environment
- Could reduce tourist related jobs in the area and impact on tourism generally
- Note that Marine Scotland concluded in their letter of 4th February 2015 that there is a potential for significant environmental effects from the proposal.
- Impact on ornithology – puffins and gannets
- Existing residents leaving the area and people being put off moving to area due to number of windfarms
- To date there has been little or no employment for local people in the construction of wind farms – limited economic benefit
- Impact on whale migration – believe these are on a cycle and not annual as the surveys submitted with the application suggest.
- People come to and live in the area for the uninterrupted views where you can see the horizon line

### Not material planning considerations

- Impact on private views
- Impact on health
- Impact on house prices
- Inefficient/ineffective technology
- Set precedent for further wind farms to be built
- Caithness is already a net exporter of electricity to rest of UK. Object to any more being approved in this area
- Disturbance to the no-fishing zone around the Dounreay site which is currently seen by many local people as being a significantly positive zone for the marine life which has been recovering in this area.
- Maritime hazard and danger to shipping and increase in potential for environmental damage from ships encountering problems
- No significant community benefit for the community in Portskerra/Melvich

4.3 All letters of representation are available for inspection via the Council's eplanning portal which can be accessed through the internet [www.wam.highland.gov.uk/wam](http://www.wam.highland.gov.uk/wam). Access to computers can be made available via Planning and Development Service offices.

## 5.0 CONSULTATIONS

### 5.1 Consultations undertaken by the Highland Council

- 5.2 **Transport Planning** : No objection. A Traffic Statement (TS) has been submitted which concludes there is no potential for significant environmental impacts from traffic and transport. Mitigation measures identified include the TS and a Construction Traffic Management Plan which will form part of the Onshore Construction Method Statement. Transport Planning are generally satisfied with the methodology and content of the TS. As stated in the TS however, traffic numbers associated with the development are not yet fully understood in terms of routes and numbers. It is therefore recommended that the TS be updated when the project has progressed to a stage when reliable data is available. At this stage, a review of the routes to site for construction traffic will be required. Thereafter, a programme of mitigation/improvement works shall be agreed and carried out by the developer in consultation with the Council as Roads Authority.
- 5.3 **Coastal Planner** : No objection. Consideration relates to the intertidal and marine elements in relation to development plan policy and biodiversity and Natura duties only. As far as can be determined, the proposal complies with Policies 49, 57-60 of the adopted Highland wide Local Development Plan in relation to the marine and coastal elements. Depending on the exact final location, it would lie off a section of either 'undeveloped' or 'isolated' coastline as defined in the Highland Coastal Development Plan. However, given the distance off shore and the relatively short section of 'isolated' coast, this is not a significant issue of concern with relation to Policy 49 of the HwLDP. The proposal complies with Policy 4: Renewable Energy Generation of the Pilot Pentland Firth and Orkney Waters Marine Spatial Plan, as well as with the various biodiversity policies as far as can be ascertained. There are other specific matters for Marine Scotland to consider within their remit.
- 5.4 **Landscape Officer** : Considers that the landscape and seascape effects are underestimated in the ES but are judged to be acceptable taking all relevant matters into account. Impacts are generally greater than recognised in the ES but it is considered that these are relatively limited in extent and do not significantly compromise the characteristics of the landscape and seascape characters as a whole. Raises concerns about the acceptability of the visual impacts as depicted in the ES. These may be successfully mitigated by siting the turbines within the north west of the site identified and with a 5MW turbine with a tip height of approx. 184m above sea level. The ES assessed a tip height of 201m. The visual impacts of smaller turbines further offshore have not been demonstrated by the applicant as amended visualisations have not been submitted.
- 5.5 **Environmental Health**: No objection but request that conditions be attached regarding noise for the turbines, and for the substation/switchgear.
- 5.6 **Caithness West Community Council**: No response
- 5.7 **Consultations Undertaken by Marine Scotland**
- 5.8 **BT Radio Network Protection** : No comments

- 5.9 **Caithness District Salmon Fishery Board** : No specific comments
- 5.10 **Maritime and Coastguard Agency** : No objection . A Navigation Risk Assessment has been submitted. Subject to the developer meeting requirements set out by Maritime and Coastguard Agency, it provides a cautious acceptance of the licence request. Each turbine must be lit with a single 2000 candela red aviation light.
- 5.11 **NATS** : No objection
- 5.12 **Royal Yachting Association Scotland**: No objection subject to clarification of the rights of navigation.
- 5.13 **SEPA**: No objection subject to conditions being attached regarding submission of the final cable route, appointment of an ecological clerk of works, compliance with mitigation measures identified in ES. Note that the finalised location of the onshore infrastructure is yet to be agreed but as long as the infrastructure is located within the corridors shown, it is not considered that there will be significant environmental effect on SEPAs interests (peat, watercourses and private water supplies). Decommissioning best practice and legislation will be applied at that time.
- 5.14 **Northern District Salmon Fishery Board** – No specific comments
- 5.15 **Transport Scotland**: No objections. The proposal will not significantly impact upon the trunk road network nor will it give rise to any significant environmental impacts on receptors adjacent to the trunk road network
- 5.16 **UK Chamber of Shipping**: No specific comments
- 5.17 **RSPB Scotland**: No objections. Whilst located in an environmental sensitive region, the project is small scale and the associated potential impacts are low. A condition should be applied to require an environmental monitoring programme.
- 5.18 **Transport Scotland Ports and Harbours**: No specific comments
- 5.19 **Crown Estate**: No specific comments
- 5.20 **Scottish Fishermen’s Federation**: Comments regarding dredging and impact on decommissioning, rock dumping and the cable burial plan.
- 5.21 **OIC Marine Services**: No specific comments
- 5.22 **Pentland Firth Yacht Company**: No objections
- 5.23 **Northern Lighthouse Board**: Comments relating to Shipping and Navigational Safety
- 5.24 **Nuclear Decommissioning Authority**: No specific comments
- 5.25 **Melvich Community Council**: Concerns raised. The existing wind farm in our area, SSE’s Strathy North, as well as the proposed Strathy South wind farm have shown a good level of consideration for the impact these turbines would have on the views of those who both live and visit the area. In comparison, the developers of this proposal have clearly shown no such consideration. The appeal for a number of residents who have moved to our area are the uninterrupted views across to Orkney. Should this proposal be approved the turbines, being of such a significant height, will have a substantial impact on these views. We expect this would put off any individuals who were considering moving to Melvich and Portskerra in the future. Related to the above point, it has been noted that wind farms can have a huge impact on the house prices in the areas to which they are

visible. In a village like Melvich, where we are currently under threat of losing both our local school and care home in the future, the drop in house prices that would come with this proposal. We would ask that sensitivity to the above concerns of our village be taken into consideration when making a decision on this proposal.

- 5.26 **Historic Environment Scotland:** No objection. Suggest that a suspensive condition be applied regarding the proposed mitigation relating to marine assets.
- 5.27 **Castletown and District Community Council:** No specific comments
- 5.28 **Caithness District Salmon Fishery Boards:** No specific comments
- 5.29 **CAA:** comments regarding aviation safety and sets out safety requirements
- 5.30 **Aberdeen International Airport:** No specific comments
- 5.31 **MOD:** no objection. Comments regarding the requirement for aviation safety lighting and notification of development
- 5.32 **SNH:** No objection. Unlikely to have significant adverse impacts on international or national natural heritage interests. The project is relatively small scale with the majority of impacts being localised and (during construction) temporary in nature. Although there may be some cumulative impacts with other development, it is unlikely that these will have a significant adverse impact.
- 5.33 **Scrabster Harbour:** No objection. Supports the proposal for its environmental and economic benefits
- 5.34 **WDC Scottish Dolphin Centre:** No objection. General agreement that the level of impact on marine mammals in the area will be negligible as long as pile driving is not required. Request involvement in the development of the Vessel Management Plan and Marine Mammal Observers should be used at all times during construction and deployment of the wind farm floating platform and cable laying. Agree that there would be no adverse effect on the SACs.
- 5.35 **Marine Scotland Science:** No objection, mitigation measures to be implemented

## 6. DEVELOPMENT PLAN POLICY

The following policies are relevant to the assessment of the application

### 6.1 Highland Wide Local Development Plan 2012

Policy 28	Sustainable Development
Policy 29	Design, Quality and Place Making
Policy 31	Developer Contributions
Policy 51	Trees and Development
Policy 55	Peat and Soils
Policy 56	Travel
Policy 57	Natural, Built and Cultural Heritage
Policy 58	Protected Species
Policy 59	Other Important Species
Policy 60	Other Important Habitats
Policy 61	Landscape
Policy 63	Water Environment
Policy 67	Renewable Energy Developments

- Natural, Built and Cultural Heritage
- Other Species and Habitat Interests
- Landscape and Visual Impact
- Amenity at Sensitive Locations
- Safety and Amenity of Individuals and Individual Properties
- The Water Environment
- Safety of Airport, Defence and Emergency Service Operations
- The Operational Efficiency of Other Communications
- The Quantity and Quality of Public Access
- Other Tourism and Recreation Interests
- Traffic and Transport Interests

Policy 72

Pollution

Policy 77

Public Access

## 6.2 **Caithness Local Plan 2002 (As Continued in Force 2012)**

The general policies and land allocations of the Local Plan pertinent to this application have been superseded by the policies of the Highland-wide Local Development Plan.

## 6.3 **Caithness Onshore Supplementary Guidance Nov 2016**

Onshore Wind Energy Supplementary Guidance is a material consideration in the determination of planning applications. This requires the proposal to be assessed, as noted above, within Policy 67 of the HwLDP. The Supplementary Guidance also expands on the considerations / criteria set out in the Development Plan policy.

## 7.0 **OTHER MATERIAL CONSIDERATIONS**

### 7.1 **Caithness and Sutherland Local Development Plan: Modified Proposed Plan**

7.2 The onshore site is within area identified for Energy Business Expansion in the plan's strategy. The Plan also refers to a "strong, diverse and sustainable economy characterised as being an internationally renowned centre for renewable energy, world class engineering, land management, and sea based industries and a tourist industry that combines culture, history and adventure. One of the overall aims is to ensure that development helps to maintain and grow a strong and diverse Caithness and Sutherland Economy. The Proposed Plan confirms the boundaries of the Special Landscape Areas.

### 7.3 **Highland Council Supplementary Planning Policy Guidance**

The following Supplementary Guidance forms a statutory part of the development plan and is considered pertinent to the determination of this application.

- Flood Risk and Drainage Impact Assessment: Supplementary Guidance (January 2013)
- Highland Historic Environment Strategy: Supplementary Guidance (March 2013)
- Managing Waste in New Developments: Supplementary Guidance (March 2013)

- Sustainable Design Guide: Supplementary Guidance (January 2013)
- Highland Statutorily Protected Species: Supplementary Guidance (March 2014)

#### 7.4 **Other Highland Planning Guidance**

7.5 The Highland-wide Local Development Plan is currently under review and is at Main Issues Report Stage. It is anticipated the Proposed Plan will be published in 2017.

7.6 In addition to the above, guidance sets out further advice on delivery of major developments in a number of documents. This includes Construction Environmental Management Process for Large Scale Projects and The Highland Council Visualisation Standards for Wind Energy Developments to which all proposals are expected to adhere to.

#### 7.7 **Other Policy/Guidance**

- Pilot Pentland Firth and Orkney Waters Marine Spatial Plan

#### 7.8 **Scottish Government Planning Policy and Guidance (June 2014)**

7.9 Scottish Planning Policy (SPP) advances principal policies on Sustainability and Placemaking, and subject policies on A Successful, Sustainable Place; A Low Carbon Place; A Natural, Resilient Place; and A Connected Place. It also highlights that the Development Plan continues to be the starting point of decision making on planning applications. The content of the SPP is a material consideration that carries significant weight, although it is for the decision maker to determine the appropriate weight to be afforded to it in each case.

#### Other Material Planning Considerations

- 7.10
- National Planning Framework for Scotland 3
  - PAN 56 – Planning and Noise
  - PAN 58 – Environmental Impact Assessment
  - PAN 60 – Planning for Natural Heritage
  - 2020 Routemap for Renewable Energy

#### 8.0 **PLANNING APPRAISAL**

8.1 As explained in Section 1 of this report, the application has been submitted to the Scottish Government for approval under Section 36 of the Electricity Act 1989 (as amended). While not a planning application, the Council processes S36 applications in the same way as a planning application as consent under the Electricity Act will carry with it deemed planning permission under Section 57(2) of the Town and Country Planning Scotland Act 1997 (as amended).

## 8.2 Determining Issues

The determining issues for the Council as Planning Authority responding to this consultation are:

- do the proposals accord with the development plan?
- if they do accord, are there any compelling reasons for objecting to them?
- if they do not accord, are there any compelling reasons for not objecting to them?

## 8.3 Planning Considerations

In order to address the determining issues, the Committee must consider

- Development Plan
- National Policy
- Roads and Transport
- Water, Flood Risk, Drainage, Peat and Soil
- Natural Heritage including ornithology and fisheries
- Built and Cultural Heritage
- Landscape, Seascape and Visual Impact (including Wild Land)
- Design
- Access and Recreation
- Noise and Shadow Flicker
- Telecommunications
- Aviation
- Shipping and Navigation
- Fisheries
- Construction
- Geology and Hydrology
- Socio- Economics, Recreation and Tourism
- Other material considerations

## 8.4 Development Plan

8.5 The Development Plan comprises the adopted Highland wide Local Development Plan (HwLDP) and the Caithness Local Plan 2002 (as continued in force). The principal HwLDP policy on which the application needs to be determined is Policy 67 – Renewable Energy. The other HwLDP policies listed in the policy section of this report are also relevant and the application must be assessed against these. The proposal also requires to be considered in the context of the emerging Caithness and Sutherland Local Development Plan which is currently at modified proposed plan stage

8.6 Policy 67 of the adopted Highland wide Local Development sets out that renewable energy development should be well related to the source of the primary renewable resource needed for operation, the contribution of the proposed development in meeting renewable energy targets and positive / negative effects on the local and national economy as well as all other relevant policies of the development plan and other relevant guidance. In that context the Council will support proposals where it is satisfied they are located, sited and designed such as they will not be

significantly detrimental overall individually or cumulatively with other developments having regard to the specified criteria. Such an approach is consistent with the concept of Sustainable Design (Policy 28) to achieve the right development in the right place; it is not to allow development at any cost. If the Council is satisfied that there will be no significant adverse impact then the application will accord with the Development Plan.

#### 8.7 Draft Caithness Landscape Sensitivity Study

8.8 The draft Landscape Sensitivity Appraisal for Caithness has been published for public consultation. Responses are due by 20 January 2017. This sets out landscape sensitivity and is designed as a tool for the assessment of development within the landscape. The Appraisal does state the importance of views of dramatic sea stacks and cliff faces and panoramic and extensive sea views, views across the north mainland coast and to Orkney, experience of weather, open skies and sea and coastal wildlife.

#### 8.9 Caithness and Sutherland Local Development Plan Proposed Plan (CaSPlan)

8.10 The proposed CaSPlan recognises the potential for marine renewable energy generation, particularly in the north-east of the Plan area which is identified in the Spatial Strategy for energy business expansion. This reflects the National Planning Framework 3 (NPF3) which designates the Orkney, Pentland Firth and North Caithness as an Area of Coordinated Action of marine renewables. The proposed CaSPlan aims to maximise the benefits to the local economy by adopting a more targeted, but still flexible, approach to identifying business and industrial land. It builds on the work carried out as part of the North Highland Onshore Vision (NHOV) which identified land use planning actions to support the growth of marine renewables. The Caithness and Sutherland Vision and Spatial Strategy 2030 states that the area will become an international centre of excellence for marine renewables.

8.11 Paragraph 74 of the CASPlan sets out that the Special Landscape Area boundaries have been revised for CASPlan to ensure “key designated landscape features are not severed and that distinct landscapes are preserved.” The boundaries set out in CASPlan are supported by a background paper which includes citations for the Special Landscape Areas. Policies 28, 57, 61 and 67 of the HwLDP seek to safeguard these regionally important landscapes. The impact of this development on landscape is primarily assessed in the Design, Landscape and Visual Impact (including Wild Land) section of this report.

#### 8.12 National Policy

8.13 There is strong support for renewable energy development in national policy. The Scottish Government has a target of 50% of Scotland’s electricity demand generated from renewable resources by 2015 and 100% of demand by 2020. These targets are not a cap. As the technology is well developed it is expected that the majority of this energy will come from on-shore wind farms.

- 8.14 Notwithstanding the overarching context of support, SPP recognises that the need for energy and the need to protect and enhance Scotland's natural and historic environment must be regarded as compatible goals. The planning system has a significant role in securing appropriate protection to the natural and historic environment without unreasonably restricting the potential for renewable energy. National policies highlight potential areas of conflict but also advise that detrimental effects can often be mitigated or effective planning conditions can be used to overcome potential objections to development.
- 8.15 Criteria outlined within SPP for the assessment of applications include landscape and visual impact; effects on heritage and historic environment; contribution to renewable energy targets; effect on the local and national economy and tourism and recreation interests; benefits and dis-benefits to communities; aviation and telecommunications; development with the peat environment, noise and shadow flicker; and cumulative impact.
- 8.16 Orkney, Pentland Firth and North Caithness is identified as an area of coordinated action in NPF3; a location of particular significance to the delivery of the Scottish Government's low carbon strategy. NPF3 states that the area is an internationally renowned historic and natural environment, with significant future prospects for growth and innovation. There are unparalleled opportunities for marine renewable energy development, generating significant new business and employment opportunities for the surrounding coastal and island communities.
- 8.17 Notwithstanding assessment of the specifics of the proposal, The principle of the development proposal could be seen to be compatible with Scottish Government policy and guidance and increase its overall contribution to the Government, UK and European energy targets.
- 8.18 Energy and Economics
- 8.19 The Council continues to respond positively to the Government's renewable energy agenda. Nationally onshore wind energy capacity at end of Quarter 2, 2016 was 9,618MW. Highland onshore wind energy projects in operation/under construction or approved as of January 2016 have a capacity to generate 1,991MW; approximately 20.7% of the national installed capacity. There is a further 2,116MW off-shore wind in Highland.
- 8.20 While the Council has effectively met its own 2015 target, as previously set out in the Highland Renewable Energy Strategy, it remains the case that there are areas of Highland capable of satisfactorily absorbing renewable developments without significant effects. However, equally the Council could take a more selective approach to determining which wind farm developments should be supported, consistent with national and local policy. This is not treating targets as a cap or suggesting that targets cannot be exceeded; simply recognition of the balance that is called for in both national and local policy. The HRES sets out planning requirement and guidance for offshore wind development.

## 8.21 Roads and Transport

8.22 A Traffic Statement has been submitted as part of the ES. This concludes that the proposal will not result in significant adverse environmental impacts associated with traffic and transport. Some equipment and materials will come by road, principally A836 and A9(T). There are also options for material to be sourced locally or brought to Caithness by sea, rail or road. An existing access track from the A836 to the onshore site could be upgraded, if necessary, and temporarily extended by approximately 300m to serve the onshore site. The ES outlines that during operations there will be minimal traffic associated with maintenance activities. Decommissioning traffic levels are assumed to be no higher than those associated with construction. There will be a limited amount of traffic to and from the substation for general operation and maintenance purposes. It is intended that the turbines will be assembled at a port and taken by sea to their offshore site.

Transport Planning have no objections subject to the Traffic Statement being updated prior to the commencement of development. Submission of a Construction Traffic Management Plan can be secured by condition. Transport Scotland have no objections.

## 8.23 Water, Flood Risk, Drainage and Peat and Soil

8.24 No significant effects on agriculture and soils are predicted from construction activities or temporary occupation of land. Mitigation measures are outlined in the ES. This matter has been considered by SEPA. SEPA are content with the proposals subject to conditions regarding submission of the final details of cable routes. A Construction Environmental Management Document/Plan (CEMD) requires to be produced.

8.25 Submission of detailed drainage proposals once the final onshore proposals have been agreed can be secured by condition.

## 8.26 Natural Heritage

8.27 SNH and Marine Scotland Science (MSS) have provided technical consultation responses. It is considered that SNH and MSS are appropriately placed to advise the Council on these matters. The Planning Service is in general agreement with the views expressed by SNH and MSS with regard to natural heritage and considers that subject to appropriate mitigation, the development is acceptable in this regard.

## 8.28 Coastal Processes

The ES concludes that there will be no significant impacts.

## 8.29 European Protected Species (Cetaceans)

The ES concludes that the impacts on cetaceans are likely to be minor/negligible. SNH request that a detailed entanglement monitoring and reporting schedule is provided, and support the limiting of vessel speeds and the designation of a navigations route to minimise the potential for collision.

8.30 Fish and Shellfish  
The ES concludes that the impacts on fish and shellfish is likely to be minor/negligible. SNH and Marine Scotland Science broadly agree with this in their consultation response and support the mitigation measures outlined in the ES.

8.31 Benthic Ecology  
SNH agree with the findings of the ES, that impacts on benthic features will be minor/negligible. SNH advise that a benthic survey of the cable route and mooring system be undertaken prior to installation. SNH do state in their consultation response that they consider that the cable route has not been dealt with very well in the ES, and there could be damage to Priority Marine features that we are not aware of. However, due to the scale of the development, SNH conclude that it is unlikely that there will be any significant adverse impacts in relation to relevant protected species or habitats. It is an open coastline subject to dynamic conditions, and it is likely that species and habitats are typical of those found in these environments, and are able to cope with some level of disturbance.

Marine Scotland Science have advised that they are also generally happy with the ES with regard to benthic ecology but have advised that further high resolution video and acoustic surveys should be completed to create more robust mapping.

8.32 Ornithology  
The ES concludes that impacts on bird features will be minor/negligible. SNH agree overall and advise that monitoring should be undertaken to provide data on the behaviour of bird species to the platform and aerial surveys are continued during the breeding season, and covering pre- construction, construction, and post construction to monitor sea bird densities.

8.33 Marine Mammals  
Marine Scotland Science (MSS) have provided detailed consultation comments. MSS agree with the list of impacts assessed and that due to the lack of pile driving, the development presented a much reduced risk of acoustic injury or disturbance to marine mammals. The main activities with the potential to cause disturbance are vessel traffic and cable laying. Consideration does not appear to have been given to the proximity of the development side to the Inner Hebrides and the Minches cSAC for harbour porpoise but MSS consider that it is unlikely that the that the development will have an adverse effect on the SAC. Mitigation including vessel management plan and monitoring programme is required.

SNH have undertaken a detailed Habitats Regulation Appraisal for the relevant SPAs/pSPAs. The key potential impacts of the proposal are collision risk and displacement during the operation an maintenance phase of the project . Scottish Ministers will have to carry out a Habitats Regulation Appraisal and Appropriate Assessment as required.

8.34 Commercial Fisheries  
The ES states that the site is outwith intensively fished areas. No objection has been received in relation to commercial fisheries and it is therefore considered that there are no significant impacts on fisheries assuming that mitigation measures are met.

8.35 Onshore Built and Cultural Heritage and Archaeology

8.36 The onshore interest relates to the onshore cable route. The area around and to the east of Sandside Bay contains a wide scattering of recorded archaeological features from prehistoric to more recent human activity, including scheduled monuments. Additionally it is likely that as yet unrecorded archaeological features may be present in this area. The ES notes that there is a concentration of sites along the coastal margin of the onshore site boundary and one non-designated site is located within the area of one of the cable corridor options. The ES states if cultural heritage assets cannot be avoided during excavation, then mitigation in the form of excavation or recording will be required. The ES includes provision for archaeological evaluations prior to construction. Historic Environment Scotland and the Historic Environment Team have considered the proposals and the Planning Service generally agrees with their conclusions. Subject to appropriate mitigation, it is not considered that the development will result in significant impacts on cultural heritage and archaeology.

8.37 Offshore Archaeology

No sites with statutory designation or other sites have been identified at this point.

Mitigation is identified in the ES and appropriate investigation and recording in line with the Council's standards can be secured by condition.

8.38 Design, Seascape, Landscape and Visual Amenity

8.39 In land use planning terms, the potential for seascape, landscape and visual impacts resulting from the turbines are key considerations. This aspect has been subject to detailed discussions with the Council's Landscape Officer pre application and during processing of the application.

The Caithness landscape is unique in Highland due to its particular and distinct natural landforms and settlement pattern. It is home to a range of internationally important features including the Flow Country and serves as a gateway to the Northern Isles and as a key tourist destination, including John O'Groats and Dunnet Head. It is renowned for its distinct environments; the coast with high cliffs and sandy bays, a moorland interior and settled rolling landscapes. Although offshore, the turbines would be visible for those travelling between Caithness and Sutherland. The transition between Caithness and Sutherland is significant with travellers moving between the rugged Sutherland landform and the gradual and agrarian coastal landscape setting of Caithness.

8.40 Onshore

It is not considered that the onshore elements will result in significant adverse landscape impacts given the siting and scale of these within the site area identified. Indicative details of the substation/switchgear have been provided. It is envisaged that the substation/switchgear will be of a design, scale, mass and external appearance that is in keeping with the existing Dounreay substation building i.e. a utilitarian shed with a dual pitch roof in a recessive finish and colour. It is considered that this type of design is appropriate in this location given the surrounding context of these types of buildings. It is considered that a high quality

design solution and use of appropriate finishing materials is required. A not dissimilar example of what is deemed appropriate of functional buildings of this form and scale were recently approved and constructed at Ness of Quoy for Meygen. A condition will be used to secure submission of details of exact siting, design and external appearance of the onshore elements. Options have been presented for the cable route, it is considered that the options could be accommodated without significant landscape or visual amenity issues.

#### 8.41 Offshore

The assessment is based on a design envelope, the site identified for the offshore turbines is referred to as the study area in the ES and comprises an area of 5km x 5km, which is 6km to the shore at its closest point. Given the uncertainty in the siting and scale of the turbines and platform within the study area, the worst case scenario is assessed in the ES - 2 no 6MW turbines, 201m to tip in height. The applicant has recently advised the Planning Service by email dated 1 December 2016 that a sea bed survey was completed after the application was submitted. The sea bed survey results confirm that the ground conditions in the NW quadrant of the development site is suitable for anchors. Further investigations will be undertaken in summer 2017 to identify the final location. However, the applicant has indicated informally that the platform will be located approximately 9km at its closest point to shore. The applicant also advised the Planning Service in the same email that they have selected a preferred turbine supplier and it is intended to use a 5MW turbine with a tip height of approximately 184m above sea level. No detailed information has been submitted to confirm this and as far as the Planning Service is aware, this is an informal point of clarification and therefore the application as currently presented remains based on the potential 3 turbine options within the offshore site area identified.

#### 8.42 Visual Impact

The visual receptors for the development have all been assessed in the ES. 8 viewpoints have been provided on the mainland, 1 on Orkney and 1 from the Scrabster-Stromness ferry. The Planning Service contributed that the selection of viewpoints to be included. Comments were made with regard to the position that some of the images were taken from.

8.43 The ES states that the project will introduce two very large vertical manmade features in views of the open sea beyond Sandside Bay, and it considers that the yellow platform will largely read as a recessive horizontal element merging with the sea surface. The ES notes visual context of the great majority of views is dominated by the large, expansive scale of the open sea, occasionally also including distant coastal features and hills or mountains further inland.

The ES states that the extent of the ZTV (fig 15.2) indicates a number of key characteristics:

- Relatively continuous visibility along the coastline and immediate hinterland extending from Strathy Point to Thurso Bay;
- Beyond this central zone, the configuration of the coastline has a much stronger effect, with headlands and bays frequently restricting visibility. Areas of visibility include Dunnet Head and Duncansbay Head, but there are also substantial areas which are almost entirely screened, including Thurso Bay, Loch Eriboll and Tounge Bay;

- Further inland, elevation, relief restricts theoretical visibility primarily to areas of higher ground;
  - In many inland areas, actual visibility will be significantly reduced by the extensive areas of forestry plantation
- 8.44 The ES concludes that there will be no significant effects on views experienced at viewpoints. The relatively low magnitude of change was the primary determinant in instances where the sensitivity of view points was high or very high; the predominantly long or very long separation distances and small proportion of the view affected by the project being judged as particularly important. The turbines will be lit (at the nacelle) with red flashing lights and the platforms with white flashing lights. The ES states that it has taken into account the night time effects of lighting in the worst case scenario and in the context of other sources of lighting.
- 8.45 Both the Planning Authority and SNH have considered the assessment and the potential for visual impacts of the proposal. In terms of methodology employed for the visual impact assessment, the visualisations prepared for this project do not meet the standards laid out by The Highland Council. The applicant was advised that visualisations require to be produced in accordance with the Council's standards at pre-application stage, and again during processing of the application. While the applicants have explained that the degree of haze present in some images has been unavoidable due to conditions in the area, it is considered by the Planning Service that the assessment texts fails to acknowledge this or offer explanation of how this has been accounted for in the assessment.
- 8.46 In Viewpoints 4 (Drum Holliston Car Park), 7 (Dunnet Head) and 11 (A836 east of Forss) the Planning Service considers that the montage presents the turbines in such a way that they do not reasonably represent a worst case scenario of clearly perceptible turbines with appropriate lighting.
- 8.47 The sequential route assessment also concludes that only the A9 northbound would experience an effect as high as Moderate/minor which is not deemed to be significant.
- 8.48 Of the 10 assessed viewpoints which are relevant to the Highland Council area, five have been given an impact assessment of minor/moderate which is declared to be not in accordance with the assessment matrix. Reasons are given of Magnitude of Change being considered the primary determinant and there being either limited geographical extent of change or long distance from development coupled with limited proportion of view affected. It is not clear to the Planning Service why the Magnitude of Change assessment itself does not take these factors into account giving an assessment which would accord with the matrix. With half of the selected viewpoints being on the boundary of a significant effect, it would be appropriate to look at the degree of exposure to borderline effects which are experienced by receptors within categories. These are the effects which receptors experience and are aware of as they move around the landscape. Receptors, particularly local residents, remain aware of developments when they are out of view, and may not be travelling the entirety of any numbered route. Therefore figures for sequential routes which measure the percentage of route with visibility can be misleading and tend to underestimate effects as they will actually be experienced.

- 8.49 The Planning Service considers that there are two main aspects in which the overall visual impact of this development is understated.
1. The two most more westerly viewpoints, VPs 2 (Strathy Point Car Park) and 3 (Portskerra/Melvich) and routes afford, in clear conditions, views to Orkney rather than views across open sea. Receptors can see that they are looking across a Firth or Sound, and remain aware of this even when visibility is not clear. Therefore the view assessment should take account of perception on scale of the Pentland Firth and on the landforms of Hoy beyond. This may be applicable to the more panoramic views from Viewpoint one as well where the development is not seen between Orkney and Caithness but can be seen in context of the narrowing of the Firth. This will generally increase the magnitude of change for those views and routes where the development would be seem back dropped by Orkney and establish a significant adverse impact.
  2. The impact on Sequential Routes gives percentage of route within the study area affected. For many users of routes this is not a helpful metric as they will be moving about within the Study Area, between their settlement of residence and Thurso or other workplace/service location and may have the majority of their regular experience of the route and area affected.
- 8.50 It is noted that SNH in their consultation response have also commented that the ES Technical Appendices 15.5 and 27.4 Visual Material informing the visual impact assessment is poor in quality. Primarily the clarity of rendering in the modelling of the turbines entails that the turbines in many 'closer' views are difficult to discern on the photo montages, even though in many instances the turbines would be front lit, due to the position of the development with respect to the majority of receptors. SNH also consider that the visualisations in particular the photomontages, underestimate the predicted visibility of the turbines and could be misleading. SNH consider that in viewpoints 2 (Strathy Point Car Park), 3 (Portskerra/Melvich), 4 (Drum Holliston Car Park), 5 (Sandside Head) and 6 (St Mary's Chapel Forss) from the immediate coastal setting and sequentially along the A836 (a distance of approx. 22kms between Strathy and Forss) there will be intervals with moderately significant cumulative effects. This partially relates to the higher sensitivity of the viewpoint (residents and visitors) at the viewpoints and travelling along the A836, but also the very large scale of the turbines and the uncharacteristic seascape context of the development. The A836 is on the North Coast 500 Route. In addition, there will be cumulative effects on the baseline views where there is already experience of onshore development at Forss and Bailie. Mitigating the impact is the relatively small footprint of the development which appears well contained by the much wider panorama of coast and sea. SNH consider localised impacts to be significant but largely localised. SNH have commented that they consider that the bright navigational yellow of the platform, chosen to increase visibility will visually contrast rather than merge with the sea surface.
- 8.51 The Planning Service also considers that the localised visual effects which would be experienced by receptors living, visiting and travelling in the west of the study area and as depicted in the SLVIA are significant as opposed to that stated in the ES.

- 8.52 The Planning Service considers that there is a degree to which people travelling around and through the area will be aware that there is a development both north and south of the A836. Given the undulating nature of the landform, the sense of encirclement will be muted. It is likely that the actual visibility would limit any sense of encirclement to a restricted area between Forss and Dounreay, where it won't affect a settlement. Although properties around Achreamie and Balmore may experience an increase in that effect, it is not expected that this will be to a significant degree.
- 8.53 The standard of information presented by the applicant is not in accordance with the Council's standards. In this regard, the value of these in assisting with the assessment of the proposal is considered to be questionable and it is not considered that an assessment has been presented that robustly demonstrates the acceptability of the proposals. It is accepted by the Planning Service and SNH that the visualisations are however a tool in the assessment of the application and that our assessments have also relied on the wirelines and analysis as well as site visits. In response to the concerns raised, the applicant has advised that they consider that the assessment is robust and has been undertaken in accordance with relevant guidance and methodology by professional landscape architects and assesses the worst case scenario.
- 8.54 Visual Impact Assessment Conclusion  
It is acknowledged that the SLVIA in the ES is based on a worst case scenario and it is accepted that visual assessment is a subjective matter. It is clear that the proposal will introduce a new feature to the visual influence of the northern coastline of Caithness and Sutherland. Taking into account the ES, and technical advice from the Council's Landscape Advisor and SNH, it is considered that the proposal is likely to have localised significant visual impacts.
- 8.55 Adverse visual impacts may be successfully mitigated by the reduction in height of the turbines and the siting of these in the north west of the study area, a further 3km offshore from that shown in the ES as has been mooted by the applicant. The likelihood is that the siting and reduction in height will make the visual impact acceptable is based on the following: navigational lights will appear reduced with distance; there would also be some increased visibility of the turbine base as some masking by landform may be lost due to the relative angle of view, this might have the perceived benefit in some situations of clarifying to the viewer that the turbines are offshore; a lower turbine height would create less of a visual focus and have a reduced impact on perception of scale of the channel and landforms.
- 8.56 The mitigation outlined above is the preference of the Planning Service, but as this has not been formally proposed, the assessment needs to consider the application as submitted. It is acknowledged the proposal will have significant localised impact. However given, the small footprint of the offshore site, the predominantly long or very long separation distances and small proportion of the view affected by the proposal and the containment of the development within the much wider panorama of coast and sea allow this to be viewed as acceptable in the wider landscape and seascape setting of the area. Whilst acknowledging the concerns of the Council's Landscape Officer and SNH, the Planning Service considers the localised visual impacts of the proposal to be acceptable on balance.

## 8.57 Seascape and Landscape

### Likely Impacts on Seascape Resource

The ES defines the baseline seascape consists of units at local, regional and national level. The ES concludes that given that offshore site is not attributed physically to any of these units all effects will be indirect only, resulting from visibility of the infrastructure which will affect their characteristics and qualities to varying degrees. The ES identifies significant effects on Sandside Bay and on 3 other Local Coastal Character areas which are in Orkney.

### 8.58 Likely Impact on Landscape Resource

The ES states that baseline landscape resource consist of landscape character types, which occur in discrete geographical units across the study area, in addition to the specific designated landscape areas. The effects on all these receptors will also be indirect only as the project does not physically affect any unit or area. The ES identifies there will be no significant effects on landscape character types. The ES identified that there would be significant effects on one landscape designation – the Farr Bay, Strathy and Portskerra Special Landscape Area would experience a significant effect primarily due to views from the coastline being explicitly protected in the citation and the fact that a high proportion of the coastline would be affected by views of the development.

8.59 The potential for landscape/seascape impacts has been informed by technical input from the Council's Landscape Officer and SNH. SNH consider that the location of the site at least 6km from the coastline mitigates the level of impact on coastal character areas such that complex interactions between coast and the development are largely avoided. The relatively small footprint of the offshore development contributes to this mitigation, such that the development is contained and limited in spread, reducing or avoiding intrusion on the experience of indented coastline and series of bays. In contrast, the vertical scale of the turbines, located on a yellow platform heightens visibility as an unfamiliar and uncharacteristic feature in the Pentland Firth waters. However, onshore turbines (of a similar, albeit smaller 3 bladed design) exist within the landscape and immediate coastal and landscape proximity of the site.

8.60 SNH consider that there will be moderate significant impacts (which include cumulative impacts) on local coastal character, in Landscape Coastal Character Areas 39 (Melvich Bay to Sandside Bay), 40 (Sandside Bay) and 41 (Sandside Bay to Ness of Litter), which partially relates to the uncharacteristic context of the seascape site and scale of the turbines. However this is mitigated by the lower sensitivity of the coastal character and the context of the type of wind and wider energy production infrastructure and turbines within the area, including the overhead pylon lines which terminate at the Dounreay facility. Immediately west of this area, where there is potential for impacts on character along to Strathy Point (and further west), the coastal and landscape character increases in wildness qualities, with a more elevated and far less managed land cover, more open upland moorland and a rugged rocky coastline (LCCAs 35 to 37 Strathy Point, Strathy Bay, Strathy Bay to Melvich Bay). The level of sensitivity of this landscape increases markedly. Whilst the distance between the character areas and development starts to increase, where the orientation of coast incorporates the

seascape of the site, the turbines will impact potentially significantly. In particular there are likely to be cumulative impacts where the proposal will extend the experience of turbines as a feature in the coastal character areas (in addition to the existing onshore turbines at Forss and Baillie). Contrary to the ES, SNH consider there to be potential for moderate and therefore significant effects on sections of coastal character extending between LCCAs 35 to 41 (Strathy Point to Ness of Litter). SNH consider these impacts to be largely localised. The magnitude of change is increased where the proposal introduces additional or new areas of change and experience of turbines into the coastal character further west.

8.61 With regard to the LCCA assessments, the Planning Service agrees with SNH and also considers that the LCCA assessments generally do not account for impacts which arise in perception of the LCCA from points outwith the LCCA. This is particularly significant for LCCA 35 Strathy Point where the character of the cliffs and elevated headlands is mostly seen from outside the LCCA. Where the offshore development is seen in association with Strathy Point, the cliffs and headlands may seem diminished in perceived scale by comparison with the development, making this a significant impact.

8.62 Cumulative Impacts on Seascape, Landscape and Visual Impacts

The ES lists projects to be included in the cumulative assessment and projects taking into account are also shown on figure no. 15.10. Figure 15.10 omits a number of wind farm developments within the identified study area including Bettyhill, Strathy North, Drum Holliston, Forss, Baillie, Causeymire and Limekilns. The omission of these from figure 15.10 is misleading. The Beatrice and Moray offshore developments are not covered by the assessment as these are outwith the 60km study area identified by the applicant.

8.63 The ES concludes that there are no significant cumulative effects on LCCAs or on NSAs, Gardens and Designed Landscapes, Wild Land.

The ES concludes that there will be significant cumulative effects on Farr Bay, Strathy and Portskerra Special Landscape Area

The ES concludes that the A9 north bound is the only route assessed as experiencing moderate/minor effect. The assessment identified there would be no significant cumulative effects on the route.

8.64 SNH have commented that whilst they support the adoption of a proportional approach to the assessment of cumulative effects, they disagree with the first 'rule' which has been applied (ES para 15.143), where the cumulative assessment for seascape receptors (LCCAs) includes only the offshore developments. By their very nature, LCCAs focus on the land / sea interface and comprise both terrestrial and maritime components in their character. As such, to rule out consideration of wind development in planning which are proposed along the seaboard within or adjacent to the LCCAs entails that the cumulative assessment is incomplete and results of assessment therefore misleading. Typically 'rules' of this nature which step away from conventional assessment guidance should be agreed with statutory consultees in advance. SNH consider however that the moderate significant landscape, visual and coastal effects predicated are likely to be contained between

Strathy Point and Litter Ness. As such potential cumulative significant effects are likely to reflect this analysis and pattern of effects, and are unlikely to trigger issues of national interest to SNH. The Planning Authority agrees that there will be moderate significant, visual and coastal effects within a localised area.

8.65 Landscape and Seascape Impacts Conclusion

There are some elements where the assessment minimises the landscape and seascape impacts. The most significant of these is on the Special Landscape Area at Farr Bay, Strathy and Portskerra as this is on the most 'limited resource'. The impacts on the Landscape Character and Local Coastal Character are limited to relatively small areas of a character type. Based on judgement, whilst the landscape and seascape effects appear to be underestimated in the ES, these are judged to be acceptable on the basis that these are relatively limited in extent. Whilst there are some impacts on perception of scale of the landscape, the coastal and landscape characters are generally extensive enough that this effect does not significantly compromise the defining characteristics of the characters as a whole.

8.66 National Scenic Areas

There are 3 NSAs within or partially within the extended 60km radius study area: Hoy (Orkney) and West Mainland; North West Sutherland; Kyle of Tongue. Figure 15.7 Combined ZTV and Landscape Designation illustrates visibility along the north coastline of the Kyle of Tongue NSA and the western coastline of the Hoy and West Mainland NSA. SNH consider that the relatively small footprint of the development and distance from NSAs mitigates significant effects.

8.67 Wild Land Areas

The site is not within a wild land area and therefore para 215 of SPP does not apply, but the general test considering the effects on wild land as set out in para 169 of SPP and reflected in Policy 67 of the HwLDP is relevant. The introduction of turbines and other infrastructure into views from the wild land area and the introduction of a dominant contemporary landuse visible from the wild land area affecting the perceptual qualities of wildness. SNH agree with the assessment in the ES assessment of effect, that for the majority of wild land areas, within the core and extended study area, that there would be minor or negligible impact. For Wild Land Area 39 East Halladale Flows, at approximately 10km to the south of the site, there is predicated visibility within the northern extent. However, SNH agree with the ES that the visibility of turbines is unlikely to be significant and not affect the integrity of the Wild Land Area. On balance, having considered SNH's assessment and the ES, it is agreed that there would be no impact on the physical or perceptual qualities of the wild land.

8.68 Access and Recreation

8.69 The location of the turbine platform has no direct impact on land based public recreational access. The location of the proposed cable landfall at Sandside Bay is a local well used recreational area and there are two core paths providing access to the Bay from Reay. There is expected to be limited impact on recreational access during operation. Maintenance of access during construction can be secured by condition.

The ES includes mitigation including maintenance of passage. Details can be secured by condition. It is expected that during operation, the corridor for the underground cable and landfall will revert to land where access rights are accessible.

8.70 Other Users of the Marine Environment

No significant impacts to other users of the marine environment to their associated activities (marine renewable energy, military and electrical cable installation) has been identified by the ES. Consultation responses have been provided by relevant parties.

8.71 Noise, Shadow Flicker and Amenity

8.72 Offshore

It is not considered that the turbines will result in unacceptable noise or shadow flicker issues. As a safeguard, upper noise limits can be secured by condition.

Onshore

No residential or commercial properties would be significantly affected by the construction of the onshore works. Upper noise limits for the operation of the substation/switchgear can be secured by condition. Construction will be controlled under the Control of Pollution Act 1974 (as amended).

8.73 Telecommunications

8.74 No concerns have been raised in relation to potential interference with radio / television networks in the locality. A condition should nonetheless be sought to secure a scheme of mitigation should an issue arise.

8.75 Aviation

8.76 The aviation industry and provision of Air Navigation Services are regulated through extensive legislation out with the planning system. The proposal has been subject to consultation with technical bodies. There are no objections from the technical bodies. Mitigation is identified in the ES inclusion notification to relevant parties and lighting. This can be controlled by condition.

8.77 Shipping and Navigation

8.78 A Marine Safety Navigational Risk Assessment has been produced. The assessment identified the area as being of relatively low vessel traffic compared to the wider Pentland Firth area. Mitigation has been identified including applying standard industry practice and relevant consultees have provided responses and it is considered that the development is acceptable in this regard subject to appropriate mitigation.

## 8.79 Fisheries

8.80 The ES identifies four key fisheries in relation to the proposal. No significant impacts are identified arising from the proposal in terms of loss of fishing grounds, obstruction, displacement or indirect impacts due to low intensity of activity and availability of fishing grounds in the wider sea. Potential moderate impacts are identified to inshore creel fishery due to loss of access to fishing grounds, localised nature of their fishing activity and greater sensitivity to change. Potential impacts were identified from the risk of gear damage as a result of snagging gear on infrastructure, but mitigation measures have been identified in terms of application and monitoring of operational safety zone. A Fisheries Management Plan and Fisheries Liaison Officer are identified as mitigation. The proposal has been subject to consultation with relevant fisheries bodies.

## 8.81 Construction - Air quality

8.82 Onshore construction activities could give rise to some local air quality impacts associated with dust. Given the location, and distance from residential properties, it is not considered to be a significant issue. The mitigation outlined in the ES is appropriate. Submission of a Construction Environmental Management Plan is conditioned

## 8.83 Geology and Hydrology

8.84 There are no geologically designated sites within the site boundary for the onshore works. Sandside SSSI is location just over 800m from the SW edge of the cable corridor area. Whilst this is not designated specifically for its geological interests the sand dunes present are fundamental plant species. The ES states that route of the cable duct and associated infrastructure requires to be designed to avoid these. If this is not possible then horizontal directional drilling should be the preferred method of installing the cable duct below the dunes.

Other than a field drain, there are no watercourses present within the site boundary. The nearest watercourses are the Burn of Isauld, approx 800m from the SW boundary of the site and the Dounreay burn which flows in a NW direction approx. 350m to the NE of the boundary.

No private water supplies have been identified in the vicinity of the site.

The ES identified site is at a very limited risk of flooding. It is considered appropriate to condition submission of Flood Risk Assessment once the onshore sites are fully selected.

No significant residual impacts are identified for pollution of watercourses and disruption to groundwater flow. Mitigation measures are identified, following the requirements of the Construction Environmental Management Documents for the project.

A flood and drainage impact assessment and strategy will be developed for the onshore development prior to construction beginning, submission of this can be secured by condition.

8.85 Socio-Economics, Recreation and Tourism

8.86 The key considerations for this are where the construction activity will be based, where the commissioning of the floating platform occurs and where the operations and maintenance base is located. Locations for these activities will be identified during the detailed design phase. Socio-economic impacts were assessed in the ES are largely positive with direct and indirect effects such as job creation, value added and income generated in the economy. The key impact being the potential creation of local employment and business opportunities. The actual number of jobs that will be created will not be fully known until the plans are more fully developed. It is estimated that around 240 construction jobs have the potential to be created. The operation and management phase is estimated to create around 11 jobs for the 25 year lifespan of the project.

8.87 The developer issued a press release on 6 January 2017 stating that the works will be carried out by Global Energy Group at Nigg Energy Park and that they have entered into an agreement with Scrabster Port for servicing. The press release states that the proposal will create 7 full time jobs and support may other jobs locally ranging from the Harbour Authority itself, through to fuel suppliers, craneage and other supply chain activities. The proposal has the potential to power up to 8,000 homes.

8.88 The ES considers the potential impacts on tourism where visitors are deterred from visiting due to disruption during construction and decommissioning; industrialisation of the local seascape during construction works and direct impact to tourism whereby visitors are attracted or deterred from visiting the area due to the presence of the windfarm. The ES considers that impacts on tourism will be negligible due to the small scale of the project and the temporary nature of the construction impacts.

8.89 Tourism is an important sector for the Highland economy and the North Coast 500 route is a key part of this. To date no studies have blamed the existence of wind farms as a reason for a decline in tourist numbers. Although it may be that some will be deterred from returning to the area, given the range of activities pursued by visitors to Caithness and Sutherland it is not considered that the proposal would be significantly detrimental. While sea views will be affected, the character of the area, its open skies and broad horizons, will remain. It is also possible that a development such as this could become an attraction in its own right.

8.90 Other Material Considerations

8.91 In line with Council policy and practice, community benefit considerations are undertaken as a separate exercise and generally parallel to the planning process.

8.92 All material considerations raised by consultees/third parties have been considered in this report.

8.93 There are no other relevant material factors highlighted within representations for consideration of this application.

8.94 **Matters to be secured by Section 75 Agreement**

8.95 None

9.0 **CONCLUSION**

9.1 The Scottish Government gives considerable commitment to renewable energy and encourages planning authorities to support the development of wind farms where they can operate successfully and where concerns can be satisfactorily addressed. Highland has been successful in accepting many renewable energy projects in recent years and many more applications are in the planning process.

9.2 The application has not raised any fundamental objections from those statutory agencies involved with local infrastructural networks (road, air, telecommunications, etc.) and environmental resources (water, soils, peat, etc.). Five objections have been received from third parties. The adoption of good construction practices through a Construction Environment Management Document and the implementation of mitigation measures identified in the ES will minimise impacts.

9.3 The development has the potential to result in socio-economic benefits to the area through construction and to make a contribution to meeting renewable energy targets. Policy 67 - Renewable Energy Developments highlights the balance that the Council has to strike between the delivery of proposals which make a contribution towards meeting the renewable energy generation targets and the protection of natural resources which contribute to the overall character of the Highland area.

9.4 The Planning Service has reviewed the information submitted and consultation responses and representations received. The principal land use planning issues are landscape, seascape and visual impact and the applicant was advised that these would be the key issues at pre-application stage and that these should be fully addressed in the ES. Any development of this type will inevitably have some visual impacts and impacts on the landscape and seascape. As outlined in this report, it is the conclusion of the Planning Service that the landscape and seascape effects depicted in the ES are understated, but considered acceptable as these are judged to be relatively limited in extent. The visual impacts outlined in the ES is based on a realistic worst case scenario, with the largest of the turbines at the closest point to the shore. Concerns have been raised about the significance of visual impacts. The Planning Service considers that siting the turbines further offshore, within the NW quadrant of the site and reducing the height of the turbines would further reduce our concerns. The mitigation outlined is the preference of the Planning Service, but the proposal requires to be considered as submitted. Whilst it is acknowledged the proposal will have significant localised impact, given, the

small footprint of the offshore site, the predominantly long or very long separation distances and small proportion of the view affected and the containment of the development within the much wider panorama of coast and sea allow this to be viewed as acceptable in the wider landscape and seascape setting of the area. Whilst acknowledging the concerns of third parties, the Council's Landscape Officer and SNH, the Planning Service considers the localised visual impacts of the proposal to be acceptable on balance.

9.5 The Highland Council has determined its response to this application against the policies set out in the Development Plan, principally Policy 67 of the Highland-wide Local Development Plan with its tests which are expanded upon with the Onshore Wind Energy Supplementary Guidance. This policy also reflects policy tests of other policies in the plan, for example Policy 28. This policy also draws in the range of subject specific policies as also contained within the HwLDP as listed in section 6.2 above. Given the above analysis the application would, on balance, accord with the Development Plan.

9.6 Schedule 9 of the Electricity Act requires sets out what an applicant shall do in relation of the preservation of amenity. It is considered that the proposal has had regard to the desirability of preserving natural beauty and is considered to have mitigated the effects of the development on the natural beauty of the countryside. However, in considering these matters it is not consider that having "regard to" and "in doing what he reasonably can" to mitigate these effects mean that the effects of the development are acceptable.

9.7 It is recommended that the Council **raise no objection** to the proposal subject to the mitigation measures identified in the ES and the following deemed planning permission conditions and reasons:

1 This deemed planning permission shall expire after a period of 30 years from the date when electricity is first exported from any of the approved wind turbines to the electricity grid network (the "First Export Date"). Upon the expiration of a period of 25 years from the First Export Date, the wind turbines and all associated onshore elements shall be decommissioned and removed from the site, with decommissioning and restoration works undertaken in accordance with the terms of Condition 3 of this permission. Written confirmation of the First Export Date shall be submitted in writing to the Planning Authority within one month of the First Export Date.

Reason: Wind turbines have a projected lifespan of 25 years, after which their condition is likely to be such that they require to be replaced, both in terms of technical and environmental considerations. The onshore elements are granted in conjunction with the wind turbines. This limited consent period also enables a review and, if required, re-assessment to be made of the environmental impacts of the development and the success, or otherwise, of species protection, habitat management and other offered mitigation measures. The 30 year cessation date allows for a 5 year period to complete commissioning and site restoration work.

2 For the avoidance of doubt the development shall be constructed and operated in accordance with the provisions of the application, the submitted plans, and the Environmental Statement, including Supplementary Environmental Information.

Reason: In order to clarify the terms of permission.

3 No development or works (excluding preliminary ground investigation which shall be permitted) shall commence until an Interim Decommissioning and Restoration Plan (IDRP) for the site has been submitted to, and approved in writing by, the Planning Authority in consultation with SNH and SEPA . Thereafter:

- i. not later than 3 years prior to the decommissioning of the Development, the IDRP shall be reviewed by the Developer, to ensure that the IRDP reflects best practice in decommissioning prevailing at the time and ensures that site specific conditions, identified during construction of the site, and subsequent operation and monitoring of the Development are given due consideration. A copy shall be submitted to the Planning Authority for its written approval, in consultation with SNH and SEPA; and
- ii. not later than 12 months prior to the decommissioning of the Development, a detailed Decommissioning and Restoration Plan (DRP), based upon the principles of the approved interim plan, shall be submitted to, and approved in writing by, the Planning Authority, in consultation with SNH and SEPA.

The IDRP and subsequent DRP shall include, unless otherwise agreed in writing with the Planning Authority and in accordance with legislative requirements and published best practice at time of decommissioning details about the removal of all elements of the Development, relevant access tracks and all cabling, including where necessary details of (a) justification for retention of any relevant elements of the Development, b) the treatment of disturbed ground surfaces, c) management and timing of the works, d) environmental management provisions and e) a traffic management plan to address any traffic impact issues during the decommissioning period. The DRP shall be implemented as approved. In the event that the Final DPR is not approved by The Highland Council in advance of the decommissioning, unless otherwise agreed by the Planning Authority the Interim IDRP shall be implemented.

Reason: To ensure that all wind turbines and associated development are removed from site should the wind farm become largely redundant; in the interests of safety, amenity and environmental protection.

4 The Wind Farm Operator shall, at all times after the First Export Date, record information regarding the monthly supply of electricity to the national grid from the site as a whole and electricity generated by each individual turbine within the development and retain the information for a period of at least 12 months. The information shall be made available to the Planning Authority within one month of any request by them. In the event that:

- i. any wind turbine installed and commissioned fails to supply electricity on a commercial basis to the grid for a continuous period of 6 months, then unless otherwise agreed, the wind turbine, along with any ancillary equipment, fixtures and fittings not required in connection with retained turbines, shall, within 3 months of the end of the said continuous 6 month period, be dismantled and removed from the site and the surrounding land fully reinstated in accordance with this condition; or
- ii. the wind farm fails to supply electricity on a commercial basis to the grid from 50% or more of the wind turbines installed and commissioned and for a continuous period of 12 months, then the Wind Farm Operator must notify the Planning Authority in writing immediately. Thereafter, the Planning Authority may direct in writing that the wind farm shall be decommissioned and the application site reinstated in accordance with this condition. For the avoidance of doubt, in making a direction under this condition, the Planning Authority shall have due regard to the circumstances surrounding the failure to generate and shall only do so following discussion with the Wind Farm Operator and such other parties as they consider appropriate.

All decommissioning and reinstatement work required by this condition shall be carried out in accordance with the approved detailed Decommissioning and Reinstatement Plan (DRP), or, should the detailed DRP not have been approved at that stage, other decommissioning and reinstatement measures, based upon the principles of the approved draft DRP, as may be specified in writing by the Planning Authority.

Reason: To ensure that any redundant wind turbine is removed from site, in the interests of safety, amenity and environmental protection.

5

No development shall commence full details of the proposed wind turbines have been submitted to, and approved in writing by, the Planning Authority. These details shall include:

- i. The make, model, design, power rating and sound power levels of the turbines to be used;
- ii. Maximum rotor tip height (above LAT)
- iii. Maximum rotor diameter
- iv. Maximum hub height (above LAT)
- v. Co-ordinates for siting of platform and turbine within the study area
- vi. Design of the turbines and platform
- vii. The external colour and/or finish of the turbines to be used (incl. towers, nacelles and blades) which should be non-reflective pale grey semi-matt.

Thereafter, development shall progress in accordance with these approved details and, with reference to part ii above, the turbines shall be maintained in the approved colour, free from external rust, staining or discolouration, until such time as the wind farm is decommissioned. For the avoidance of doubt, all wind turbine blades shall rotate in the same direction.

Reason: To ensure that the turbines chosen and siting are suitable in terms of visual, landscape, noise and environmental considerations.

- 6 Notwithstanding the provisions of the Town and Country Planning (Control of Advertisements) (Scotland) Regulations 1984 (as amended), and unless there is a demonstrable health and safety or operational reason, none of the wind turbines substation buildings / enclosures or above ground fixed plant shall display any name, logo, sign or other advertisement without express advertisement consent having been granted on application to the Planning Authority.

Reason: To ensure that the turbines are not used for advertising, in the interests of visual amenity.

- 7 No development shall commence until full details of the location, layout, external appearance, dimensions and surface materials of all control and/or substation buildings, welfare facilities, compounds and parking areas, as well as any fencing, walls, landscaping, screening, bunding paths and any other ancillary elements of the development, have been submitted to, and approved in writing by, the Planning Authority (in consultation with SEPA and SNH, as necessary). Thereafter, development shall progress in accordance with these approved details. For the avoidance of doubt, details relating to the control and substation buildings shall include additional architectural design, carried out by suitably qualified and experienced people, to ensure that they are sensitively scaled, sited and designed.

Reason: To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape noise and environmental impact considerations.

- 8 No development shall commence until full details of the location, layout, route, construction/burial method of the cable route between the offshore turbine platform and the onshore substation, including cable landfall have been submitted to, and approved in writing by, the Planning Authority (in consultation with SEPA and SNH, as necessary). This shall include justification in relation to the disturbance of any radioactive contamination. Thereafter, development shall progress in accordance with these approved details.

Reason: To ensure that all ancillary elements of the development are acceptable in terms of visual, landscape noise and environmental impact considerations.

- 9 No development shall commence until a scheme of aviation lighting is submitted to, and approved in writing by, the Planning Authority after consultation with the Ministry of Defence. Thereafter the approved scheme of aviation lighting shall be fully implemented on site. The Company shall provide both the Ministry of Defence

and the Defence Geographic Centre (AIS Information Centre) with a statement, copied to the Planning Authority and Highland and Islands Airports Limited, containing the following information:

- a. The date of commencement of the development;
- b. The exact position of the wind turbine towers in latitude and longitude;
- c. A description of all structures over 300 feet high;
- d. The maximum extension height of all construction equipment;
- e. The height above ground level of the tallest structure; and
- f. Details of an infra red aviation lighting scheme, unless otherwise required, as agreed with the MOD, HIAL and other aviation interests and the Planning Authority.

Reason: To ensure that the turbines present no air safety risk and in a manner that is acceptable to local visual impact considerations.

10 No development shall commence until an updated Construction Traffic Management Plan including full details of the mitigation/improvement measures required on the routes to and from the site has been submitted to and approved in writing by the Planning Authority in consultation with the Roads Authority. The Traffic Management Plan shall include:

- . A risk assessment for transportation during daylight hours and hours of darkness.
- . Proposed traffic management and mitigation measures on the access routes to site. Measures such as temporary speed limits, suitable temporary signage, road markings and the use of speed activated signs should be considered.
- . Proposed measures to mitigate the impact of general construction traffic on the local road network following detailed assessment of relevant roads.
- . A procedure for the regular monitoring of road conditions and the implementation of any remedial works required during the construction period.
- . Details of appropriate upgrading works at the junction of the site access and the public road. Such works will include suitable drainage measures, improved geometry and construction, measures to protect the public road and the provision and maintenance of appropriate visibility splays.
- . Details of appropriate traffic management which shall be established and maintained at the site access for the duration of the construction period. Full details shall be submitted for the prior approval of Highland Council, as roads authority.
- . Measures to ensure that all affected public roads are kept free of mud and debris arising from the development
- . A concluded agreement in accordance with Section 96 of the Roads (Scotland) Act 1984 under which the developer is responsible for the repair of any damage to the public road network that can reasonably be attributed to construction and decommissioning related traffic. As part of this agreement, pre-start and post construction road condition surveys shall be carried out by the developer, to the

satisfaction of the Roads Authority(s). The agreement shall take account of any neighbouring developments that might progress concurrent with the works proposed and provide, if necessary, a mechanism for apportionment of costs between respective developers.

The above agreement shall include joint before and after road condition surveys (developer and Highland Council) and regular monitoring of traffic levels and road conditions during the construction phase of the development. Any works required within or alongside Council maintained roads will require the prior written approval of Highland Council, as roads authority, through either a Road Opening Permit or Road Construction Consent process, as deemed appropriate by the roads authority.

Reason : In the interests of road safety. Traffic movements associated with the development are not yet fully understood in terms of routes and numbers and as such require further consideration.

11 No development shall commence until a detailed Outdoor Access Plan of public access across the site (as existing, during construction, during operation and during decommissioning) has been submitted to, and approved in writing by, the Planning Authority. The plan shall include details showing:

- i. All existing access points, paths, core paths, tracks, rights of way and other routes (whether on land or inland water), and any areas currently outwith or excluded from statutory access rights under Part One of the Land Reform (Scotland) Act 2003, within and adjacent to the application site;
- ii. Any areas proposed for exclusion from statutory access rights, for reasons of privacy, disturbance or effect on curtilage related to proposed buildings or structures;
- iii. All proposed paths, tracks and other routes for use by walkers, riders, cyclists, canoeists, all-abilities users, etc. and any other relevant outdoor access enhancement (including construction specifications, signage, information leaflets, proposals for on-going maintenance etc.);
- iv. Any diversion of paths, tracks or other routes (whether on land or inland water), temporary or permanent, proposed as part of the development (including details of mitigation measures, diversion works, duration and signage).

Reason: - To ensure public access to the outdoors is not unnecessarily impeded as a result of this development.

12 No development shall commence until a finalised Construction Environmental Management Document is submitted to and agreed in writing by the Planning Authority in consultation with SNH and SEPA. The document shall include provision for :

- An updated Schedule of Mitigation (SM).
- Processes to control / action changes from the agreed Schedule of Mitigation.
- The following specific Construction and Environmental Management Plans (CEMP):
  - i. Peat Management Plan – to include details of any peat stripping, excavation, storage and reuse of material in accordance with best practice advice published by SEPA and SNH. This should for example highlight how sensitive peat areas are to be marked out on-site to prevent any vehicle causing inadvertent damage.
  - ii. Water Quality Management Plan - highlighting drainage provisions including monitoring / maintenance regimes, any water crossings designed to 1 in 200 year event plus 20% for climate change, surface water drainage management (SUDs) and development and storage of material buffers (50m minimum) from water features, unless otherwise agreed in writing by SEPA and The Highland Council's Flood Risk Management Team;
  - iii. Public and Private Water Supply Protection Measures;
  - iv. Pollution Prevention Plan and Construction Method Statement
  - v. Site Waste Management Plan
  - vi. Construction and Decommissioning Method Statement
  - vii. Provision of wheel washing facilities.
  - viii. Construction Noise Mitigation Plan.
  - ix. Construction Vessel Management Plan
  - x. Species Protection Plan advancing
    - a. The pre construction survey for legally protected species is carried out at an appropriate time of year for the species, at a maximum of 12 months preceding commencement of construction, and that a watching brief is then implemented by the Ecological Clerk of Works (ECOW) during construction. The species that should be surveyed for include, but are not limited to, breeding birds, wild cat, otter and water vole. The area that is surveyed should include all areas directly affected by construction plus an appropriate buffer to identify any species within disturbance distance of construction activity and to allow for any micro-siting needs
    - b. Provision of a communication plan to ensure all contractors are aware of the possible presence of protected species frequenting the site and the laws relating to their protection;
    - c. The notification and a stop the job commitment requirements should protected species be encountered

- Details of the appointment of an appropriately qualified Environmental Clerk of Works with roles and responsibilities which shall include but not necessarily be limited to:
  - i. Providing training to the developer and contractors on their responsibilities to ensure that work is carried out in strict accordance with environmental protection requirements;
  - ii. Monitoring compliance with all environmental and mitigation works and working practices approved under this consent;
  - iii. Advising the developer on adequate protection for environmental and nature conservation interests within, and adjacent to, the application site;
  - iv. Directing the placement of the development (including any micro-siting, as permitted by the terms of this consent) and the avoidance of sensitive features; and
  - v. The power to call a halt to development on site where environmental considerations warrant such action.
  
- Details of any other methods of monitoring, auditing, reporting and communication of environmental management on site and with the client, Planning Authority and other relevant parties.
  
- Statement of any additional persons responsible for 'stopping the job / activity' if in potential breach of a mitigation or legislation occurs.

Unless otherwise agreed in writing by the Planning Authority the development shall proceed in accordance with the agreed CEMD.

Reason: To protect the environment from the construction and operation of the development and secure final detailed information on the delivery of all on-site mitigation projects.

13

No development shall commence until a Project Environmental Monitoring Programme (PEMP) has been submitted to and approved in writing by the Planning Authority in consultation with relevant consultees including SNH. This shall agree the environmental interests to be monitored and appropriate monitoring methodologies. The monitoring programme shall cover construction and operational periods of development. The PEMP shall be regularly reviewed, to a timescale to be agreed. The agreed monitoring will thereafter be implemented and the data collected will be reported on and made publicly available. Detailed entanglement monitoring and reporting schedule shall be provided as part of the PEMP in order to mitigate and monitor entanglement for this demonstrator proposal

Reason: In the interests of safeguarding the natural environment.

14 No development shall commence until a programme for operations and maintenance (OandM) has been submitted to and approved in writing by the Planning Authority in consultation with relevant consultees including SNH. This shall take account of environmental sensitivities which may influence the timing of OandM activities. It shall set out OandM vessel requirements and vessel management. The OandM Environmental Management Plan shall detail how each and all contractors and sub-contractors will be made aware of environmental sensitivities, what requirements they are expected to adhere to and how chains of command will work during OandM activity. The approved OandM programme shall be implemented as approved, and reviewed regularly.

Reason: In the interests of safeguarding the natural environment.

15 No development shall commence until full details of all surface water drainage provision within the application site (which should accord with the principles of Sustainable Urban Drainage Systems (SUDS) and be designed to the standards outlined in Sewers for Scotland Second Edition, or any superseding guidance prevailing at the time) have been submitted to, and approved in writing by, the Planning Authority. Thereafter, only the approved details shall be implemented and all surface water drainage provision shall be completed prior to the first occupation of any of the development.

Reason: To ensure that surface water drainage is provided timeously and complies with the principles of SUDS; in order to protect the water environment.

The rating level of noise imissions from the wind farm, including the application of any tonal penalty when determined in accordance with best practice as set out in ETSU-R-97 and the Institute of Acoustics Good Practice Guide and Supplementary Guidance Notes, shall not exceed 35dB LA90 10 minute at wind speeds up to and including 10m/s at the curtilage of any dwelling which is lawfully existing or has planning permission at the date of this permission. Noise limits expressed in dB LA90, 10 minute as a function of the standardised wind speed (m/s) at 10 metre height as determined at the turbine location averaged over 10 minute periods.

i. Within 21 days from receipt of a written request from the Local Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant approved by the Local Planning Authority to assess the level of noise imissions from the wind farm at the complainant's property. The written request from the Local Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Local Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.

ii. The assessment of the rating level of noise imissions shall be undertaken by an independent noise consultant in accordance with best practice as set out in ETSU-R-97 and the Institute of Acoustics Good Practice Guide and Supplementary Guidance Notes over the relevant range of conditions.

iii. The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment of the rating level of noise immissions within 2 months of the date of the written request of the Local Planning Authority. All data collected for the purposes of undertaking the compliance measurements shall be made available to the Planning Authority on request.

iv. Time periods in 2 and 4 above may only be extended following written agreement by the Planning Authority.

v. If the assessment concludes that noise from the wind farm is not complying with the limit stipulated in condition 1, the wind farm shall cease operation immediately until a mitigation scheme, approved in writing by the Planning Authority, is implemented.

Reason: To ensure that, following a complaint, noise levels can be measured to assess whether or not the predicted noise levels set out within the supporting noise assessment have been breached, and where excessive noise is recorded, suitable mitigation are undertaken.

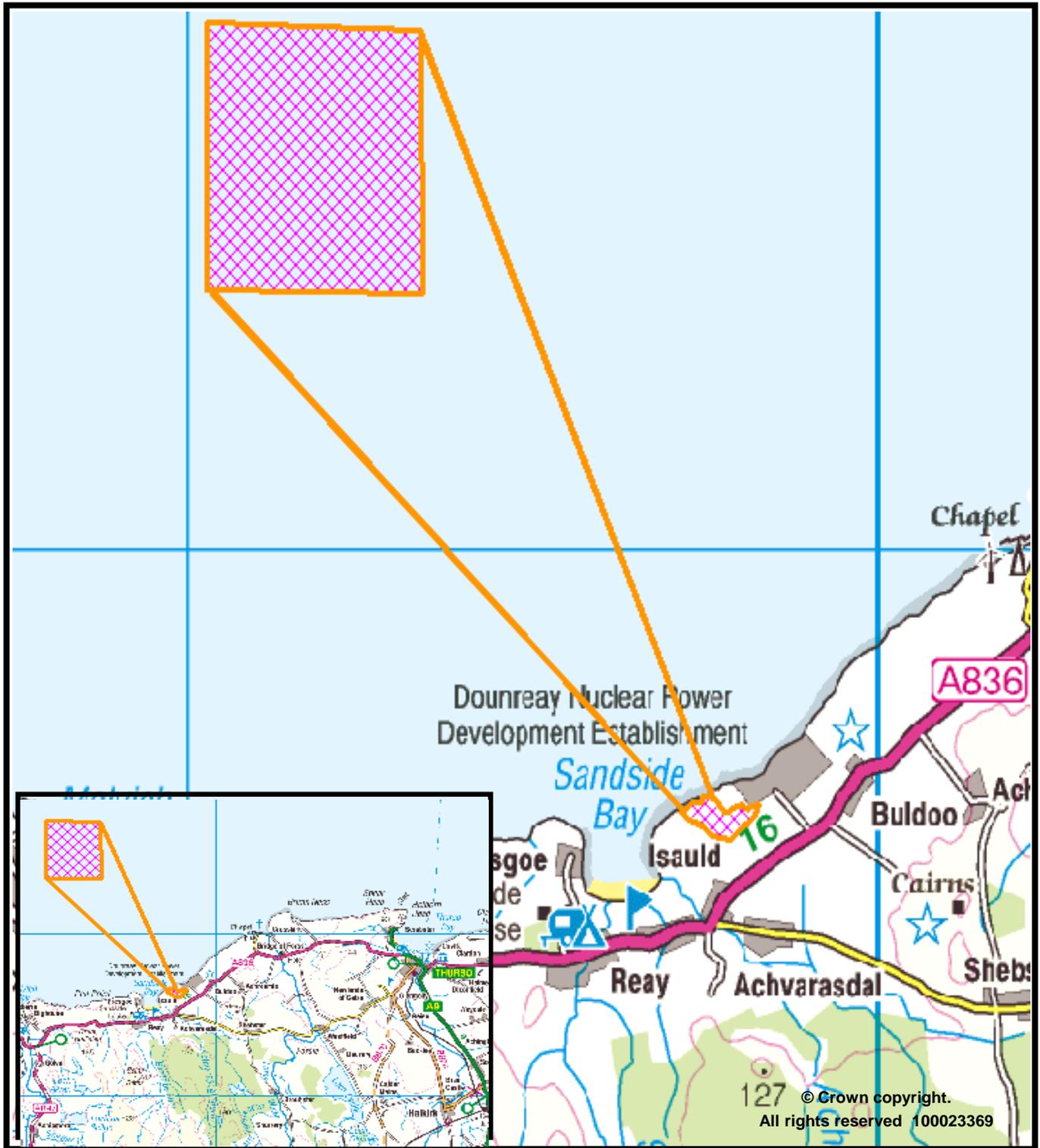
- 16 Noise arising from within the operational land of the sub-station when measured and/or calculated as an Leq, 5min, in the 100Hz one third octave frequency band must not exceed 30 dB, at noise sensitive premises; and  
The Rating Level of noise arising from the use of plant, machinery or equipment installed or operated within the operational land of the sub-station, hereby permitted, must not exceed the current background noise levels at noise sensitive premises. The Rating Level should be calculated in accordance with BS 4142: 2014: Methods for rating and assessing industrial and commercial sound.

Reason: To ensure that, following a complaint, noise levels can be measured to assess whether or not the predicted noise levels set out within the supporting noise assessment have been breached, and where excessive noise is recorded, suitable mitigation are undertaken.

- 17 No development or work (including site clearance) shall commence until a programme of work for the evaluation, preservation and recording of any archaeological and historic features affected by the proposed development/work, including a timetable for investigation, all in accordance with the attached specification, has been submitted to, and approved in writing by, the Planning Authority. The approved programme shall be implemented in accordance with the agreed timetable for investigation.

Reason: In order to protect the archaeological and historic interest of the site.

Signature: Dafydd Jones  
Designation: Area Planning Manager - North  
Author: Emma Forbes  
Background Papers: Documents referred to in report and in case file.  
Relevant Plans: Plan 1 – Study Area – Offshore  
Plan 2 – Detailed Study Area – Offshore  
Plan 3 – Site Plan – Onshore  
Plan 4 – Detailed Site Plan – Onshore  
Plan 5 – Turbine Dimensions  
Plan 6 – Substation Indicative Details

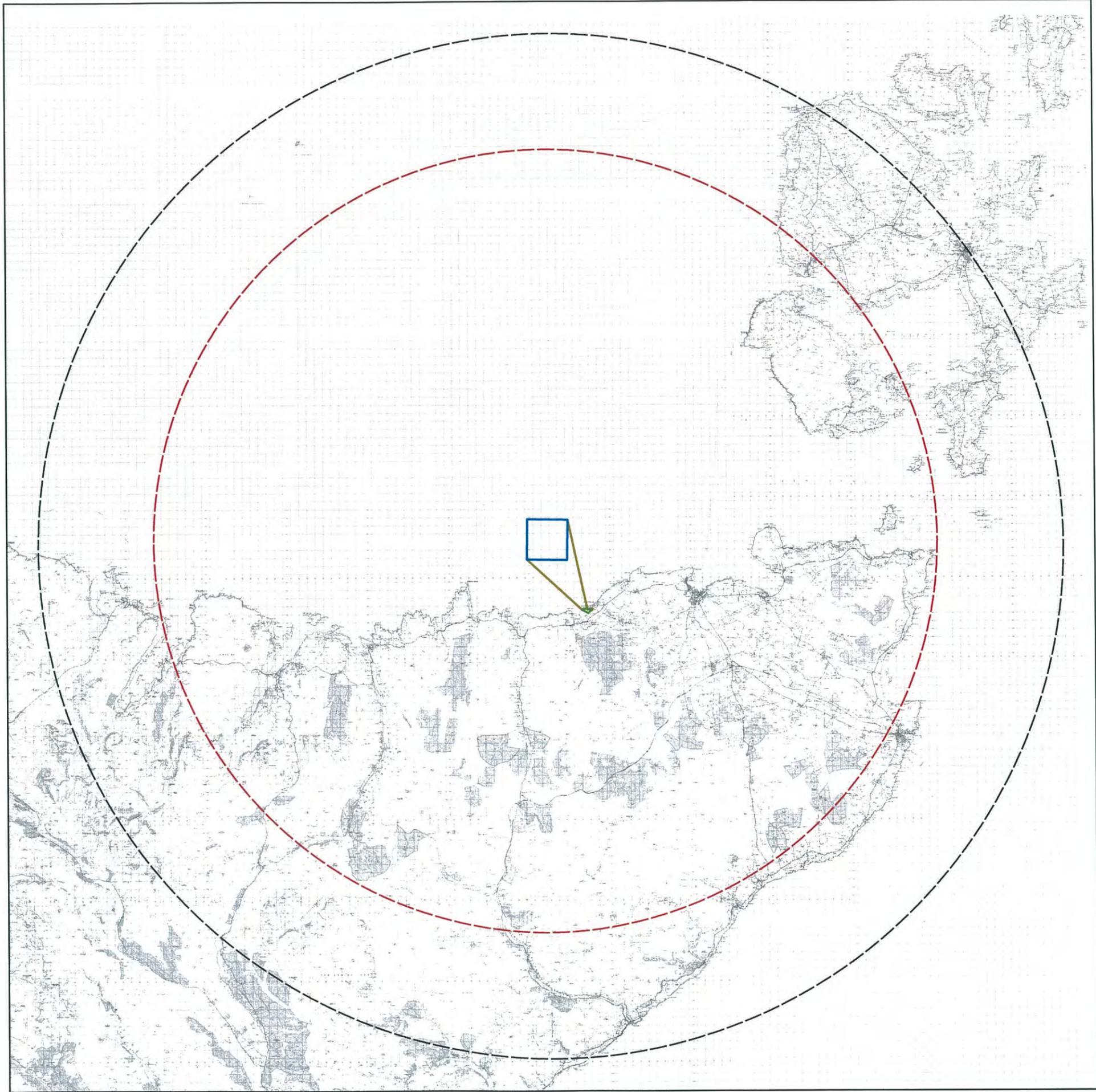


The Highland Council  
Comhairle na Gàidhealtachd

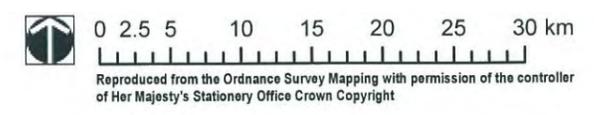
Planning & Development Service

Development Site 6KM NW of Dounreay Nuclear Site Research Establishment  
**Case No: 16/04775/S36**

Erection of two offshore wind turbines & erection of onshore electricity substation



- Legend**
- Hexicon Dounreay Demonstration Site
  - Onshore study area
  - Export cable corridor
  - Core Study Area
  - Extended Study Area



Hexicon Dounreay Demonstration Site - Offshore  
Seascape and Landscape and Visual Impact Assessment

**Study Area**

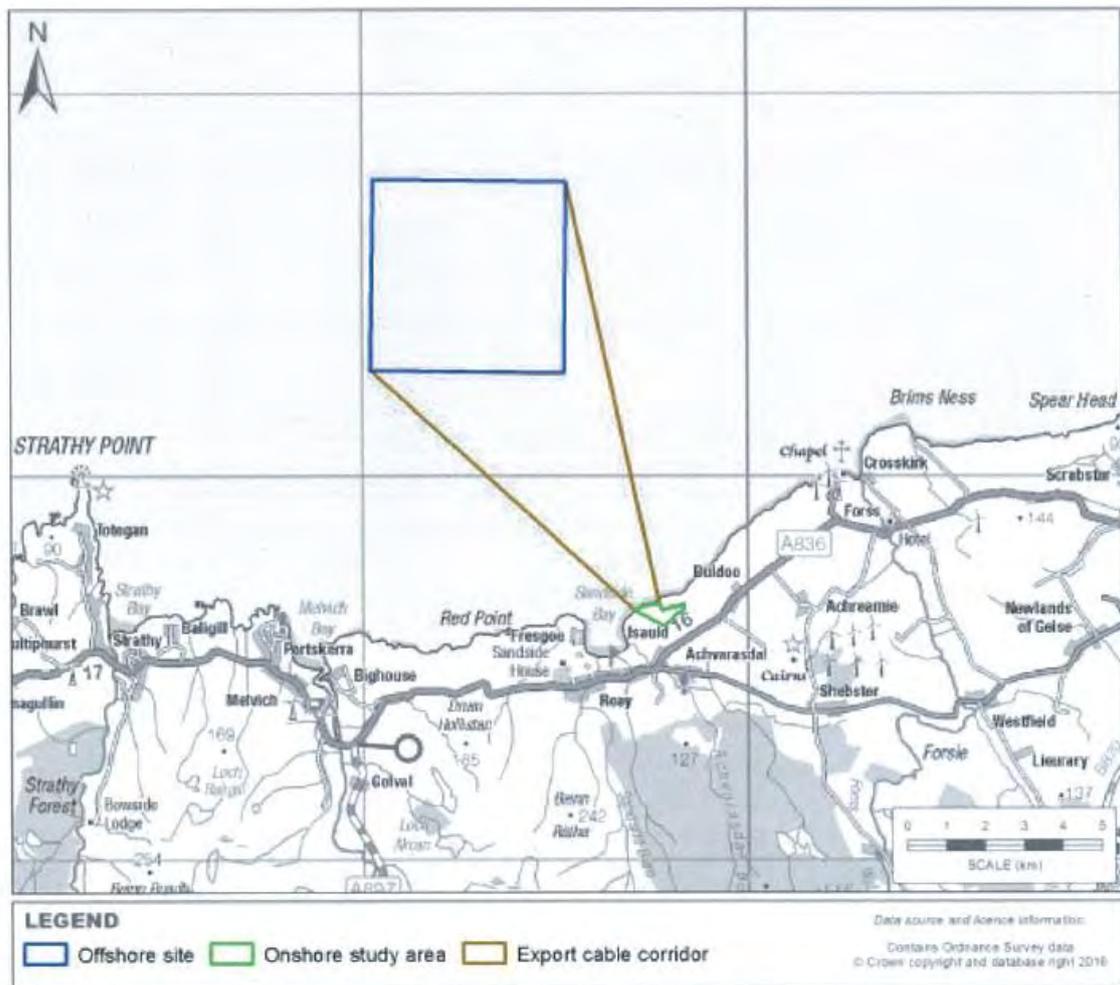
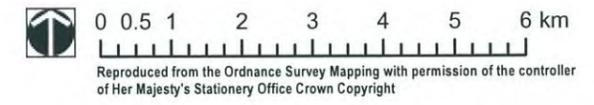


Figure 1-1 Offshore site, export cable corridor and onshore study area

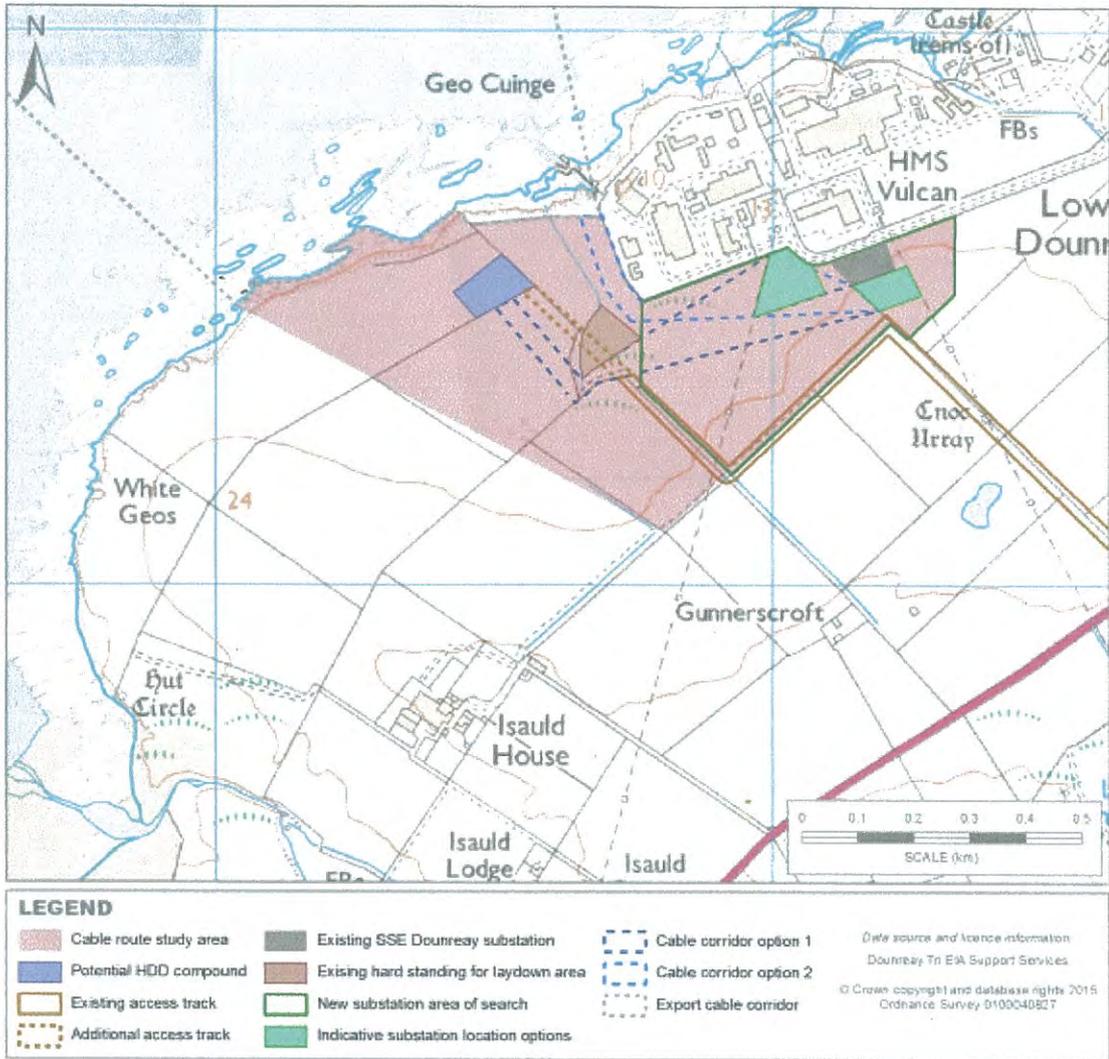


- Legend**
- Cable route study area
  - Existing SSE Dounreay Substation
  - Substation locations
  - Study Area



**Hexicon Dounreay Demonstration Site - Onshore  
Landscape and Visual Impact Assessment**

**Substation Study Area**



**Onshore study area - including indicative landfall options, substation options and cable corridors**

**Offshore Site Coordinates**

Corner	Latitude	Longitude
NW	58°40'25.6"	3°53'36.0"
NE	58°40'27.7"	3°48'25.7"
SE	58°37'46.0"	3°48'22.0"
SW	58°37'44.0"	3°53'31.9"



PL

**Dounreay Tri Floating Wind Demonstration Project, Dounreay, Caithness.**

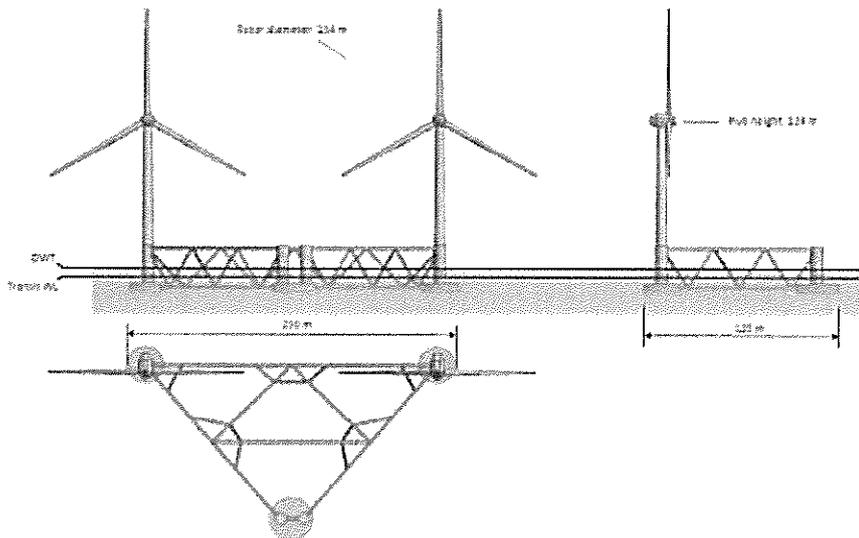
**Turbine Elevations**

The following dimensions are taken from the Project Description in Chapter 4 of the Environmental Statement

The turbine envelope sets maximum and minimum turbine dimensions against which the environmental impacts of this Project have been assessed (Table 4-1). These minimum and maximum dimensions used to define the turbine envelope are based on current offshore wind turbine technology.

**Table 4-1 Turbine Envelope**

Nominal rating	Maximum rotor tip height (above LAT)	Maximum number of turbines	Maximum rotor diameter	Maximum hub height (above LAT)	Minimum air draft (above MHWS)
4 MW	185m	2	130m	120m	22m
5 MW	186m	2	132m	120m	22m
6 MW	201m	2	154m	124m	22m



**Indicative platform parameters**



PS

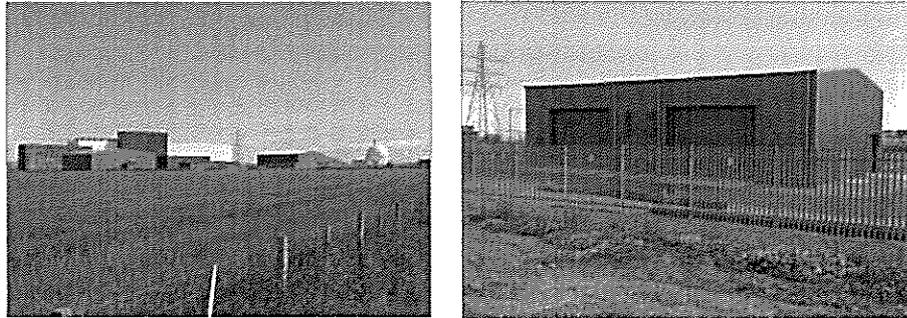
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The turbines will export power at 33kv. The Project will require either a:

- Switchgear to connect to the distribution network at 33KV; or
- Substation to connect to the transmission network at 132KV.

The onshore substation or switchgear will include the electrical equipment required to connect the Project to the grid. This may include switchgear, transformers, filtering and harmonic equipment, reactive compensation devices, protection equipment and other auxiliary equipment.

The entire footprint to the edge of the fence line is likely to be an area of approximately 50m x 50m (0.25 hectares). The majority of electrical plant should be indoors owing to the coastal location. The substation building itself shall be approximately 30m long, 17.5m wide and up to 8m above finished ground level (FGL). Figure 4-14 provides the context in which a proposed new substation would be set and shows the existing 132/33/11kv substation. A new substation is unlikely to be larger than the existing 132/33/11Kv substation.



**Figure 4-14 Substation context and existing 132/33/11kv Dounreay Substation**  
(RES, 2015)

External lighting will be used to illuminate the building but this will be intermittent and only when

Jessica Drew  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

Your ref:  
Section 36

Our ref:  
TS00442

Date:  
24/11/2016

[MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)

Dear Sirs,

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

With reference to your recent correspondence on the above development, we acknowledge receipt of the Environmental Statement (ES) prepared by Dounreay Tri Limited in support of the above development.

This information has been passed to JMP Consultants Limited for review in their capacity as Term Consultants to Transport Scotland – Trunk Road and Bus Operations (TRBO). Based on the review undertaken, we would provide the following comments.

A Scoping Report was submitted for the proposed development in December 2015. Transport Scotland was consulted on this report and provided comment in our letter dated 27 January 2016. In this it was concluded that any increase in traffic movements as a result of construction traffic associated with building the sub-station would not trigger the need for any further assessment of environmental impacts associated with generated traffic on the trunk road network. Similarly, we concluded that the proposed development would have no impact on noise or air quality at the trunk road network.

**Proposed Development and Site Location**

The proposed development consists of a two turbine offshore wind farm with an installed capacity of between 8 to 12MW, approximately 6 km off Dounreay, Caithness. It will also involve a single export cable immediately to the west of the Dounreay Restoration Site fence line and associated onshore electrical infrastructure to connect the Project into the electricity grid near the existing Dounreay substation.

The nearest trunk road to the site is the A9(T) located approximately 6km to the east.

The ES indicates that the components for the offshore wind farm will be fabricated at a steel yard and then shipped to a dry dock where they will be fully assembled and partly commissioned. They will then be floated out from the dry dock and towed to site where the export cable will be attached. The onshore cable will be delivered to site on drums by HGVs. It is understood that this construction method will not result in any abnormal indivisible loads being transported via the trunk road network. There is, therefore, no need for an abnormal load route assessment.

### **HGV Movements**

The ES indicates there will be a maximum of 30 HGV trips per day (60 movements) for 5 days. While this is a slight increase in the figure stated within the Scoping Report, it is noted that this level of traffic generation does not trigger the threshold for any further detailed assessment of environmental effects, as indicated within the Institution of Environmental Management and Assessment (IEMA) Guidelines. We are, therefore, content that our earlier conclusion that there will be no significant environmental impacts on the trunk road and adjacent receptors remains valid.

### **Dredging**

It is noted that installation of the platform may require dredging to level the seabed, with any dredged material being disposed of at a licenced site onshore. We note that any dredging operations will require to be supported by a separate Marine Licence application and subject to additional consultation.

### **Conclusion**

Given the above, we conclude that the proposed development will not significantly impact upon the trunk road network nor will it give rise to any significant environmental impacts on receptors adjacent to the trunk road network. We can, therefore, confirm that we have no objection to the application.

I trust that the above is satisfactory and should you wish to discuss any issues raised in greater detail, please do not hesitate to contact Alan DeVenny at JMP's Glasgow Office on 0141 226 6923.

Yours faithfully



**John McDonald**

**Transport Scotland  
Trunk Road and Bus Operations**

cc Alan DeVenny - JMP Consultants Ltd

## Drew J (Jessica)

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**From:** Drew J (Jessica)  
**Sent:** 22 November 2016 13:30  
**To:** Drew J (Jessica)  
**Subject:** FW: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

---

**From:** [REDACTED]@ukchamberofshipping.com]  
**Sent:** 24 October 2016 13:57  
**To:** MS Marine Renewables  
**Subject:** RE: Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Thank for the documents detailing the Public Consultation on Dounreay Tri Floating Wind Demonstration Project. The UK Chamber of Shipping has no further comments to make.

[REDACTED]  
Policy Manager

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

DD +44 (0) 20 7417 2828

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

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**From:** [MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot) [<mailto:MS.MarineRenewables@gov.scot>]  
**Sent:** 19 October 2016 12:39  
**Subject:** Public Consultation on Dounreay Tri Floating Wind Demonstration Project , ending on 30th November 2016

Dear Sir /Madam,

### **ELECTRICITY ACT 1989**

*The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 (as amended)*  
*The Electricity (Applications For Consent) Regulations 1990 (as amended)*

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

*The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)*

### **TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997**

**APPLICATION FOR CONSENT UNDER SECTION 36 AND A DECLARATION UNDER SECTION 36A OF THE ELECTRICITY ACT 1989 AND TWO MARINE LICENCES UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010, TO CONSTRUCT AND OPERATE DOUNREAY TRI FLOATING WIND DEMONSTRATION PROJECT, 6 km FROM THE COAST OF DOUNREAY, CAITHNESS**

Jessica Drew  
Marine Scotland - Marine Planning & Policy  
Scottish Government  
Marine Laboratory  
PO Box 101  
375 Victoria Road  
Aberdeen, AB11 9DB

[ms.marinerenewables@gov.scot](mailto:ms.marinerenewables@gov.scot)

05<sup>th</sup> December 2016

Dear Jessica Drew,

WDC comments on the Dounreay Tri Floating Wind Demonstration Project Environmental Statement (ES) and Habitats Regulation Appraisal (HRA)

Thank you for the opportunity to provide comments on Dounreay Tri Floating Wind Demonstration Project Environmental Statement (ES) and Habitats Regulation Appraisal (HRA). Given our area of interest, we have only focused on the marine mammal sections.

WDC are endeavouring to assist with the environmentally sustainable development of marine renewable energy in Scotland. Whilst welcoming the Scottish Governments' commitment to renewable energy generation, particularly noting the potential consequences of climate change for cetaceans, we have serious concerns about current levels of uncertainty and the possible negative impacts these developments, both individually and cumulatively, may have on cetaceans (whales, dolphins and porpoises) and seals in Scottish waters.

We understand that the project will deploy a two turbine floating offshore wind farm approximately 6 km off the coast of Dounreay, Caithness. The development will have a maximum capacity of up to 12 MW. The floating wind turbine platform will be fixed to the seabed using anchors and no pile driving will be required. There will be a single export power cable to the Dounreay area.

Specific comments

Overall, we are happy with the Environmental Statement and are in general agreement that the level of impact on marine mammals in the area will be negligible as long as pile driving is not required. Should pile driving be required, an addendum to the ES and HRA will need to be submitted.

We would like to request involvement in the development of the Vessel Management Plan. Furthermore, we would like Marine Mammal Observers (MMOs) to be used at all times during construction and deployment of the wind farm floating platform and cable laying.

Habitats Regulations Appraisal (HRA)

We agree with the overall conclusion of the HRA that there will be no adverse effect on the

WHALE AND  
DOLPHIN  
CONSERVATION



SACs.

We hope you find these comments useful and would be happy to discuss these comments further.

Yours Sincerely,

[REDACTED]

[REDACTED]

Scottish Policy Officer

WHALE AND  
DOLPHIN  
CONSERVATION

