Scottish Natural Heritage
Dualchas Nàdair na h-Alba
All of nature for all of Scotland
Nàdar air fad airson Alba air fad

Marine Scotland
375 Victoria Road
Aberdeen
AB11 9DB

19 April 2018

Our ref:
CNS/REN/OSWF/Kincardine/Post consent/CLC150056

By email only:
For the attention of Panos Pliatsikas

Dear Sir / Madam,

Kincardine Offshore Wind Farm
Discharge of Conditions - Plans

Thank you for consulting SNH on the various plans required to enable the discharge of conditions for the various consents for this offshore wind farm. Last week we provided our comments on the Environment Management Plan and Construction Programme (emails of 13 April 2018). In this letter we provide our comments on the following plans:

1. Construction Method Statement
2. Cable Plan
3. Vessel Management Plan
4. Project Environment Management Plan
5. Operation and Maintenance Plan.

We have also reviewed the Lighting and Marking Plan to inform our comments for the following plans:

6. Development Specification and Layout Plan
7. Design Statement.

Our comments on both the Design Statement and the Development Specification and Layout Plans will be combined and sent to you next week to meet the 26th April 2018 deadline.

General Comments
SNH notes that the proposed Tranche 1 timeline does not allow for the conditions of the section 36 electricity consent to be met i.e. the supply of plans 6 months in advance of construction. In this regard we are aware of the issues around the original procurement of turbines and the changes this has caused to the project programme. We note from the recent correspondence sent by KOWL to Aberdeenshire Council (email 19 April 2018) that the timescale for the submission of plans for Tranche 1 has been agreed with MS LOT. We therefore have no further comments to make other than to support the statement provided by

KOWL that any future iterations of plans for the second and third tranches of works are provided prior to 6 months of any activity occurring.

SNH Comments on Plans

1. **Construction Method Statement (CMS)**

The CMS states that it is provided for Tranche 1 only; however, some of the activities described also take place within Tranches 2 and 3 and are not sufficiently detailed in the CMS.

While we appreciate the details of Tranches 2 and 3 are not yet confirmed and timescales to progress the KOWL project have been tight, we would expect this CMS to include indicative dates for when further iterations of the CMS will be issued for consideration of Tranches 2 and 3. These dates should be confirmed and agreed with MS LOT.

Cable laying, burial and post-lay survey
Cable laying is currently proposed for Tranche 1 (Export cable 1) and Tranche 2 (Export cable 2). The duration of the cable laying operations is not provided in the CMS but the cable plan states this will be 9 days per cable. Export cable 2 (currently scheduled for installation in April 2019) may be installed as part of Tranche 1; however, at the time of writing the CMS, the date was still to be decided.

Mitigation outlined in the ES / variation indicated the aim for a required burial depth of 1.5m. It was proposed that this would be confirmed by a post-lay survey to identify if cable protection to achieve this burial depth is required (CMS, Table 9-1).

The CMS states that where cable burial depth is not achieved, suitable protective material (such as rock dump) will be used to ensure coverage. The post-Lay survey should provide further detail about the location, extent, description of material to be deposited, including character, size, source and volume of any rock or concrete mattresses should this be required to bury cables to a suitable depth. This will fully inform our advice, including regarding suitability of materials and timing of the works.

We welcome the proposed As-Built Survey (CMS section 6.4) to confirm it has been laid to the correct depth and manner. This will also provide a baseline for the future long-term monitoring of the cable burial.

Moorings
We note that as per the moorings and anchors described and assessed in the Original ES, ES Addendum and Variation ES, the 2MW turbine and substructure will have four mooring lines and drag embedment anchors (12T Stevshark) will be used (Development Specification and Layout (DSLP) section 2.2). However, the number of mooring lines and anchors for the larger turbines will be confirmed prior to Tranche 2. It is still anticipated that only three mooring lines will be required, and that drag embedment anchors will be used. This information should be included in further iterations of the CMS / DSLP for Tranches 2 and 3.

Installation of inter-array cables
The installation of the inter-array cables is scheduled for August 2019 and details of the methodology are not known at this time. This information should be provided in future iterations of the CMS and other relevant documents (e.g. cable plan).

2MW turbine, installation and removal
Limited reference is made to the timing and removal of the 2 MW turbine to be installed in Tranche 1. Moving 2MW turbine from location 1 to Location 8 is planned for Tranche 3 June 2020 (dependent on recertification and consultation). This was a key issue that informed our advice for the variation application. We recommend that further clarification of the details about the removal of the 2 MW turbine and timing / duration of the activities relating to this turbine are included in future iterations of the CMS.

2. Cable Plan

Please refer to our comments above for the CMS which make reference to aspects of the Cable Plan. As for other KOWL post-consent consultation reports, we expect the Cable Plan to include indicative dates for when further iterations of the plan will be issued for consideration of finalised details of methodologies proposed, including for Tranches 2 and 3. These dates should be confirmed and agreed with MS LOT.

3. Vessel Management Plan (VMP)

The condition stipulates the VMP should outline the means by which vessel movements will be avoided or minimised during the last two weeks of July and first two weeks of August.

Construction activities for Tranche 1 (Mooring installation turbine location 1, Export Cable 1 installation, Installation of 2MW turbine at location 1) are expected to be completed by July 2018. Although no specific date is provided, we presume that works are scheduled to be concluded prior to the sensitive period identified for birds (last 2 weeks in July / first 2 weeks in August). Should works overrun into the sensitive period for birds, consideration should be given to further mitigation measures to avoid disturbance / displacement of rafts of birds that may be present at the site at this time, including vessel speed, frequency of transits and routes. Further advice can be provided for appropriate mitigation, as required.

Operational requirements are unknown at the time of writing, however KOWL indicate their commitment to restricting maintenance vessel movements during the period stated in the condition to those that are absolutely necessary for safety reasons. If for any reasons there are likely to be periods of vessel activity during this sensitive period this should be highlighted for discussion at the earliest opportunity with both MS LOT and ourselves.

While we appreciate the details of Tranches 2 and 3 are not yet confirmed and timescales to progress the KOWL project have been tight, we would expect this VMP to include indicative dates for when further iterations of the VMP will be issued for consideration of Tranches 2 and 3. These dates should be confirmed and agreed with MS LOT. The finalised VMP should provide sufficiently detailed vessel information for the construction and operations project phases.

4. Project Environment Management Plan

Proposed GPS tagging of puffins

We welcome the proposed GPS Tagging of puffins. This plan indicates that KOWL will fund a tagging programme designed and managed by RSPB or a sub-contractor. It is proposed that a single pilot project will be undertaken in year one with the full scope of the programme to be developed and agreed by autumn 2018 with tagging work undertaken during May/June 2019. The pilot programme will include tagging of individual puffins from the Forth Islands SPA.

We recommend that KOWL provide an update about progress in the planned pilot tagging study with a view to agreeing a timeline for the proposed methodology to be reviewed sufficiently in advance of tagging and remote data recording in May/June 2019. The timing of tagging should take into account the potential influence on bird behaviour of any works on site at that time, should there be any slippage of activities planned during Tranche 2 (Export Cable 2 installation, Mooring installation - April 2019, Turbine Locations 5-7; Installation of inter-array cables Locations 5-7, Installation of turbines to Locations 5-7 - August 2019). While we note a single pilot study is proposed at this stage, review of the pilot study will inform any requirement for subsequent years of tagging to be undertaken on the Forth Islands SPA/other relevant colonies.

Monitoring using turbine mounted cameras

Eight HD cameras will be initially installed on the first turbine to be deployed (2MW). The report states these will be added in Tranche 1, we assume during commissioning planned for July 2018. Cameras will continuously record video and sounds of bird flights made within the vicinity of the turbine using the DTBird online Data Analysis Platform. Appendix A (DTBird Specification) has a title but no content, however, some information is provided about how the system operates to record video and audio files.

We welcome the planned use of these cameras on the first (2MW) and subsequent larger turbines. We also welcome the exploration of the possibility of thermal cameras mounted to record night detection of bird activity on the six larger 8.4MW turbines. Cameras may record a significant amount of data and data analyses may be the most time consuming and costly aspect of the proposed camera monitoring. In order to ensure meaningful outputs and conclusions, analyses will need to be considered as well as realistic agreed reporting deadlines, currently proposed to be 3 months post data collection.

We therefore recommend that the methodology, including timing and duration for proposed camera deployment and subsequent analyses is submitted for review and agreed prior to recording commencing on turbine 1. Outputs from cameras from monitoring on the first turbine will act as a pilot to inform future camera use and monitoring requirements (methods, analyses and reporting) for the larger turbines to be deployed later. Similarly for tagging, the timing of camera monitoring should take into account the potential influence on bird behaviour of any works/turbine construction status at the time of deployment.

The report suggests (page 22, collision sensors) it will be possible provide accurate estimates of bird collisions and therefore provide evidence to support/amend bird collision models used for the project HRA on the basis of 12 months data from the 2 MW turbine. We consider that 12 months of data recorded from the deployed 2 MW turbine is unlikely to represent the estimated collision risk for the consented KOWL turbine scheme as a whole. To monitor this, all turbines would require to be in place at the time of monitoring. Requirements for such future monitoring should be subject to agreement with MS LOT and other relevant stakeholders.

Collision sensors

There may be a potential option to install acoustic sensors inside the turbine blades to detect collisions at all times of day. It is proposed that a decision to install sensors will be made after collection of 12 months of camera data from the 2MW turbine. We would recommend this decision is informed by analyses and reporting of 12 months of camera data and that the feasibility of installing sensors should be explored in advance.

Radar

Similarly for collision sensors, any decision on installing radar as a monitoring tool is proposed to be deferred until the initial 12 months of camera monitoring is completed (as well as analysed and reported). We would agree that it is appropriate and that as for sensors, the feasibility of deploying this technology should be explored in advance.

Aerial Surveys

We welcome the consideration for carrying out post-consent aerial surveys to estimate displacement. The requirements for such surveys as well as survey timing and frequency should be discussed and agreed with MS LOT and relevant stakeholders.

Noise profiling pre-and post-construction

We provided advice on proposed noise profiling monitoring (by email, February 2018) and are content with the outlined approach for pre-construction. The methodology for post construction monitoring is yet to be determined and this will be confirmed in coming months and the PEMP will be updated accordingly. On conclusion of noise profiling, a report outlining the results should be made available to MS LOT and relevant stakeholders within agreed timescales.

Entanglement monitoring

We note that following consultation with MS-LOT, is has been agreed that an entanglement plan for marine mammals is sufficient and an entanglement plan for birds is not required (detailed entanglement monitoring plan for birds Condition 22). We agree that an entanglement plan for marine mammals is sufficient for this project.

Consent condition 22 states that the PEMP should include a detailed entanglement monitoring and reporting schedule, particularly of load on the moorings from derelict fishing gear. We previously agreed that load cells and ROV surveys were sufficient methods for monitoring impacts on marine mammals; however, the PEMP does not adequately outline the proposed commitment or schedule for entanglement monitoring and reporting.

Load cell

For load cells, it would be helpful to confirm the feasibility of deploying this technology – not only for its specified purpose (to assess the performance of the mooring lines during operational conditions) but also to explore its usefulness as a potential proxy to monitor the presence of ghost fishing nets lodged on the mooring system / cables.

ROV surveys

Similarly with load cells, periodic maintenance ROV surveys are primarily to be used for monitoring the integrity of the inter-array cables, mooring lines and anchors. ROV surveys are currently proposed every 6 months with decreased frequency over the life of the project. No reporting schedule is discussed. We would recommend a schedule for post-construction monitoring be agreed with MS LOT, commencing on conclusion of commissioning of the final 7 turbine scheme. Subject to reporting outcomes, survey frequency could be reviewed with a view to reducing frequency over time.

5. Operation and Maintenance Plan.

The approach to updating the O&M Programme (Section 1.4) indicates further changes to the document are expected as the project progresses. We would expect that the O&M Programme should include indicative dates for when further iterations of the programme will be issued for consideration. These dates should be confirmed and agreed with MS LOT.

Export / Inter-array cable and mooring inspections

The report states that the initial O&M phase will require more frequent surveys of both the export cables and the inter-array cables to ensure cable burial depth is maintained. Once a baseline of burial is obtained and verified, the report indicates cable inspections will be reduced during the later periods of the wind farm to approximately one per two years.

Similarly for mooring inspections, monitoring of potential fishing gear snags will be undertaken through the load cells and visual ROV inspections of the mooring will be undertaken as part of the standard survey of the mooring system and it is proposed that once a baseline of potential fishing gear entanglements has been collated, monitoring and inspections will be reduced during the later periods of the wind farm to approximately one per two years.

We recommend that the frequency, methods, sufficiency and reporting for baseline surveys for export / inter-array cable and mooring is discussed and agreed with MS LOT prior to agreeing the point at which monitoring and inspections may be reduced during the wind farm operational period. Baseline information should inform the frequency of ongoing monitoring / inspections over the course of the operational life time of the wind farm.

I hope these comments are of assistance. We will provide our remaining comments on the Design Statement and the DSLP next week.

Yours sincerely

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

Our ref: PCS/158210
Your ref:

If telephoning ask for:
Clare Pritchett

17 April 2018

Panos Pliatsikas
Marine Scotland
Marine Scotland Licensing Operation
Scottish Government
Marine Laboratory,375 Victoria Road
Aberdeen
AB11 9DB

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

Dear Mr Pliatsikas

The Electricity Act 1989
The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000
The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Kincardine Offshore Windfarm
Discharge of conditions attached to s36 consent
Condition 10 (Construction Method Statement), 11 (Development Specification and Layout Plan), 15 (Operation and Maintenance Programme and 17 (Cable Plan)
Approx 15km SE off the coast of Aberdeen

Thank you for your consultation email which SEPA received on 26 March 2018.

To assist with streamlining the consultation process, we now focus our site specific advice where we can add best value in terms of enabling good development and protecting Scotland's environment. You have not completed a specific reason for consulting us and we did not request this condition therefore we do not provide site-specific advice.

Please refer to our standing advice on marine consultations within guidance document SEPA standing advice for The Department of Energy and Climate Change and Marine Scotland on marine consultations. If, after consulting this guidance, you still require our comment on some site specific issue which is not adequately dealt with by the standing advice, then we would welcome the opportunity to be re-consulted. Please note that the site specific issue on which you are seeking our advice must be clearly indicated in the body of the consultation email or letter.

If you have any queries relating to this letter, please contact me by telephone on 01224 266609 or by e-mail to planning.aberdeen@sepa.org.uk.

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Yours sincerely

Clare Pritchett
Senior Planning Officer
Planning Service

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 the planning stage. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning 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 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. 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 in How and when to consult SEPA, and on flood risk specifically in the SEPA-Planning Authority Protocol.

Smith H (Hannah)

From: Malcolm Morrison <M.Morrison@sff.co.uk>
Sent: 05 April 2018 14:51
To: MS Marine Renewables; Keir A (Alan) (MARLAB); Pliatsikas P (Panos)
Cc: Femke de Boer; Raymond Hall
Subject: KOWL Plans

Follow Up Flag: Follow up
Flag Status: Flagged

All
With reference to the Construction Method statement, the Cable Plan, the Development Specification and Layout plan & the Navigational Safety Plan.
Given that revisions were distributed to cover the initial omissions, and the developers have agreed to edit correctly references to the SFF/ SFFSL, if these are reflected in the final documents, the SFF are content to submit a "Nil Return Response" to these documents

Malcolm

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