



Scottish Natural Heritage Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad

Marine Scotland
Marine Laboratory
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12th May 2017

Our ref: CNS REN OSWF EOWDC
By email only: MS.MarineRenewables@gov.scot

Dear Sir / Madam

An Independent Evaluation of the potential impact of the Aberdeen Offshore Wind Farm upon Salmon and Sea Trout – Anthony D Hawkins Loughine Limited. 2017.

Thank you for sending the above report to SNH for comments. SNH is a statutory consultee and has been providing advice on this development since its early inception in 2004. As such we were involved in pre application discussions as well as providing statutory advice as part of the environmental impact assessment process upon submission of the application in 2011 and subsequently on the addendum to the application. Since the consent was issued in 2013, we have been involved in the provision of advice for:

- I. Commenting on plans etc. to enable the discharge of conditions attached to both the S36 Consent and the associated Marine Licences
- II. Commenting on aspects of onshore elements through the Town and Country Planning system that fell within our service level statement.
- III. Provision of advice to the Scientific Panel which is involved in the consideration of scientific research projects with the associated European grant monies.

Aberdeen Bay Wind Farm – European Offshore Wind Deployment Centre

The wind farm application and Environmental Statement submitted was to build an 11 turbine wind farm, which could demonstrate different types of turbines, substructures and foundations. The Environmental Statement was based on a Rochdale Design Envelope to assess the worst case scenario for each receptor.

Since the acquisition of the wind farm by Vattenfall, it has been clarified that all 11 turbines will be the same and more recently after trials in 2016, it has been confirmed that the turbine foundations will no longer be piled, but will use suction buckets for each of the 11 turbines.

SNH advice at Application

We identified that the original Environmental Statement was of a poor quality and requested further environmental information to be provided in a Supplementary Environmental Information Statement (SEIS). This was received in 2012. We advised that we had undertaken an appraisal of the application and supporting information, and we concluded that the proposal could be implemented without serious adverse effects to designated sites

and the wider natural heritage provided any consent was made subject to a number of conditions to mitigate the effects.

All developments can have some effects (positive or negative) on receptors. The degree of effect can depend on the pathway to impact, the duration of the activity, sensitivity of the receptor, mitigation of effects and scientific knowledge and evidence.

Report by Anthony Hawkins

The report reviews information relating to the consent including the application and supporting environmental information. It is assumed that the author has had access to all relevant publically available material.

The report raises concerns regarding the assessment process and impacts to Atlantic salmon and sea trout as well as raising queries on the process since consent, in particular whether the conditions laid out in the consent are in place and what, if any, additional assessment has been carried out due to changes in foundation construction. The report also queries the consultation process – on this aspect SNH offers no comment as this is outwith our remit.

Environmental Assessment

- Consideration of Impacts

SNH has considered of the impacts through noise and EMF to mainly diadromous fish interests (Atlantic salmon, trout (and by association freshwater pearl mussels), river and sea lampreys) as well as the European eel. We did not consider the impacts to marine fish species as this falls within the remit of Marine Scotland.

Our assessment considered the impact pathways of underwater noise – largely through the construction phase for piling noise for the as then proposed piled foundations. We also considered operational noise impacts; provided advice on the impacts from raised sedimentation levels during construction, and we also considered the impacts associated with Electro-Magnetic Fields (EMF) from the inter-array cables and also the export cables to shore.

The report raises a number of issues to which we provide further advice and/or commentary:

- I. The need for avoidance of impacts to spring running adult salmon is raised, (we considered all run types of Atlantic salmon) – and advised that significant adverse impacts can be avoided through the timing of construction work as well as construction methods.
- II. The construction and operation of the wind farm may lead to an additional risk of predation – it is not considered likely that there will be any increase in risk of predation as the duration of construction is relatively short and no obstruction from the construction and operation of the wind farm will occur from this project to any of the natal rivers.
- III. Effect on migratory cues – very little is known about the migratory cues and it is not considered likely that the construction and operation of this wind farm will have a significant adverse effect on such migratory cues. Marine Scotland is currently undertaking tagging and other research work which will help inform our understanding of Atlantic salmon movements and migration.
- IV. All aspects of construction and operation activities are required to have in place pollution contingency plans and these have to be consulted upon, it is therefore unlikely that there will be any major effects from any accidental pollution issues.
- V. The consideration of underwater noise is an area that was fully considered by SNH. The more recent change from piled foundations to that of suction bucket foundations

has also been fully assessed and impacts were judged to be acceptable and would not have an adverse significant impact.

- VI. We advised on the requirement for the burial of cables to reduce the effects of EMF. The cable laying strategy indicates that burial of cables to the recommended depth is planned.

Conditions

The key conditions requested by SNH in respect of fish interests are either no longer required due to the changes from piled foundations to the use of suction buckets, or are still required and are in the process of being discharged. These include:

- The burial of cables to reduce the effects of EMF;
- The production of a project environmental management plan (PEMP);
- Consideration and implementation of pollution prevention measures;
- The production of a vessel management plan; and
- The production of a cable laying strategy for the export cables.

Research requirements

In terms of ongoing research, we are aware that Marine Scotland Science are currently tagging and tracking Atlantic salmon in various locations along the East coast, including (smolt tracking work the Dee DSFB) near to the mouth of the River Dee. This work is at an early stage and we have not yet received any results from this work.

The Scientific Expert Panel has met to discuss potential research projects. SNH is a member of this group and we are waiting on final decisions from Vattenfall on which projects will proceed. We are also aware of several other research groups that are considering research aspects of relevance to fish species as well as the outputs from monitoring reports from constructed wind farms.

In considering the issues raised in this report we do not consider that anything further requires to be addressed, accepting that knowledge gaps remain in some aspects of fish behaviour and ecology. The development of this wind farm in this location is not considered to have significant adverse effects and any research/monitoring carried out as part of the wind farm development will assist in our understanding for future developments whether renewables related or not.

I hope our comments are of assistance to you. Please do not hesitate to contact me if I can be of any further help on this matter.

Yours faithfully

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