

Queiros J (Joao)

From: Gardiner R (Ross) (MARLAB)
Sent: 17 July 2014 13:08
To: Ford A (Alexander); MS Marine Licensing
Cc: Stainer P (Paul) (MARLAB)
Subject: RE: 002/TIDE/SPR - 2: MS LOT to MSS: ScottishPower Renewables: Sound of Islay Demonstration Tidal Array: ES Consultation 1 Week After Reminder: 16 July 2014

Dear Ali

Many thanks for seeking comments in respect of diadromous fish and fisheries.

Scottish Power Renewables (SPR) currently holds consent to construct, install and operate a demonstration tidal power array for 14 years within the Sound of Islay. SPR wishes to make various changes which include

1. Changes to the device dimensions - slightly larger turbines, but with the same maximum tip speed, and with the heights to the hubs slightly greater, resulting in slightly reduced device to surface clearance and slightly reduced device to bed clearance;
2. Slightly altered device locations;
3. Inclusion of additional installation vessel options;
4. Change in landfall and export cable route due to the associated revised onshore substation location from Jura to Islay. The new export cable route has now been consented separately. I was not asked to comment on this.
5. Array to operate for 25, rather than 14, years

SPR has left the original assessment in place. However, although I have no reason to disagree with SPR's statement that the changes in parameters 1-4 above are not particularly significant, SPR's original risk assessment was not comprehensive.

SPR advises (see 2014 NTS 4.5.2. and 4.5.3) that the original assessment included consultation with local "salmon fishery associations" and Marine Scotland (Pitlochry) and concluded that there was no evidence to suggest that anadromous fish use or transit the waters of the Sound of Islay and that watercourses on Islay and Jura adjacent to the Development have limited potential to support anadromous fish populations. It also advises that, nonetheless, it was assumed that migratory fish species make use of the Sound, although the Sound was not considered to be a site of particular importance for anadromous fish. However, the advice of Marine Scotland Science provided by Dr Malcolm at the time is different - his email and detailed attachment of 27/8/10 are included in the material held on G:\renewables.

Dr Malcolm

- Emphasised the uncertainties
- Noted that the assessment would have benefited greatly from access to a forthcoming MSS review of migratory routes and a forthcoming SNH review of EMF and noise but that this had not been possible as the documents were not yet available. These subsequently have become available, of course, and I refer to them later in the present response
- Noted the considerable uncertainties over the distribution of salmon and sea trout at sea and that the assumption that that the area is not heavily used by diadromous fish is an assertion that was unfounded at that stage
- Noted that it is possible that salmon will migrate through the site to SAC rivers
- Noted the differences in behaviour between salmon and sea trout, with some at least of sea trout potentially staying closer to their home rivers and spending long periods in coastal waters feeding, in addition to migrating
- Noted that risk to eels should also have been considered.

The points made by Dr Malcolm in his email and attachment do not appear to have been addressed.

In addition, I would note that

1. The review by Marine Scotland Science of migratory routes and behaviour for Atlantic salmon, sea trout and eels is now available on <http://www.scotland.gov.uk/Resource/Doc/295194/0111162.pdf>. More recently, the information now coming in from satellite tagging of adult salmon elsewhere in Scotland indicates that salmon returning to Scottish rivers may swim around over considerable distances around Scotland seeking homing cues, not necessarily sticking close to the coast and not following closely defined routes. In the light of this, it would not be wise to be dismissive over the likely presence of adult salmon in the Sound of Islay. Many of the adult salmon which could be present would be likely to be returning to rivers other than local ones.
2. If what is meant by the statement (NTS 4.5.2) “survey has shown that watercourses on Islay and Jura adjacent to the Development have limited potential to support anadromous fish populations” that watercourses on Islay and Jura immediately adjacent to the Development have limited potential to support anadromous fish, I would agree with it. But I also note that some of the rivers which discharge to the west side of Islay have significant populations and rod fisheries for salmon and sea trout.
3. Nowadays, for proposed tidal stream developments, there would be an expectation that there would be more detailed appraisal of the risk of collision with diadromous fish, probably involving a collision risk model, which was not done in the original risk assessment. If there had been an existing collision model, this could have been reparameterised with the new turbine parameters to assess the likely effect.
4. Nowadays, there would probably also have been an expectation that there would be more detailed consideration of the risk posed by EMF and noise and the useful reviews of Gill and Bartlett (2010) and Gill et al (2012) would have been available (Gill, A.B. & Bartlett, M. (2010). Literature review on the potential effects of electromagnetic fields and subsea noise from marine renewable energy developments on salmon, sea trout and European eel. Scottish Natural Heritage Commissioned Report No.401 (available at www.snh.org.uk/pdfs/publications/commissioned_reports/401.pdf) and Gill A. B., Bartlett M. and Thomsen F. (2012) Potential interactions between diadromous fishes of U.K. conservation importance and the electromagnetic fields and subsea noise from marine renewable energy. *Journal of Fish Biology* 81, 664–695, with Corrigendum in *Journal of Fish Biology* (2012) 81, 1791 (*Journal of Fish Biology* papers are available online through www.wileyonlinelibrary.com)).
5. Because of increased knowledge on the wide movements of salmon at sea, there would also now generally be an expectation that some sort of consideration with respect to salmon SACs would also be required even if there are none in the immediate vicinity.

SPR’s current submission makes the following unjustified assertion in 2014 NTS 4.5.3. “Potential impacts. Few studies have considered specifically the effects of offshore renewables installations on anadromous fish species. However, available information has been reviewed and indicates that any effects on such species would be negligible.”

These are only brief comments, as it may be that it is only the significance of changes to the original application which is to be considered. However, it could be argued that, while non-significant changes to the physical specifications of the development can be accommodated, that a significantly extended operational timeframe as requested in the current case would require the assessment in general to be updated. If LOT takes this view, please advise and I will make a clearer statement on what is required in respect of diadromous fish.

Regarding SEPA’s comments that it anticipates that the development would have at worst minor effects on “marine fish”, no information is provided in support of the comment.

The comments provided by other parties, which are also in G:\renewables are also of interest.

SNH has not considered fish in its otherwise detailed response. However, SNH has asked in connection with Natura sites that the Environmental Monitoring and Mitigation Plan will include methods for monitoring seal behaviour around the array and the detection of potential collisions, to potentially inform an adaptive management approach and that a collision risk assessment and cumulative impact assessment would help to quantify the level of risk black guillemot and shag. It has also advised that post construction monitoring is required to understand bird behaviour

around the tidal array and detect any collisions. I would note that there may be opportunities for observational or other work in connection with assessing risk to diadromous fish too, perhaps particularly as this is a demonstration project. Again I can expand on this, if useful.

The application mentions (eg SEI 1.2) that SPR also has a lease option for a substantial tidal project at Ness of Duncansby in the Pentland Firth and that the Sound of Islay development will provide technical, environmental and commercial learning which will be essential to facilitating the deployment of projects in the Pentland Firth. I made comments on the Ness of Duncansby proposal in connection with scoping about 18 months ago. I have heard nothing and knowledge and thinking have moved on a bit since then. If fresh input at this stage on diadromous fish would be useful to SPR, please let me know.

Best wishes.

Ross

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Copied to Paul for record keeping purposes

From: Ford A (Alexander)
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Subject: 002/TIDE/SPR - 2: MS LOT to MSS: ScottishPower Renewables: Sound of Islay Demonstration Tidal Array: ES Consultation 1 Week After Reminder: 16 July 2014

<< File: Sound of Islay Consultation_1 week after reminder letter.pdf >>
Paul,

Please see attached 1 week after reminder letter for the consultation on the applications from Scottish Power Renewables: Sound of Islay Demonstration Tidal Array.

I have received responses from Andronikos, Kate, Mike, Anna and Anne. I have not received a response as yet from those I have copied in.

To those cc'd – As Paul is now away on Alba, and the possibility he is not able to pick up this email, please can each of you respond as directed in the letter to ms.marinelicensing@scotland.gsi.gov.uk.

Many thanks
Ali

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