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Sent: 04 June 2014 11:13
To: RFurlong@ScottishPower.com; MS Marine Licensing; planning.aberdeen@sepa.org.uk; Richard.Kerr@argyll-bute.gov.uk
Subject: SEPA Response to Consultation Reference Islay Tidal
Attachments: PCS133361Response.doc

Thank you for consulting SEPA on the above proposal. Please find our response attached.

Where applicable this email has been copied to the agent and/or applicant.

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Our ref: PCS/133361
Your ref: Islay Tidal

Alexander Ford
Marine Licensing Casework Officer
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If telephoning ask for:
Alison Wilson

4 June 2014

By email only to: ms.marinelicensing@scotland.gsi.gov.uk

Dear Mr Ford

ELECTRICITY ACT 1989 (as amended)

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 ACT (SCOTLAND) 1997 (AS AMENDED)

APPLICATION FOR:

- **CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 (AS AMENDED), AND A MARINE LICENCE UNDER PART 4 OF THE MARINE (SCOTLAND) ACT 2010 TO CONSTRUCT AND OPERATE A DEMONSTRATION TIDAL ARRAY IN THE SOUND OF ISLAY, and**
- **A DIRECTION THAT PLANNING PERMISSION FOR THE ONSHORE DEVELOPMENT BE DEEMED TO BE GRANTED**

Thank you for your consultation e-mail which SEPA received on 26 May 2014. We **object** to this application on the grounds of a lack of information on potential adverse impacts on peatland and/or wetland. We will be pleased to review this objection if the issues detailed in Section 1 below are adequately addressed.

We also ask that the **conditions** in Section 2.1 and 3.1 be attached to the consent. If any of these will not be applied, then please consider this representation as an **objection**. Please also note the advice provided below.

Advice for the determining authority

1. Disruption to wetlands including peatlands

- 1.1 We previously provided pre application advice to the applicant on 1 May 2014 on this aspect of the proposals. We requested the applicant undertake a WFD95: A Functional



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Wetland Typology for Scotland' SNIFFER (2009) survey to help identify wetlands and a peat depth survey and peat management plan.

- 1.2 We have assessed Chapter 9 Terrestrial Ecology and Appendix 9.1 Ecological Survey Report and Impact Assessment of the Environmental Statement, dated April 2014. Unfortunately insufficient information is provided to enable us to determine that there will be no adverse impact on peatland and/or wetland and as such we **object** to this aspect of the proposal due to a lack of information. To enable us to consider removing our objection more detailed information, as detailed below, on the impact of infrastructure on sensitive wetlands should be submitted along with a peat management plan.
- 1.3 We will require justification of the siting of the substation. Currently, it is within Annex 1 blanket bog habitat on deep peat substrate. Moving the building 25-50m to the South East would avoid the blanket bog area completely and not increase impact other sensitive receptors.
- 1.4 The mitigation in Table 9.2 states that a peat survey will be conducted and a peat management plan will be produced. The ecology report states that in the areas of blanket bog that the peat is 2m depth in one area and 1m depth in the area under the substation. A peat management plan and assessment of what mitigation is required to protect the groundwater and annex 1 habitats needs to be provided.
- 1.5 The peat management plan should include confirmation of if SPR can microsite or move the location of the infrastructure to avoid the deeper areas of peat, to minimise the amount of peat disturbed and the amount of peat to be re-used on site or disposed of offsite. Additionally there are important waste management implications of measures to deal with surplus peat as set out within our [Regulatory Position Statement - Developments on Peat](#). Landscaping with surplus peat (or soil) may not be of ecological benefit and consequently a waste management exemption may not apply. As such full details of peat volume extraction and reuse should be provided to demonstrate proposed re-use on site or disposal is acceptable. Further advice is provided for the applicant in Section 5 below.
- 1.6 In relation to the access track the functional wetland typology survey, and if required NVC surveys, should identify where permeable track construction is needed. SPR should then ensure that the track is made permeable in the appropriate locations.

2. Flood risk

- 2.1 We note from the ES that "a new section of track, with a maximum running width of 5m, will be constructed to join up the existing track and the substation site." This new section of track appears to cross the Sruthan na Traighe Baine watercourse. In summary therefore we have no objection to the proposed development on flood risk grounds provided a **condition** is attached to any grant of consent ensuring that any proposed new/upgraded access track watercourse crossings are designed so that they can convey the 1 in 200 year plus climate change design flow to ensure they do not have a detrimental impact on floodplain storage and conveyance. If a condition to secure this is not attached to any grant of consent then please consider this representation as an **objection**. Notwithstanding this we would expect Argyll & Bute Council to undertake their responsibilities as the Flood Prevention Authority.

- 2.2 From planning drawings contained within the ES it is acknowledged that the majority of the development (the turbines) is located off shore. It is acknowledged that these need to be off shore for operational reasons.
- 2.3 Scottish Planning Policy (SPP) states in paragraph 203, that “For planning purposes the functional flood plain will generally have a greater than 0.5% (1:200) probability of flooding in any year. Development on the functional flood plain will not only be at risk itself, but will add to the risk elsewhere.” Built development should not therefore take place on the functional flood plain. It is also stated in SPP exceptions may arise if a location is essential for operational reasons and we would therefore view this development as an exception under SPP.
- 2.4 It is noted however that the proposed access tracks will cross some minor watercourses. We would therefore request that these crossings are designed to convey the 1:200 year flow or as a minimum have a neutral effect on flood plain storage and conveyance. The ES States “SPR is committed to undertaking water crossings in a manner which will not impact on flood plains, storage and conveyance. To achieve this SPR will consult with SEPA during the final detailed design phase of the project to address issues and concerns regarding the design.” As per Section 2.1 above we therefore request that this aspect of the proposal is covered by condition.
- 2.5 Transitions pits, substations and on-shore built development should be located and designed to have a neutral effect on floodplain storage and conveyance. We would also recommend the use of water resilient materials and forms of construction throughout the development.
- 2.6 For information, an approximate 1 in 200 year water level for the area is 3.25mAOD based on extreme still water level calculations using the CFB Method. This does not take into account the potential effects of wave action, funnelling or local bathymetry at this location. We also recommend that the applicant contact the Flood Prevention Authority with regard to the appropriate levels of freeboard for the area.

Caveats & Additional Information for Applicant

- A. The SEPA Flood Maps have been produced following a consistent, nationally-applied methodology for catchment areas equal to or greater than 3km² using a Digital Terrain Model (DTM) to define river cross-sections and low-lying coastal land. The maps are indicative and designed to be used as a strategic tool to assess flood risk at the community level and to support planning policy and flood risk management in Scotland. For further information please visit http://www.sepa.org.uk/flooding/flood_maps.aspx.
- B. We refer the applicant to the document entitled: “*Technical Flood Risk Guidance for Stakeholders*”. This document provides generic requirements for undertaking Flood Risk Assessments and can be downloaded from www.sepa.org.uk/flooding/planning_flooding.aspx. Please note that this document should be read in conjunction Policy 41 (Part2).
- C. Our Flood Risk Assessment checklist should be completed and attached within the front cover of any flood risk assessments issued in support of a development proposal which may be at risk of flooding. The document will take only a few minutes to complete and will assist our review process. It can be downloaded from www.sepa.org.uk/flooding/planning_flooding/fra_checklist.aspx

3. Pollution prevention and environmental management

- 3.1 We welcome the recognition of potential impacts during the construction phase and the proposed mitigation principles and pollution prevention measures set out in the ES. Some of the proposed measures relate to works which may be regulated by us, however, many of the works will not be regulated by us and need to be covered by condition. We therefore **request** that a condition is attached to any grant of consent requiring that a site specific construction environmental management plan is submitted, agreed and implemented. If such a condition is not to be attached to any grant of consent, please consider this as an **objection** by us. The wording below is suggested to assist:

That no development shall commence on site until a site specific Construction Environmental Management Plan has been submitted and approved in writing by the Determining Authority in consultation with [SEPA, SNH or other agencies as appropriate]. All works on site must be undertaken in accordance with the approved CEMP unless otherwise agreed in writing with the Determining Authority.

Informative: It is recommended that the CEMP is submitted at least 2 months prior to the commencement of any works on site; this is to allow the necessary agencies sufficient time to fully review the mitigation proposals to avoid any potential delays to the project moving forward.

Reason: In order to minimise the impacts of necessary construction works on the environment.

- 3.2 For further guidance on what should be included in the CEMP is provided for the applicant in Section 6 below.

4. Impact on marine environment

- 4.1 Due to the type and scale of the development and substrate type in the sound we do not foresee any issues with the development from a morphological perspective. Impacts on benthic ecology are expected to be of low magnitude and the significance is expected to be negligible. We would anticipate the proposed development will have at worst minor effects on marine fish and shellfish resources and negligible effect on intertidal.

Detailed advice for the applicant

5. Disruption to wetlands including peatlands

- 5.1 The Peat Management Plan should include:
- a) A detailed map of peat depths (this must be to full depth) with all the built elements overlain so it can clearly be seen how the development avoids areas of deep peat. The peat depth survey should include details of the basic peatland characteristics, including a break down of acrotelmic, catotelmic and amorphous peat.
 - b) A table showing where surplus peat will be generated and what the quantities will be.
 - c) A table showing what quantity of this surplus peat will catotelmic and what quantity will be acrotelmic.
 - d) A map showing where any temporary peat storage areas will be located and how these storage areas, along with any associated access roads, avoid any watercourses,

groundwater dependant terrestrial ecosystems or other sensitive areas. In addition details should be submitted of how the storage areas will be constructed, calculations demonstrating the need for these storage areas, how thick the peat will be stored, what types of peat will be stored and how the peat will be maintained fit for re-use. This information may also be of interest to geotechnical engineers assessing the peat stability proposals. Please note that any soils or peat stored for greater than 3 years will require a permit under The Landfill (Scotland) Regulations 2003.

- e) A table demonstrating the principles of where catotelmic peat will be re-used and approximately how much will be re-used including details of width and thickness.
- f) A table demonstrating the principles of where acrotelmic peat will be re-used and approximately how much will be re-used including details of width and thickness.

5.2 We would expect all these proposals to be in accordance with [Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste](#) and our [Regulatory Position Statement – Developments on Peat](#).

5.3 An example of a peat balance table is enclosed in Appendix 1 of this letter however this is just an example and the applicant may have a better way of illustrating the required peat information. The use of a table often illustrates where further peat minimisation is necessary and where best to re-use any surplus peat.

5.4 In our experience there a number of common issues which we often query within Peat Management Plans and therefore we wish to take the opportunity to highlight these below so that they can be addressed in the Peat Management Plan.

- a) Any proposals for road shoulders should follow the best practice guidance detailed in Pages 14 and 15 of the Scottish Renewables [Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste](#), Page 27 of the Scottish Natural Heritage (SNH) and Forestry Commission (FCS) [Floating Roads on Peat](#) guidance and Pages 38 and 39 of SEPA, SNH and Scottish Renewables and FCS guidance [Good practice during windfarm construction](#). Please note that only fibrous peat is likely to be suitable for battering road verges. Any landscaping or road batters should be limited to the areas of ground already disturbed.
- b) Details of where alternate construction techniques have been used such as floating roads should be submitted and then this should be detailed within the Peat Management Plan as it shows how the disturbance of peat has been minimised where possible. For example this could be simply shown on a map showing the location of floating or upgraded roads alongside a peat balance table.
- c) Where peat is re-used details of how the hydrology and drainage will be managed to maintain the peat integrity should be detailed. For example how will peat turves be used, how will hydrology be maintained to prevent drying out and subsequent oxidisation?
- d) Where it is proposed to re-use peat for any borrow pit restoration or peat land restoration works, details of the target National Vegetation Community and how the drainage will be designed to achieve and maintain this vegetation should be submitted.

5.5 By adopting an approach of minimising disruption to peatland, the volume of excavated peat can be minimised and the commonly experienced difficulties in dealing with surplus

peat reduced. The generation of surplus peat is a difficult area which needs to be addressed from the outset given the limited scope for re-use.

- 5.6 There are important waste management implications of measures to deal with surplus peat as set out within our [Regulatory Position Statement - Developments on Peat](#). Landscaping with surplus peat (or soil) may not be of ecological benefit and consequently a waste management exemption may not apply. In addition we consider disposal of significant depth of peat as being landfilled waste, and this again may not be consentable under our regulatory regimes. Experience has shown that peat used as cover can suffer from significant drying and oxidation, and that peat redeposited at depth can lose structure and create a hazard when the stability of the material deteriorates. This creates a risk to people who may enter such areas or through the possibility of peat slide and we are aware that barbed-wire fencing has been erected around some sites in response to such risks.
- 5.7 It is therefore essential that the scope for minimising the extraction of peat is explored and alternative options identified that minimise risk in terms of carbon release, human health and environmental impact. Our [Planning and Energy webpage](#) provides links to current best practice guidance on peat survey, excavation and management.

6. Pollution prevention and environmental management

- 6.1 As per Section 3 above we have requested the submission of a site specific CEMP by condition. The CEMP should address as a minimum the following issues:
- Drainage strategy - details of the temporary onshore construction sustainable drainage system (SUDS) and any finalised site SUDS along with supporting drawings. Further guidance on developing a surface water drainage scheme can be found on our [website](#). Temporary foul drainage facilities for workers on site;
 - As per Section 1.6 above - details of the location and design of permeable track construction;
 - Fuel and chemical storage arrangements;
 - Any concrete production and use;
 - Supporting drawing showing the above and key site specific sensitive receptors, such as watercourses, in relation to the development and adequate buffers;
 - Timing of works - heavy construction should be staged to avoid periods of high rainfall if possible;
 - Waste management - developers may need to dispose of significant quantities of waste during the construction phase. This can include waste soils, peat and surplus construction materials. We note the ES states that debris or waste materials arising during the course of the cabling works are to be removed from the site for disposal at an approved location above the Mean High Water Springs. Wherever possible the waste hierarchy of reduce, reuse and recycle should be encouraged. All waste streams associated with the works should be identified along with appropriate means of disposal;
 - Environmental management – identification of mechanisms to ensure subcontractors will be well controlled and be aware of relevant environmental issues. This should include details of ongoing monitoring and emergency procedures/pollution response plans and the provision of spillage kits.
- 6.2 No significant hydrogeological issues with the proposed development have been identified at this stage, provided that the detailed design and management of the works is undertaken appropriately. Full details of what should be included in the CEMP can be found on our

[website](#) or by contacting a member of the Operations team in the Lochgilhead SEPA office.

Regulatory advice for the applicant

7. Regulatory requirements

- 7.1 We highlight that any engineering activities in the water environment (such as the proposed watercourse crossings), discharges and abstractions will require authorisation under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). Where watercourse crossings cannot be avoided our preference is for bridging solutions or bottomless or arched culverts which do not affect the bed and banks of the watercourse. We would request that the applicant contact the Operations team in the Lochgilhead SEPA office for further advice on this aspect of the proposal and for advice on consentability under CAR.
- 7.2 Any dewatering during excavations should also be in compliance with CAR General Binding Rule (GBR) 2 and GBR 15. Abstraction of groundwater in quantities greater than 10m³/day may require CAR authorisation depending on the scope and duration of the works. Details should be provided of how any dewatering will be managed, the amount of groundwater proposed to be abstracted and the anticipated timescales within the requested CEMP.
- 7.3 For toilet facilities guidance and best practice advice for the applicant can be found in PPG4 Disposal of sewage where no mains drainage is available.
- 7.4 Details of regulatory requirements and good practice advice for the applicant can also be found on our website at www.sepa.org.uk/planning.aspx. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the operations team in your local SEPA office at:

Kilbrandon House, Manse Brae, Lochgilhead, PA31 8QX. Tel: 01546 602876

If you have any queries relating to this letter, please contact me by telephone on 01224 266656 or e-mail at planning.aberdeen@sepa.org.uk.

Yours sincerely

Alison Wilson
Senior Planning Officer
Planning Service

Copy to applicant: Rachel Furlong, Scottish Power Renewables at RFurlong@ScottishPower.com
Copy to council case officer: Richard Kerr at Argyll & Bute Council at Richard.Kerr@argyll-bute.gov.uk

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](#).

