

Our Ref: BT/SMF
L4-CONS
Your Ref:

Ms Fiona Thompson
Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

If telephoning ask for:
Benedict Tustin

3 August 2010

Dear Ms Thompson

**THE WATER ENVIRONMENT (CONTROLLED ACTIVITIES) (SCOTLAND) REGULATIONS
2005
SECTION 36 APPLICATION FOR A DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY,
ARGYLL**

I refer to your letter dated 30 July 2010 regarding the above application.

The proposal to operate the Sound of Islay demonstration tidal array does not require authorisation under the Water Environment (Controlled Activities) (Scotland) Regulations 2005.

SEPA may comment on the environmental statement provided by the developer but to date a copy of this has not been received at the local office. This may have been sent direct to SEPA's Planning department in Aberdeen copied into this correspondence.

I trust that this letter is satisfactory for your present requirements. If you wish to discuss this matter further please don't hesitate to contact me at the SEPA Lochgilphead office.

Yours sincerely



Benedict Tustin
Environment Protection Officer

cc: SEPA Planning, Aberdeen



Chairman
David Sigsworth

Chief Executive
Dr Campbell Gemmell

Lochgilphead Office
2 Smithy Lane, Lochgilphead PA31 8TA
tel 01546 602876 fax 01546 602337
www.sepa.org.uk

SEPA
Lochgilphead
Argyll and Bute
PA31 8TA

RECEIVED

30/07/2010

Dear Sirs/Madam

**ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
REGULATIONS 2000**

**SECTION 36 APPLICATION FOR A DEMONSTRATION TIDAL ARRAY, SOUND OF
ISLAY, ARGYLL**

On 26th July 2010, ScottishPower renewables UK Limited (SPRUKL) submitted an application under section 36 of the Electricity Act 1989 for the Scottish Ministers' consent to construct and operate the Sound of Islay demonstration tidal array, Argyll.

As required by statute details of the application will be published in the local and national press. In this particular application, the adverts will appear in The Edinburgh Gazette, The Glasgow Herald, The Oban Times and The Illeach.


I would be grateful for SEPA's advice on matters relating to protection of the water environment in this particular case, and specifically –

- (a) whether an authorisation under the 2005 Regulations will be required for this activity, and, if so, whether SEPA has received an application from the developer to date; and
- (b) on the basis of available information, whether SEPA would expect to grant authorisation under the 2005 Regulations in this case.

The developer will have sent you a copy of the environmental statement which includes a non technical summary. The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 allow for representation up until 28 days after the last advert is published. The closing date for representations is 30th August 2010.

Can you please send your response electronically to Env_Prot@marlab.ac.uk

Yours sincerely


Fiona Thompson

Directorate of Airspace Policy

Scottish Government (via e-mail)
Marine Scotland

2 August 2010

Reference: ERM/DAP/Planning/SoundOfIslayTidalSite

Dear Sirs

Proposed Demonstration Tidal Array at the Sound of Islay – Section 36 Application

The Civil Aviation Authority (CAA) has been advised of the Scottish Power Renewables' Section 36 Application concerning the Sound of Islay Demonstration Tidal Array. We have been advised that associated comment should be forwarded to Marine Scotland. I hope the following is useful.

As advised at the scoping stage, it is not believed that tidal power schemes, in general, present a hazard to civil aviation. Indeed, notwithstanding any consultation requirement related to Scottish Circular 2/2003, given that it would appear that the Sound of Islay development would be a predominantly submerged development, involving minimal construction extending only a few meters above the surface, we would not wish to make any associated observations.

I trust this comment is useful. Please do not hesitate to get in touch should the Government requires further civil aviation regulatory comment.

Yours sincerely,

{original signed}

Mark Smailes
Off Route Airspace 5

Civil Aviation Authority

CAA House 45-59 Kingsway London WC2B 6TE www.caa.co.uk
Telephone 020 7453 6545 Fax 020 453 6565 marks.smailes@caa.co.uk

Unknown

From: [REDACTED]@bt.com
Sent: 09 August 2010 10:37
To: Environmental Protection
Subject: Sound of Islay
Follow Up Flag: Follow up
Flag Status: Completed

Dear Sir/Madam

Thank you for your letter of 30/07/2010 regarding the construction and operation of the Sound of Islay demonstration tidal array, Argyll

We have studied this wind farm proposal with respect to EMC and related problems to BT point-to-point microwave radio links.

The conclusion is that, the Wind farm Project indicated should not cause interference to BT's current and presently planned radio networks.

Regards

[REDACTED]

BT Operate
Radio Frequency Allocation & Network Protection
pp 4AA CTE, Newcastle Central Tel Exch (TEL-NE), Carliol Square, Newcastle upon Tyne. NE1
1BB. Tel: 0191 2696372 Fax: 0191 261 6458 e-mail: [REDACTED]@bt.com

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From: Robertson, John [John.Robertson@thecrownestate.co.uk]
Sent: 09 September 2010 15:18
To: Alan Keir
Cc: Stevenson, John
Subject: FW: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL
Follow Up Flag: Follow up
Flag Status: Completed

Alan

Thanks for chasing this. I can confirm that we have received a copy of the Scoping Report from the developer and that we do not intend to make a response.

Regards

John Robertson
Development Manager (Wave & Tidal)



The Crown Estate
6 Bell's Brae
Edinburgh EH4 3BJ
Tel: 0131 260 6096
Mob: 0758 434 9168
Fax: 0131 260 6090
Email: John.Robertson@thecrownestate.co.uk
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Please think - do you need to print this email?

From: Stevenson, John
Sent: 06 September 2010 16:39
To: Robertson, John
Subject: FW: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

FYI & action.

John

From: Alan Keir [mailto:A.Keir@MARLAB.AC.UK]
Sent: 06 September 2010 16:31
To: Stevenson, John
Subject: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

19/10/2012

Dear Mr Stevenson

ELECTRICITY ACT 1989

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2000

SCOPING OPINION REQUEST (*REMINDER*) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

I write to remind you that the deadline for comments on the above works was 30th August 2010. The developer should have already sent you a copy of their Scoping Report.

As comments were not received by this date, it will be assumed that you are content with the proposals. If, however, you were unable to meet this deadline, please contact us to arrange an extension of the consultation period.

An email reply can be sent to env_prot@marlab.ac.uk or by hard copy to the address below.

If you require further information please let us know.

Many thanks

Alan Keir

Licensing Officer

Marine Scotland – Marine Policy and Planning

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19/10/2012

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Clyde Fishermen's Association

Secretary

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Isle of Islay
Argyll
PA42 7ED

Tel 01496 302 401

e-mail [REDACTED] [@clydefish.org](mailto:[REDACTED]@clydefish.org)

28 February 2011

Mr James McKie
Licensing Operations Team
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Sound of Islay Demonstration Tidal Array

Comments on Environmental Statement

Dear Mr McKie

The Clyde Fishermen's Association and other non-represented fishermen have met with Scottish Power Renewables and the Islay Energy Trust on numerous occasions over the last couple of years. We have, in good faith, given information to the developer which we believed would be used in the formulation of their documents and applications for consents.

We find on reading the Environmental Statement (ES) that the developer appears to be attempting to discount and displace the fishing industry. There have been meetings to discuss possible mitigation but very little of the output of those meetings is contained in the ES, in fact it appears there is an attempt to downplay the significance of the complete displacement from an area larger than the development area. The developer claims no mitigation required, the fishing industry has a very different view, we will not be displaced without mitigation.

The fishing industry met with the First Minister on the 11th February, the industry (author was present) received an assurance from the First Minister that proper mitigation will take place.

The developer claims no mitigation suggested, this is completely untrue and may be an attempt by the developer to avoid any expenditure on mitigation.

We rely on Marine Scotland to ensure the fishing industry is considered fairly and would ask that no consents be issued until the developer faces their responsibility towards an industry they would cause financial loss.

I refer first to the Non Technical Summary:

4.2

Marine Fish/Shellfish

By their own admission, SPR state that there has been no physical surveys completed for fisheries within the Sound of Islay. They then go on to claim a negligible or no significant effect due to noise and vibration.

If SPR have no baseline data it is not understood how they can claim no effect. While the fishing industry accept there will be minimal disturbance during the construction phase as compared to other renewable projects already established, we are informed by colleagues that the effect on fisheries is disastrous. We are informed that experience in Windfarm locations has shown a complete failure of the once prolific fisheries. We are not able to determine whether the effect has been caused by the construction phase or the operational phase of these developments.

As the fisheries have not recovered in those locations after a number of years we must assume that the operational effects of the wind turbines has a very real and damaging effect on fish and shellfish species.

As the Sound of Islay development will see the underwater installation of similar devices, we can assume the operational noise and vibration effects to be greater than that of wind turbines. We cannot accept the logic of SPR in their claim for negligible or no significant effect. SPR appear to be making assumptions based on no data.

4.3

Anadromous Fish

SPR claim no evidence to suggest that anadromous fish use or transit the Sound of Islay. I know from personal experience that the anadromous fish do use the Sound of Islay. Again SPR claim negligible effects but this is based on no studies being carried out and a complete lack of knowledge on the subject. Do SPR believe that if they have no knowledge then the problem does not exist?

The potential effect on migratory fish of any species must be assumed to be high, the turbine installations will cause great noise and vibration, we do not know how it will effect fish migrations without the proper studies being carried out.

4.6

Commercial Fisheries

SPR claim extensive consultation completed with local fishermen. This is not the case, consultation is ongoing with no satisfactory agreed position.

As no mitigation measures are yet agreed, SPR cannot claim there are any appropriate mitigation measures. Should mitigation measures be eventually agreed, the impacts on the local shellfish fishery in this area will remain extreme and adverse. There is a great safety concern that any contact of fishing gear, while hauling, with the turbines, will cause the loss of a fishing vessel. The assumption therefore is a complete displacement of fishing from the development site and a large area both North and South of the site. Vessels drifting with the strong tide while hauling are in danger of entanglement with the turbines.

While there is no agreement on mitigation for the displacement effects of this development on the fishing industry, the safety concerns for human life must outweigh the developers desire for consents to progress the development.

Due to the reports of fisheries collapse in areas of windfarms, we cannot accept the claim that there can be any beneficial effects from this development.

4.9

Tourism, recreation and socio-economics.

The fishing industry, which is a significant part of the Island's economy has not been considered in this section. To claim there will be no long term adverse effect on existing marine and coastal activities relates only to tourism and recreation. SPR are obviously ignoring the detrimental effects on the fishing industry, and therefore the economy of the Island.

SPR go on to claim a new attraction for Islay and Jura. This is difficult to understand given that the development will be entirely underwater and also inaccessible to divers.

4.18

Shipping and Navigation

Fishing vessels, whether underway or actively fishing, have a duty to carry out safe navigation. Given the likelihood of complete exclusion of fishing from the site while fishing, this effect should also be listed under this heading as a detrimental effect. Navigation while fishing will be completely excluded and must be considered an extreme effect.

5.0

Conclusion

As there are no agreed mitigation measures with the fishing industry it is impossible to claim there will be no unacceptable long term impacts. The long term impacts on the fishing industry within the Sound of Islay will be very high, SPR admit to making an application for designation of the area as a “No Fishing and No Diving area”. No level of mitigation will allow the continuance of fishing. To date there has been no agreement between the developer and the fishing industry. The fishing industry must therefore demand, as safety of life is an issue and the future of business success is threatened, that no consents can be awarded until the developers address their responsibilities towards those they would affect.

We would repeat, safety of life is at risk.

Chapter 9

Marine Mammals

There has been a shore based study of birds and mammals in the Sound of Islay. The fishing industry is kept informed of such studies at sea and is of the opinion that the studies are completely ineffective. The time spent at sea by the survey vessels is such that no useable data can be collected. A study which spends less than 24 hours in a designated site per month will not collect any meaningful data. If the Sound of Islay study has applied the same time sampling then the data is far from complete. On further reading of the ES we find that very little time has been spent in the study area. What can be determined is that the number of reported sightings of marine mammals is highest on the ferry routes. Fishermen know the level of activity of mammals in the area as they spend most time at sea. The South West Scotland area is an area of high dolphin, porpoise and whale activity. Some would say that the number of seals in the area is excessive and uncontrolled.

The developer suggests visual surveys in the first year after deployment to monitor changes. If the baseline data is incomplete there is nothing to compare the ongoing survey data against.

Chapter 11

Marine Fish and Shellfish Resources

11.2

As already stated, the establishment of windfarms has seen the collapse of fisheries. The developer does not know what effects the construction noise and vibration will have on fish and shellfish within the site and its surrounding area. To claim minor effects is to ignore the experience of previous developments. Mitigation may not be possible but that is no reason to downplay the possible effects.

11.7

All shellfish caught commercially within the Sound are of significant importance.

11.8

For all the important commercial species, they have spawning grounds, nursery grounds, feeding grounds and over wintering area within the Sound.

11.25

The CFA have been critical of the information gaps in the SEA.

11.32

Claims that scallops are taken rarely within the study area are inaccurate. Landings value in excess of £5,000 have been taken by Islay vessels per day from within the study area and landed at Port Askaig. On occasions, catches valuing in excess of £3,000 have been taken by individual Islay vessels per day from within the study area and landed at Port Askaig. To claim scallops are not a commercially important natural resource is a matter of opinion. If the developer is stating that £5,000 per day is negligible then this must be questioned. All figures quoted are verifiable.

11.34

Information regarding the spawning and hatching of velvet crabs is incorrect. We can only assume that as the benthic survey identified only two velvet crabs, in an area known to be prolific, the survey must be ineffectual. Velvet crabs are fished commercially less than 100 metres from the nearest potential turbine location.

11.36

The life cycle of the brown crab as stated is incorrect.

11.40

Although the depth range where lobsters are found does not have a bearing on the development sight, the claim that lobsters are found to depths of 60m shows a complete lack of knowledge of this species.

11.41

Scallops have been taken by divers commercially, 200 metres from the nearest potential turbine location, and also within Coalila Bay, 100 metres from the nearest potential turbine location.

11.90

The study area is known to be spawning areas for a great number of commercially exploited species. Why would only two be listed?

11.93

When considering the impacts on spawning grounds, and many species are omitted from that consideration, would the same mitigation be appropriate if all affected species were included?

11.95

To claim that the affected nursery areas would be 0.001%, is that a percentage of all known nursery areas, or is it a percentage of nursery areas within the study area. Is this another attempt to deceive? The development site is surely a much greater percentage of the study area. Impacts should be considered on the local area, not on the total area of Scottish waters.

11.179

Table 11.16 We question the assumption that the magnitude of impact of noise during the operational phase can be classified as low. We have not been convinced that the impact will be low, quite the contrary, the experience of the fishing industry with other renewable energy projects suggest the impact may be high and that the residual impact will be high.

Chapter 15

Commercial Fisheries

There are some misunderstandings or inconsistencies with in this chapter.

15.30

Scallop diving is regularly carried out to depths of 35metres.

15.37

The values attributed to various species taken from statistical rectangle are suspect. The author alone has taken in excess of £500,000 of scallop landings from this area in a five year time period. Given that there are in excess of 20 scallop vessels working regularly in this area, the values for various species must be questioned.

15.54

Landings of scallops at Port Askaig are significantly higher within the period than the paper suggests. The lack of accurate data must call into question the basis of the paper.

15.55

Scallops are an important species taken from within the study area, but not within the development site.

15.60

The list of vessels fishing within the study area is incomplete, there are a number of scallop vessels that both fish and land within the study area. Data collection is obviously poor.

15.65

Although the development site does not have any significant catches of velvet crabs, the nature of the danger to fishing vessels will exclude fishing from a far greater area than the development site. The paper neglects to identify this although the developer was advised of this during consultations. We must therefore draw the conclusion that data relevant to the fishing industry is being excluded from the document if it points to an adverse effect on the fishing industry.

15.68

The average earnings of the UK fleet are inaccurate when applied to the Islay fleet. Individual vessel accounts as presented to the tax authority will verify that the claim made in this section for the local vessels earnings to be true.

15.71

Data is inaccurate concerning the study area, it does however apply to the development site.

15.73

Navigational safety, while actively fishing or not, will extend to an area much greater than the development site. With this in mind and the exclusion from Coalila bay as stated in 15.74 the effect on fisheries is likely to be greater than the impact suggested in 15.75.

15.76

The sensitivity of the larger fishing vessels is likely to be low, but for the smaller vessels which fish this area during summer the impact is likely to be high. SPR are selective with the information relating to impacts.

While there are no agreed methods of installation as yet, and the impact on certain vessels will be high, consents should not be given until the agreement is reached. If consents are given before agreement on various issues the developer will not be obliged to reach any agreements with the fishing industry and will do as they please regardless of complaints.

15.78

The developer claims a low impact within the site. This may be true but the impacts will be felt by commercial fisheries in areas outwith the site.

15.79

The developer makes no mention of the agreed necessity, on safety grounds, to exclude fishing from the Islay shore adjacent to the site and extending both North and South. This appears to be a further attempt to downplay the significance of the disturbance.

15.81

Due to noise and vibration effects seen in windfarm sites it is likely that the loss of habitat may be significant, therefore the micro-siting will be ineffectual in mitigating this problem.

15.83

The entirety of the Sound of Islay is fished, the statement in this section shows a complete lack of understanding of the fishing industry. The loss of a fishing area does not mean that it can be recovered from another area. Fishing grounds are fished in rotation, a change in that pattern or rotation will cause catches to decrease. The impact on small vessels could be significant and cannot be claimed to be low for those vessels.

15.84

Mitigation, although the fishing industry can be flexible to a degree, this will depend on the mitigation agreed. To date there has been no agreement. The fishing industry believes that consents should only be given when those at risk from a development have been duly considered and agreement reached on the issues that will impact on those affected.

15.85

This statement gives no assurance that mitigation will be carried out. In fact it suggests that mitigation may not be carried out.

15.87

The statement suggests that fishermen will not be working upstream of any development, as the tide turns on a regular cycle this assumes that there will be no fishing either North or South of the site. As the tidal flow is very fast and a vessel may be trying to untangle fouled creels for some time, the assumption is that there will be no fishing in the Sound.

15.88

The assumption that the cost of lost gear can be spread throughout the local fleet is nonsense, an individual business will stand the loss and the impact to that business will be very high. To try to lessen the impact by spreading the magnitude of impact throughout the fleet is deceptive at best. There has been no agreement with the developer, despite consultation, on the possibility of replacement of gear lost due to the developers activity. To protect his business a fisherman will be tempted to try to recover his gear and may place himself and his vessel in danger. That danger does not currently exist and will only do so by the activity of the developer. As the fisherman will be operating legally, and licenced to do so, the developer must consider the added danger they will bring to other users of the sea. To allow consents before this situation is agreed will place the fishing industry in danger.

15.89

The magnitude of impact to a vessel losing gear will be high and the sensitivity of the receptor will again be high. The mitigations suggested do not address this point. The mitigations rely on the fishing industry displacing itself entirely from the area. Given the rate of tidal flow this could mean the whole of the Sound of Islay. As the industry is not compelled to displace itself the developer is ignoring their duty to mitigate.

15.91

As stated previously, the area lost to fishing for safety reasons could be much of the Sound. The developer attempts to downplay this problem by stating only a small area of the study area will be affected, the developer has agreed at consultation meetings that the affected area will be much greater than the development site. The developer now seems to be reversing their position.

15.92

This section again ignores the agreement with the developer that their activities will cause loss of fishing in areas far greater than the development site. The dangers posed by the unprotected turbines is such that all species fished in the area will be affected. This includes lobster, brown crab, velvet crab and scallops. The developer conveniently omits the scallop diving area immediately West of the development site. Although the depths of the scallop diving site are not as great as the development site itself, the danger of a diver drifting into the development site is very great. The scallop diving site is only 200 metres from the nearest turbine location, but while it lies outside the development site a diver would be carried into the nearest turbine in a very short time. Given the tidal flow rates, the time taken to drift from the scallop diving site to the nearest turbine would be less than two minutes.

15.93

This section is based on incomplete data and must be discounted. However the developer admits to lobster being of importance to the fishery but only considers the sensitivity to be medium to low. This is surely a contradiction in terms.

15.94

The developer again ignores that fact that long term displacement is of significance to individual businesses. There will be a high significance to those businesses. To suggest there is no mitigation required for the loss of much of the fishing area within the Sound is arrogant in the extreme and those deciding on consents must be aware that the developer is attempting to completely disregard and displace the fishing industry. As this very same developer is involved in an additional much larger renewable energy project in the Tiree area, the attitude of the developer must be called into question.

15.95

Mitigation has been suggested. That would be the compensation of losses withstood due to the direct effects of the development. The developer neglects to mention this in the document, we assume that it is not thought to be acceptable to the developer. This however, is no reason for stating that mitigation has not been suggested. Again we see an attempt at deception.

15.96

To claim that a 15 year total displacement of fishing activity is considered to be a low magnitude of impact is patently ridiculous. To force a business out of its area of operation on a permanent basis is completely unacceptable and must be considered the highest magnitude of impact.

15.97

To describe complete displacement as a small scale modification of activities is unacceptable.

15.98

Again the attempt to deceive is apparent. Compensation for losses incurred is mitigation. One dictionary defines mitigation as "programs intended to offset known impacts."

Impact 15.7

Loss of fishing gear. The same concerns apply as with the previous section. The period for possible loss of fishing gear is to be 15 years yet the developer goes on to claim an effect of negligible significance.

15.106

This section suggests a beneficial effect of excluding fishing from the area. As stated previously, the experience in other renewable sites is very significantly adverse over an extended period of some 5 years. Without long term studies into the effect on the species concerned within the area, this claim cannot be substantiated.

15.109

The effects on the fishing industry will be comparable with the construction phase and as such will be detrimental to our industry.

15.110

The cumulative effects of displacement from renewable energy sites is likely to cause the fishing industry great harm. The construction phases of each development may not be cumulative but the operational phases most certainly will be. The vessels that will be affected by the West of Islay Windfarm are the same vessels that will look to fish the Sound of Islay when the weather breaks in the late Autumn. The cumulative effects on those vessels will be very high.

15.111

While the DP Energy site West of Islay is not immediately adjacent to the Sound of Islay site, it is 2.3 miles from the SSE Windfarm site. The developer is very well aware of this but declines to include it in the consideration of cumulative effects. I have spoken directly with the developer about our concerns with the cumulative effects of all renewable energy proposals. No consents should be issued until this matter is investigated and included within the cumulative effects section of this document.

15.113

Complete displacement from an area of operation is described as minor or negligible significance impacts.

Unbelievable!!!!

ENVIRONMENTAL STATEMENT FOR SOUND OF ISLAY DEMONSTRATION TIDAL ARRAY. JULY 2010. PREPARED FOR SCOTTISH POWER RENEWABLES BY ROYAL HASKONING

We have considered the Environmental Statement and the assessment of the significance of potential impacts as they relate to Marine Fish and Shellfish (Chapter 11), Commercial Fisheries (Chapter 15) and the mitigation and management measures proposed (Chapter 24). We have also looked at technical appendices (15.1 – 15.4).

We are unable to offer comment on Socio economics, Tourism and Recreation (Chapter 20).

Marine Fish and Shellfish

The ES draws from a variety of sources, is well structured and presented and covers the Development and potential effects on marine fish and shellfish - including sedimentation, noise, EMF, alteration of hydrographic regime, smothering etc, very well. In general, we would agree with the findings of the assessment as summarised in Table 11.17.

Given the lack of detailed knowledge of abundance or migratory patterns of pelagic species (eg herring and sprat and possibly other fish species in the immediate area (paras 11.51 and 11.52) and that it is not possible to quantify the collision risk (para 11.1.61), we would have some concerns with the conclusion that collision risk is a *minor significant effect*. This seems to reflect mainly the local scale of the development and hence low sensitivity of the receptor. Given the novelty of the Development, that such collision risks have not been previously studied and are likely to be site specific, it would seem that some form of 'deploy and monitor strategy', akin to that proposed for elasmobranchs and mammals, might be appropriate.

Also we note there is no mention of contamination risk to marine fish and shellfish during the construction phase – such as might result from a pollution incident, or the use of lubricants, antifoulants and other chemicals on the devices when in operation. We assume that these have been considered elsewhere.

Note. Table 11.4. *Maja verrucosa* not found UK waters. Assume they mean *Maja squinado*.

Commercial Fisheries

The ES covers commercial fisheries aspects in some detail and analyses of a range of landings statistics are presented along with VMS data. On the basis of these and information obtained during local consultation, it is concluded that the area of the Development is fished primarily by creel vessels targeting a variety of crab species and lobster, particularly in winter. The Development and the no fishing zone around it will result in some loss of access to fishing grounds. We agree with the conclusion that this residual impact is minor, based on the size of the area and the relatively small number of boats fishing there - although the impacts on individual fishers could be more significant (50% of those interviewed or responding to the questionnaire expressed concerns about loss of grounds).

Cumulative effects of displaced fishing effort are considered at para 15.5.5, and considered to minor. There are however, several other sites in the vicinity of the Sound of Islay where renewable developments are being considered - listed at para 11.177.

Although we would agree there is currently 'no evidence to suggest any significant cumulative impact' - from the sound of Islay development per say, displaced effort resulting from a combination of developments could potentially increase pressure on stocks in adjacent waters and adversely affect fisheries and the livelihood of individuals fishing in the area. Cumulative impacts may require more consideration when and if other developments come on stream.

Anne McLay
Melanie Harding

Marine Scotland Science - Inshore Fisheries Group

6 September 2010



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By email : Env_Prot@marlab.ac.uk

cc: [REDACTED]@ScottishPower.com

01 September 2010

Dear Ms Fiona Thompson

SUBJECT: ELECTRICITY ACT 1989

**THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT)
(SCOTLAND) REGULATIONS 2000**

**SECTION 36 APPLICATION FOR A DEMONSTRATION TIDAL ARRAY PROJECT,
SOUND OF ISLAY, ARGYLL**

The Chamber of Shipping welcomes the opportunity to respond to the Environmental Statement sent to us on 30 July 2010 by post. We represent nearly 140 UK based ship owners and managers who collectively own around 900 ships, equivalent to 24 million gross tones and accounts for 90 percent of British shipping. This response reflects the consolidated views of our members who represent diverse range of operational and shipping interests around the UK coast and particularly in Scotland.

On reviewing the proposed application and the accompanying Navigation Risk Assessment, we would like to inform you that the Chamber has no objection to submit in return for construction of this demonstration project. But, we would like to advise that periodic dialogue with Calmac Ferries should continue to keep them informed with the progress on this project.



Promoting our maritime future

The Chamber of Shipping
Limited
Registered office as
above
Registered in England no.
2107383

We should also be kept informed with the scheduled plan of works and any development during the construction and or operational phases that may have an effect upon the safety of Navigation or commercial routing. To ensure that necessary arrangements, if any, can be made to minimize or avoid undue disruption to vessels transiting in close proximity to the site Marine Notices should be promulgated well in advance.

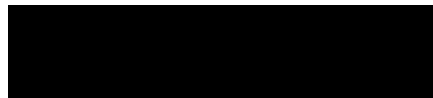
Navigational markings would be subject to review from the Northern Lighthouse Board and should conform to the IALA guidelines to ensure Safety of Mariner and paid for by the developers.

Furthermore, we should also be informed if there will be any deviation from either the proposed numbers or the siting of any of these turbines that may inadvertently lead to disruption or perhaps obstruction to the existing Ferry route or safe navigation of vessels using the Sound of Islay. It is also our understanding that;

- 1) Minimum clearance shall be kept to 15m from the tip of the blade to the sea surface;
- 2) Once the site is in operation – it would not disrupt or lead to any deviation to the vessels navigating through the Sounds, even if it means sailing over the proposed location;
- 3) During construction phase the site would not lead to any disruption to the normal routing of the Ferry operation in close proximity.

If you have any further queries then do not hesitate to contact me.

Yours sincerely,

A large black rectangular redaction box covering the signature of the sender.A smaller black rectangular redaction box covering the name of the sender.

Nautical Manager – Chamber of Shipping

Unknown

From: [REDACTED]@de.mod.uk] on behalf of DE-Safeguarding [Safeguarding@de.mod.uk]
Sent: 27 August 2010 12:26
To: Alan Keir
Subject: RE: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL
Follow Up Flag: Follow up
Flag Status: Purple

Alan,

Defence Estates safeguarding issued a no objection to Scottish Power Renewables on 10th August 2010.

I trust this helps,

Regards,

[REDACTED]
Assistant Safeguarding Officer - Statutory & Offshore
Defence Estates Safeguarding
Kingston Road
Sutton Coldfield
B75 7RL

[REDACTED]
Tel Civ: 0121 311 2274
Email: [REDACTED]@de.mod.uk

From: Alan Keir [mailto:A.Keir@MARLAB.AC.UK]
Sent: 24 August 2010 16:28
To: DE-Safeguarding
Subject: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

Dear Mr Evans

ELECTRICITY ACT 1989

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2000

SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

I would be grateful for any comments you have on the above proposed works by 30th August 2010. The developer should have already sent you a copy of their Scoping Report.

19/10/2012

An email reply can be sent to env_prot@marlab.ac.uk or by hard copy to the address below.

If comments are not received by this date, it will be assumed that you are content with the proposals. If you are unable to meet this deadline, please contact us to arrange an extension of the consultation period.

If you require further information please let us know.

Many thanks

Alan Keir

Licensing Officer

Marine Scotland – Marine Policy and Planning

Scottish Government | Marine Laboratory, PO Box 101| 375, Victoria Road | Aberdeen AB11 9DB

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Development Management and Strategic Road Safety

Trunk Roads: Network Management

Buchanan House, 58 Port Dundas Road, Glasgow G4 0HF
Direct Line: 0141 272 7338, Fax: 0141 272 7373
Robert.Souter@transportscotland.gsi.gov.uk



Energy Consents

FAO – FIONA THOMPSON

Your ref:

Our ref:

Date:
11 August 2010

Dear Ms Thompson

**ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESMENT) (SCOTLAND)
REGULATIONS 2000
SECTION 36 APPLICATION FOR A DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL**

I refer to your letter dated 30TH July 2010 and the accompanying reports, the comments of the Trunk Road Network Management Directorate (TRNMD) are as follows.

The proposed development represents an intensification of the use of this site however the percentage increase in traffic on the trunk road is such that the proposed development is likely to cause minimal environmental impact on the trunk road network. On this basis TRNMD have no comment to make.

I trust this meets your requirements.

Yours sincerely,

Robert Souter
Development Management

Electricity (Scotland) Act 1989

FISHERIES COMMITTEE

Fiona Thompson
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Graesser House
Fodderty Way
Dingwall Business Park
Dingwall IV15 9XB
Telephone: 01349 860367
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Secretary: Kerry Lancaster
e-mail: Kerry.Lancaster@sepa.org.uk

31 August 2010

Dear Ms Thompson

**ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
REGULATIONS 2000
SECTION 36 APPLICATION FOR A DEMONSTRATION TIDAL ARRAY, SOUND OF
ISLAY, ARGYLL**

I refer to your letter of the 30 July 2010 and accompanying ES for the Sound of Islay Demonstration Tidal Array. The Committee is grateful for the opportunity to scrutinise the proposed development and to make recommendations in terms of its statutory role for Section 36 applications (outwith the CAR regime).

Normally, the Committee would expect the developer of a proposed S 36 scheme (outwith the CAR regime) to consult it directly either before or at the time of making application to Scottish Ministers as required by the relevant legislation. In this case that has not happened and the Committee's views are being provided only in response to your consultation arrangements. Accordingly, the Committee has not had any opportunity to share its concerns and to discuss its recommendations with the developer.

The Committee is not opposed to this scheme in principle, but believes that further information or clarification is needed in some respects before the proposals can be fully endorsed. These concerns are described hereafter.

The Committee notes that the ES has stated that it will not consider the European eel because of its behavioural characteristics and ecological preferences and because it has not been identified as of local commercial importance. This is not acceptable considering its listing as Critically Endangered on the IUCN Red List, a UK BAP Annex 1 Priority species and it is a species of principal importance for the purpose of conserving biodiversity under the Natural Environment and Rural Communities Act 2006. There is also evidence that shows eels can make a temporary response to EMFs from cables during their migration. This causes a diversion from the path of movement (Westerberg and Lagenfelt, 2008). The Committee recommends that approval of this application be deferred pending further consideration of the possible impacts on eels by the developer.

The Committee recognises that the main issues of such a development are likely to be the effects on fish migration and draw much of their reasoning from the Scottish Marine Renewables Strategic Environmental Assessment 2007. As with all developments of this kind, impacts will occur at two stages (at least) of the project;

1) construction/installation and;

2) operation and as such mitigation should be formulated around key life cycle stages of fish species of conservation importance. The Committee recommends, therefore, that Scottish Ministers must be clear as to the developer's intentions regarding the following:

Construction/Installation

Timing of installation works is a key factor, as the impact of disturbance is likely to be greater during mating aggregations as well as at critical migration periods. Disturbance in this instance would be anticipated as marine noise, increased sediment and the associated impacts of smothering, turbidity and contamination.

Operational

The following potential impacts must be addressed by way of the planned monitoring regime to be implemented after the installation of the new structures:

- Collision risk
- Substratum loss
- EMF
- Visual
- Vibration
- Noise

This is because, notwithstanding the low and negligible risks stated in the ES for each of the above impacts, the Scottish Government has acknowledged that current research and knowledge is lacking to fully inform assessments such as this. Thus, the Committee recommends a precautionary approach in respect of monitoring associated with the operational scheme


The ES has provided limited spatial information for fish populations in the study area and has used very localised information to inform the likely impacts. This local information while of some value has not enabled a strategic overview of likely fish migration in the area. Much is known about the marine migrations of Atlantic salmon and sea trout, regionally and nationally and the Committee recommends a more detailed assessment before accepting the conclusions made in the anadromous fish chapter summary.

The Committee would also like to have seen the use of indicative distribution maps for fish populations combined with the known water depths inhabited by key species to inform the impact assessments

Regarding the proposal in the ES for a 'deploy and monitor' strategy once the installation becomes operational, the Committee is strongly supportive but it recommends that the number of stakeholders engaged in the preparation of this strategy should be increased to include not only SNH and Marine Scotland but also other relevant agencies and other interest groups such as the Atlantic Salmon Trust. This will ensure that monitoring is well supported, robust and suitable to build a more strategic picture as more schemes come about.

The Committee trusts this response will be helpful and will be pleased to discuss any of the concerns highlighted.

Yours sincerely



Kerry Lancaster
Secretary
Fisheries (Electricity) Committee

Scottishpower Renewables
Cathcart House
Spean Street
Glasgow
G44 4BE

Date: 29 July 2010

Our ref: GC/EIA/sound of islay/4.2.1.406

Hazardous Installations
Directorate

Kirsten Laidlaw

Chemical Industries
Belford House
59 Belford Road
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EH4 3UE

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Fax: 0131 247 2041
kirsten.laidlaw@hse.gsi.gov.uk

<http://www.hse.gov.uk/>

HM Principal Inspector of Health &
Safety
Dr G. A. Cook

Dear Sirs

**ENVIRONMENTAL ASSESSMENT TO CONSTRUCT AND OPERATE THE SOUND OF ISLAY
DEMONSTRATION TIDAL ARRAY AT ARGYLL.**

Thank you for your letter of 27 July 2010 enclosing a copy of the environmental statement for the proposed development at the sound of Islay.

Environmental Impact Assessments are concerned with projects which are likely to have significant effects on the environment. HSE's principal concerns are the health and safety of people affected by work activities. HSE has no comments on this environmental statement.

Yours faithfully

Kirsten Laidlaw
Admin Support



Development and Infrastructure Services

Director: Sandy Mactaggart

19TH NOVEMBER 2010

Dalriada House, Lochnell Street, Lochgilphead, PA31 8ST
Tel: (01546) 604840
Fax:(01546) 604822

Our Ref.: MA/RK
Your Ref.:

Contact: Richard Kerr
Direct Line: (01546) 604845

Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

FAO: Fiona Thompson

Dear Madam

**SECTION 36 - ELECTRICITY ACT 1989
DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY**

I refer to your consultation of 30th July 2010 in connection with the above. I apologise for only being in a position to reply at the close of the consultation period, but this has been as a result of awaiting a recent liaison meeting with Scottish Power at which the project at hand was discussed. This reply constitutes the consultation response of the Council as Planning Authority and incorporates comments received from the Council's Marine and Coastal Officer. A separate response has recently been sent to you independently by the Council's Biodiversity Officer.

This project was the subject of scoping consultation and the subject of response from the Council in August 2008. The Council is glad to see that the prospective developer appears to have addressed the various issues raised at that time in the production of their Environmental Statement. The submitted Environmental Statement appears to be a comprehensive investigation of the environmental impacts of the proposed development. The Council agrees with the methodologies employed and generally with the conclusions reached about the magnitudes of the individual impacts and accepts that the mitigation proposed is likely to be appropriate, considering this development is the first of its kind. The testing of a 1MW demonstration device at EMEC should further inform the conclusions reached in the Environmental Statement and assessment of impacts prior to the development works commencing.

This development is to be welcomed generally in that it will allow tidal array development in a relatively sheltered environment, providing learning that will assist in developing effective procedures for installation of the devices in more energetic marine environments.

There are a number of comments relative to individual matters which are listed by chapter below:



Chapter 8: Benthic Ecology – Risk of pollution incident during installation

The assessment in paragraph 8.63 of 'Impact 8.3: Risk of pollution incident during installation' appears questionable. Whilst the proposed controls will reduce the risk of a pollution incident, the sensitivity of the receptor is not reduced and therefore the overall effect of a pollution incident on benthic ecology, if an event occurred, is not likely to be of negligible significance. However, the overall rating would still probably be low and therefore the Council concludes that there should be no requirement for additional mitigation.

Chapter 9 – Marine Mammals

The assessment of effects on marine mammals is a very difficult area, so the use of SMRU, SAMS and HWDT to undertake data collection and analysis is very much commended.

The conclusion at para 9.147 is that marine mammals will be deterred from the location of the turbines by noise. However, previous sections have stated that the noise of the turbines is felt to be insignificant compared to background noise. Therefore, it is not clear that marine mammals will necessarily be able to hear the devices. Although the section refers to 'relatively slow movement', the blade tip speed at 12m/s (or 26mph) is actually quite fast. Therefore, the Council considers that there remains an element of uncertainty around the conclusions in respect of marine mammal disturbance and collision risk. Given that this is the first proposed tidal array development it seems acceptable to allow the development to go ahead on the basis of an 'Adaptive management and environmental monitoring strategy' in order to be able to further inform areas of assessment where there is uncertainty. This monitoring will help target any subsequent mitigation should it be required, and as such, the proposed monitoring strategy outlined in Section 9.6 is welcomed and is considered to be appropriate in the circumstances. The final strategy should be agreed by the relevant regulatory bodies. The monitoring of impacts on collision and changes in behaviour of marine mammals for this proposed development will be invaluable for future developments around Scotland, in particular, the Pentland Firth.

Chapter 10 – Onshore Noise

Whilst there are no significant adverse consequences identified with the operation of the development, the confined nature of Port Askaig and previous experience with large scale on-shore and marine works in the locality is such that there is potential for noise and disturbance during the construction phase, particularly given the prevailing low ambient noise levels, other than during ferry operations. It is therefore recommended that a Construction Management Statement be required by condition, including details of working methods and operating hours, which should be the subject of consultation with the Council's environmental health officers prior to approval, in order to identify opportunities to avoid or mitigate potential noise and disturbance to residents.

Chapter 11 – Marine Fish and Shellfish Resources

No mitigation is identified in relation to Impact 11.15 (Collision Risk – Marine Fish and Shellfish). As it is known that certain colours are more visible than others to fish (and perhaps marine mammals) it could be worth controlling the colour of the turbines in order to make them as visible to fish and marine mammals as possible.

Chapter 13 – Elasmobranchs

Impact 13.6 (Collision) – Proposed mitigation to use vessel and/or shore based visual observers during installation works will be very important. Suggested mitigation to undertake a post-installation monitoring programme in order to determine the nature of those impacts is welcome. As suggested in the Environmental Statement, this could be combined with data collection for marine mammal monitoring. The possible mitigation measure of having impact sensors on each device is supported.

Chapter 15 – Commercial Fishing

The proposed mitigation to undertake installation works as far as possible during the summer months, when commercial fishing activity in the Sound of Islay is lower, is supported. Suggested consultation with the local fishing community is to be welcomed, which it is hoped will be continued throughout the installation and operation of the development, and used as an example for other marine renewable developments.

Chapter 19 – Traffic and Transport

Support the view detailed in the 'Navigational Safety Risk Assessment' that marking the development site with lighted navigation buoys is not likely to improve safety, and may in fact make it less safe. There is however, no mention of what Northern Lighthouse Board's attitude is to this. If lit navigation buoys are indeed needed, then the landscape assessment will need to be reconsidered in light of this.

Please note that this response is limited to matters associated with the Council's planning responsibilities. The harbour at Port Askaig and the ferry slip at Feolin are both operated by the Council, as is the Jura ferry, and the developer should be made aware that use of these facilities and consideration of conflict with ferry services should be the subject of direct discussion with the Council's Marine and Airports Manager, Marin Gorringer. A 'no objection' position in respect of the application and the associated Environmental Statement should not be construed as any indication of the absence of operational issues, which may require to be addressed separately. Additionally, CalMac as operators of the mainland ferry should be consulted in respect of operational issues likely to affect them during construction, operation and decommissioning of the development.

Chapter 20 – Socio-economics, Tourism and Recreation

The agreement to supply electricity to Diageo for three of their facilities on Islay is welcomed.

Para 20.74 states that divers will not be able to access the deep dive at Port Askaig Deeps during construction and operation for health and safety reasons (Appendix 19.1) Mitigation states that the array will be charted as a 'no fishing' and 'no diving' area and consultation will continue with relevant diving organisations. This will be important and should include BSAC and SSAC as a minimum and other local dive groups that are identified by these associations. There is no indication of views from the recreational diving sector on the usage of this dive site and their level of concern at not being able to use it, should the development go ahead. The listing of this dive site in revisions of existing dive guides and/or on websites will need to be removed.

I hope that the foregoing is of assistance to you in the determination of the application. I trust that you will provide the Council with a copy of the decision in respect of this application in due course.

Yours faithfully



Richard Kerr
Team Leader – Major Applications



Development and Infrastructure Services
Director: Sandy Mactaggart

Fiona Thompson
Marina Laboratory,
375 Victoria Road
Aberdeen
AB11 9DB

Kilbowie House, Gallanach Road, Oban, Argyll, PA34 4PF
Telephone (01631) 569160 Fax: (01631) 570861
Mobile [REDACTED]
Email Address: marina.curran-colthart@argyll-bute.gov.uk
Our Ref: MCC/LB Your Ref:
Date 10 November 2010
If phoning or calling ask for: Marina Curran-Colthart
Website www.argyll-bute.gov.uk/biodiversity

Cc. Richard Kerr, Senior Planning Officer- Team Leader
Planning and Regulatory Services, Planning and Regulatory Services,
Argyll and Bute Council, Ardrisaig, Argyll

Dear Ms. Thompson,

**ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
REGULATIONS 2000**

**SECTION 36 APPLICATION FOR A DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY,
ARGYLL**

Thank you for sending me the above application and supporting information provided by the developer for the Sound of Islay demonstration Tidal Array on 30 July 2010 in which you have requested me to provide comments relating to the biodiversity of the site.

For the purpose of my response, I have assessed the biodiversity interest in the supporting documentation and it appears that this element has been covered well (relevance to Argyll and Bute Local Biodiversity and other designations) albeit that mitigation for some habitats and species is unavailable due to the innovation of this project. The monitoring process for the marine and terrestrial sites should inform this.

My particular focus for this application was to look at the cumulative effects (includes in-combination) of the project (instalation of tidal turbine and the impact of laying cables and the erection of the sub-station) during construction and operation under the following headings:

1. Effects on Terrestrial and Marine Habitats
2. Effects on Terrestrial and Marine Species
3. Invasive Non- Native Species- Terrestrial and Marine species

I believe that the key impacts will relate to assemble of the turbines and their installation, in terms of noise,rock/silt residue introduced into the water column and the pollution risk by



boats associated with the construction and the unknown impacts relating to the operation of the turbines and their effects on sea life..

Re. Stabilisation of footings: ballast has been mentioned but what type? Is it local or imported? The latter would have to undergo some type of treatment in order to ensure that there will be zero effect on the marine environment.

I have noted from the report that natural colonisation of the footings is perceived to happen quickly, will you be monitoring the installations for native species and Invasive Non-Native Species (INNS)? And what will you do to resolve this situation if colonisation by INNS arises? I note from the supporting documentation that the Wildlife and Natural Environment Bill has not been included, it is relevance to Invasive Non-Native Species.

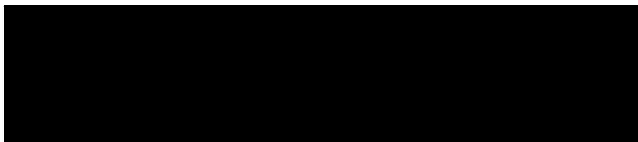
Re. Cabling from the marine habitat (on the sea bed and over land) to the substation: I have noted that the cable will cross a number of marine and terrestrial habitats, how will Scottish Power Renewables protect the sea bed and the cable in the marine environment? Have they considered a no take zone? On terrestrial habitats, how will the developer manage the cable installation in terms of habitat disturbance and restoration?

In terms of terrestrial habitats and species, public bodies have a duty of care of biodiversity under the Nature Conservation (Scotland) Act 2004, how will Scottish Power Renewables (SPR) offset any negative environmental and biodiversity impacts?

In Volume 1- Chapter 24 Mitigation, Monitoring and Management are key to the success of this demonstration project. Whilst, I recognise that SPR have set out their project commitments, this needs further work to ascertain actions, timing, targets and reporting mechanisms. There is an opportunity here for partnership working with the various Government and Non Government Agencies and I recommend that monitoring committee be set up and a progress report published annually.

If you require any further information, please do not hesitate to contact me.

Yours sincerely



Marina Curran-Colthart
Local Biodiversity Officer.
Argyll and Bute Council.

Unknown

From: Paul Townsend [Paul.Townsend@mcga.gov.uk]
Sent: 11 November 2010 10:06
To: Alan Keir
Cc: Helen Croxson
Subject: Sound of islay demonstration tidal array

Alan

Having reviewed the documentation we have no particular objection to this proposal provided the recommendations from the navigational risk assessment (appendix 19.1 are fully implemented however we would suggest a suitably worded condition on the consent to the effect:

"The company shall not commence installation of the development until the Scottish Government, in consultation with the Maritime and Coastguard Agency (MCA) is satisfied that the company has taken into account and adequately addressed all the MCA recommendations in the current Marine Guidance Note "Offshore Renewable Energy Installations -Guidance on UK Navigational Practice Safety and Emergency Response Issues" and annexes that may be appropriate to the development

This is to ensure that a sms and ercop are properly developed prior to installation Will provide full assessment against mgn 371 when I return from leave at end of month

Regards
Paul (bb)

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Unknown

From: Barbara Berx
Sent: 03 September 2010 11:56
To: Environmental Protection
Subject: Sound of Isla Tidal Development - response
Follow Up Flag: Follow up
Flag Status: Completed

Hi,

I have read section 7, and had the following comments.

Paragraph 7.5: the explanation of this equation is incorrect; from the next paragraph I am assuming that L_0 should be the wave length.

Paragraph 7.14: how come none of the results are presented here.

Paragraph 7.41: there is no reference in the reference list HR Wallingford, 2000. It would be good for them to clarify which report they mean with this.

Paragraph 7.62: I couldn't find any mention of the sediment grain size distribution, how it was determined or where they found figures for it; also no mention of what the expected suspended sediment load will be during the creation of the trench for the cable route.

I couldn't find any relevant Appendices.

Best wishes,
Bee

Bee Berx, PhD

Physical Oceanographer
Oceanography Group
Marine Scotland – Science

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<http://www.researcherid.com/rid/A-5875-2009/>

<http://www.challenger-society.org.uk/>

Unknown

From: [REDACTED]@btconnect.com]
Sent: 11 August 2010 10:37
To: Environmental Protection
Cc: [REDACTED]@walker-sharpe.co.uk; [REDACTED]@talk21.com; [REDACTED]@argyllfisheriestrust.co.uk; [REDACTED]@argyllfisheriestrust.co.uk
Subject: Sound of islay Demonstration Tidal Array
Follow Up Flag: Follow up
Flag Status: Completed

Thank you for your letter of 30 July regarding the demonstration tidal array proposed for the Sound of Islay. We have also received the non-technical summary relating to the project directly from Scottish Power Renewables.

The ASFB represents the network of 41 Scottish District Salmon Fishery Boards (DSFBs) including the River Tweed Commission (RTC), who have a statutory responsibility to protect and improve salmon and sea trout fisheries. We work very closely with the fishery trust network and their representative body, RAFTS, who provide a research, educational and monitoring role for all freshwater fish.

ASFB and RAFTS and our respective members have a considerable interest in the development of renewable sources of energy given that many of these developments are likely to take place in areas with potential for impact on migratory fish species and the fisheries they support.

Given that the tidal array is new technology, it is inevitable that there will be a number of 'untested' areas where there may be interactions between fish and the turbine structures. It is our view that these should be fully explored by the developers and that these should come within the scope of the Environmental Impact Assessment.

We therefore wish to make the following comments:

1. The project proposals should be conducted in full consultation with the Argyll and Islay DSFBs and the Argyll Fisheries Trust. We note that paragraph 4.3 of the non technical summary refers to environmental impacts on anadromous fish. It states that surveys have been completed in the rivers adjacent to the Sound and that local fishery associations were consulted. We are unsure if this included the Argyll and Islay DSFBs and the Argyll Fisheries Trust.
2. We note that the summary concludes (paragraph 4.9) that *'there is no evidence to suggest that anadromous fish use or transit the waters of the Sound of Islay'*. The report also concludes that the Sound is *'not considered to be a site of particular importance for anadromous fish'*, and paragraph 4.10 states that *'few studies have considered specifically the effects of offshore renewable installations on anadromous fish species. However, available information has been reviewed and indicates that any effects on such species would be negligible'*. Whilst the local Boards and Trust will be better placed to comment substantively on these claims, we would be very surprised if the Sound was not used by migratory salmonids and accordingly we would strongly challenge the above statements within the non technical summary. We would also fundamentally challenge the assumption in paragraph 4.10 that the effects of such technology will have negligible effect on migratory

salmonids. We do not understand how this assumption can be made where the same paragraph accepts that *'few studies have considered specifically the effects of offshore renewables installations on anadromous fish species'*. We are aware that Marine Scotland Science is presently engaged in work to assess potential impacts of off-shore renewable technology on migratory salmonids and this work is underway – we therefore object to the statement made in the summary about negligible effects on salmonids until such time as these have been properly assessed.

3. In general terms, we would like to record our own concerns that such developments will have potential construction and operational implications and these very often can be conducted without proper regard or understanding of the potential effect on fish and fisheries. Such impacts could include:

Disruption, obstruction or interference with salmon migration both during construction and during operation – such impacts could be physical or acoustic; This raises the following questions:

The siting of the array could be highly relevant.

What is the optimal depth for this technology in relation to the depth between turbine and surface of the water? This may be very important given the pelagic nature of salmon and sea trout migration.

What effect would the construction processes have on fish?

Has there been any research to determine what salmon do in the proximity of tidal power generators given the turbulence generated?

Is there likely to be any need to apply anti-foulants to the structures?

Will the effects of noise and mechanical disruption be assessed prior to construction and would on-going monitoring be put in place if the project is approved and completed?

Are there likely to be electrical fields associated with the installation and will these have a discernable effect on salmon or sea trout, or their prey species?

I hope that you find these general comments helpful and the Association would be happy to contribute further as necessary.

██████████ n
ASFB/IFM
Capital Business Centre
24 Canning Street
Edinburgh
EH3 8EG

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Mob ██████████ 2
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Unknown

From: Peter Hayes [P.Hayes@MARLAB.AC.UK]
Sent: 18 November 2010 11:51
To: Thompson F (Fiona) (MARLAB); F.Thompson@MARLAB.AC.UK
Subject: SPR Sound of Islay EIA
Follow Up Flag: Follow up
Flag Status: Purple

Hi Fiona,

As promised, below is my response to the SPR Sound of Islay EIA.

In general the data presented in Chapter 7 does not include any explanation of the errors associated with the equipment used or the output from the modelling undertaken.

Section 7.45 Why were the dates 15th of June to 17th of July 2009 selected for the collection of the ADCP data, how does this time period relate to the annual tidal cycle. How were the ADCP data used to identify the deployment sites for the devices?

Section 7.8 Can the available energy extracted (1.4%) be put into the context of the error associated with the modelling?

Peter

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From: [REDACTED]@canoescotland.org]
Sent: 01 September 2010 15:31
To: Alan Keir
Subject: RE: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL
Follow Up Flag: Follow up
Flag Status: Purple

Alan

I have now had a chance to look at the scoping documents for the proposed demonstration tidal array in the Sound of Islay.

The main issue for the SCA when considering this type of tidal energy project is whether the permanent infrastructure would break the surface of the water. We are reassured by paragraph 20.84 that the minimum depth would be 15 metres. A kayak passing over this device, or even a capsized paddler in the water, would not be endangered by a piece of equipment at that depth.

Our other concerns are to do with the construction phase & landfall infrastructure. We would like to flag up at this stage the potential for kayaks & other small craft negotiating these fast moving waters becoming entangled with any boats moored in position during the installation process. An inexperienced kayaker in such a fast moving current could struggle to negotiate a route around such a vessel & someone capsizing a mile or two upstream of the vessel could be swept against it in a very short time. We would ask therefore that the developer gives adequate thought to minimising such risks to people in small craft during the construction phase.

Turning to landfall infrastructure, we would ask that careful consideration be given to the needs of recreational visitors when landfall equipment is designed. We would like to ask that access to beaches & along shorelines is not prevented, & that tidal flows are not made more difficult for small craft as a result of artificial headlands being created by concrete infrastructure adjacent to the shoreline.

In preparing this response we have drawn on the SCA's Renewable Energy Policy, which can be found at: <http://www.canoescotland.org/LinkClick.aspx?fileticket=cfESDJ4FK1g%3d&tabid=619>. Bullet points 8, 9 & 10 are of most direct relevance in terms of our response to this proposed development.

Thank you for allowing us extra time to prepare this response & I hope this is useful in terms of considering the recreational aspect of this scoping consultation.

[REDACTED]

[REDACTED] | Access & Environment Officer
 Scottish Canoe Association
 Caledonia House, 1 Redheughs Rigg, South Gyle, Edinburgh, EH12 9DQ
 direct: [REDACTED] office: 0131 317 7314
 [REDACTED]@canoescotland.org | www.canoescotland.org

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From: Alan Keir [mailto:A.Keir@MARLAB.AC.UK]
Sent: 26 August 2010 12:30
To: [REDACTED]
Subject: RE: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR

19/10/2012

DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

█
That would be fine.

Thanks

Alan

From: █@canoescotland.org]

Sent: 26 August 2010 11:56

To: Alan Keir

Subject: RE: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

Dear Mr Keir

As my post is part-time & I have to go to my other job in the next few minutes, would it be ok if I respond to this consultation when I am back at my SCA desk next Tuesday?

Thank you

█
█ | Access & Environment Officer
Scottish Canoe Association
Caledonia House, 1 Redheughs Rigg, South Gyle, Edinburgh, EH12 9DQ
direct: 01738 850 175, office: 0131 317 7314
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From: Alan Keir [mailto:A.Keir@MARLAB.AC.UK]

Sent: 24 August 2010 16:40

To: █

Subject: SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

Dear █

ELECTRICITY ACT 1989

THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2000

SCOPING OPINION REQUEST (REMINDER) FOR PROPOSED SECTION 36 APPLICATION FOR DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL

I would be grateful for any comments you have on the above proposed works by 30th August 2010.
The developer should have already sent you a copy of their Scoping Report.

An email reply can be sent to env_prot@marlab.ac.uk or by hard copy to the address below.

19/10/2012

If comments are not received by this date, it will be assumed that you are content with the proposals. If you are unable to meet this deadline, please contact us to arrange an extension of the consultation period.

If you require further information please let us know.

Many thanks

Alan Keir

Licensing Officer

Marine Scotland – Marine Policy and Planning

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e: keira@marlab.ac.uk

w: <http://www.scotland.gov.uk/marinescotland>

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Unknown

From: Ian Davies
Sent: 22 October 2010 12:59
To: Leeanne Mullan
Subject: Sound of Islay

Leeanne

Yes, I have started it!

Sound of Islay

Mammals: We will need to do an AA for seals, and this will involve some effort getting inside the literature data and the new observations to understand what they mean, and then to adapt a collision risk model to do a risk assessment.

Unless SNH raise it as an important, unresolved issue, we should accept the noise analysis text, ie that the turbines will not add significantly to background noise. However, we should require direct measurements of noise output to be made.

MS LOT should consider the need for MMO during installation operations. Can we distinguish noisy ops from other ops.? Do we need to security of being able to state that MMOs were used|?

Displacement: We should require monitoring to detect displacement of seals by the array once it is in place, based upon pre installation monitoring that has been done by SMRU.

Section 9.6

- Bullet 1 OK
- Bullet 2 OK, but with option in conditions to extend
- Bullet 3 OK, if the kit works, and we can write down clear objectives. It did not work for SAMS.
- Bullet 4 OK, I think this will also involve SNH.
- Bullet 5 Possibly useful, but unlikely to have much power to detect significant change beyond natural variability.

Ian Davies
 22 10 10

Dr Ian M Davies
 Renewable energy and marine spatial
 planning Theme Leader
 Marine Scotland – Science
 Scottish Government
 Marine Laboratory
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e: [email](mailto:i.m.davies@marlab.ac.uk): i.m.davies@marlab.ac.uk
w: <http://www.scotland.gov.uk/marinescotland>

Unknown

From: Ian Davies
Sent: 22 October 2010 13:17
To: Leeanne Mullan
Subject: Sound of Islay

Sound of Islay

Chap 13 Elasmobranchs

Inclined to agree that effects are likely to be small, and that we rely on post-development monitoring to provide information on any interaction with basking sharks.

Chapter 14 Birds

Inclined to agree that impacts may be small. There is an opportunity here to make use of the development to explore alteration to bird feeding location/behaviour. Work (Beth Scott) in Sol has shown that some species have very well defined preferences for feeding location in relation to hydrographic features (upwelling, turbulence etc). It is possible that the turbines may alter the occurrence or distribution of these features, and thereby affect bird feeding. This could be addressed through land based observations. This may be an addition to the work that the developer is proposing.

Chapter 24
No comment

Ian

Dr Ian M Davies

Renewable energy and marine spatial
planning Theme Leader
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w: <http://www.scotland.gov.uk/marinescotland>

Unknown

From: Mike Robertson
Sent: 27 August 2010 10:57
To: Leeanne Mullan
Subject: RE: Scottish Power Renewables - Sound of Islay Tidal Array - Environmental Statement
Follow Up Flag: Follow up
Flag Status: Completed

Leeanne,

I have read through both chapters of the EIA as requested and have no comments to make other than this seems to me to be a well conducted Assessment. I can find no "holes" in their approach and consider that all relevant topics are covered. I particularly liked the work carried out by SeaStar Surveys (in the appendices) who completed comprehensive investigations of the work areas.

Mike

M. R. Robertson

Benthic Ecologist
 Marine Scotland – Science

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e: m.r.robertson@marlab.ac.uk

w: <http://www.scotland.gov.uk/marinescotland>

From: Leeanne Mullan
Sent: 13 August 2010 11:41
To: Ian Davies; Clare Greathead; Peter Hayes; Anne McLay; Iain Malcolm; Mike Robertson
Cc: Environmental Protection; Fiona Thompson
Subject: Scottish Power Renewables - Sound of Islay Tidal Array - Environmental Statement

Hello all,

ScottishPower Renewables have formally requested, in accordance with both regulation 7 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000, ("the Regulations") and Section 5 Part II of the Food and Environment Protection Act a EIA opinion for a proposed demonstrator Tidal Array (10MW) at the Sound of Islay. A copy of the Environmental Statement chapters, appendices and a non technical summary can be found on the R: drive in the Renewable Folder at the link below:

R:\Renewables\Environmental_Statements\Tidal\SPR Sound of Islay\DVD_Islay EIA Chapters for Print

Under regulation 7, Scottish Ministers are required to consult the specified statutory bodies (and other interested parties) as to their views on the information supplied within the Environmental statement.

Additionally, you should identify other impacts which are of little or no significance for the development in question. For these issues, it will be sufficient that the Environmental Statement demonstrates that the developer has given due consideration to their relevance. The regulations allow three weeks for this consultation to take place.

I would be grateful for your input on the following sections:

Consultee	Chapter	Titles
Pete Hayes	7	Physical Environment

Ian Davies	9, 13, 14, 24	Marine Mammals, Ornithology, Elasmobranchs
Claire Greathead & Mike Robertson	8, 16	Biological Environment, Intertidal Ecology
Iain Malcolm	12, 24	Anadromous Fish
Anne McLay	11,15, 20, 24	Commercial Fisheries
Fiona Thompson	All	Environmental Statement

Chapter 20 - Socio Economics have they identified the impact on the fisheries?

In addition, please consider the information in the following appendices:

Consultee	Appendices	Titles
Pete Hayes	8.1	Physical Environment
Ian Davies	9.1, 9.2, 9.3,9.4, 14.1	Marine Mammals, Elasmobranchs
Claire Greathead & Mike Robertson	8.1, 8.2, 16.1, 16.2, 16.3, 16.4	Biological Parameters, Intertidal Ecology
Iain Malcolm	12.1	Anadromous Fish
Anne McLay	15.1, 15.2, 15.3, 15.4	Commercial Fisheries
Fiona Thompson	All	Scoping document

Consequently, I would be grateful for your views by 6th September 2010. Please don't hesitate to contact me if you require anymore information.

With thanks

Leeanne Mullan

PP - Fiona Thompson

Marine Renewables Licensing Manager

Marine Scotland – Aquaculture, Freshwater Fisheries, Licensing and Policy

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Our ref: PCS109265

Your ref:

Fiona Thompson
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

If telephoning ask for:
Zoe Griffin

13 September 2010

By email only to: Env_Prot@marlab.ac.uk

Dear Fiona

Electricity Act 1989
The Electricity Works (Environmental Impact Assessment) (Scotland) Regulation 2000
Section 36 Application for a Demonstration Tidal Array, Sound of Islay, Argyll

Thank you for your consultation letter of 30 July 2010 regarding the above which SEPA received on 30 August 2010, and the Environmental Statement submitted by the applicant, ScottishPower Renewables (UK) Ltd.

We ask that the planning **conditions** in Sections 2.3, 3.4 and 4.1 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 planning authority

1. General

1.1 We are pleased to note that most of our comments made at the Scoping Stage of this application in our email dated 1 July 2009 have been taken into account and addressed within the Environmental Statement (ES). However, we do have some concerns that the onshore impacts of the proposed development have not been fully addressed in the ES. As such, although we do not object in principle to the application, we request a number of planning conditions are attached to any consent given to ensure all potential impacts are minimised as discussed below.

2. Engineering activities in the water environment

2.1 It is noted from Figure 1 in the None Technical Summary that the proposed onshore cable will cross three minor water courses. We also note from paragraph 16.79 that the cables will be laid adjacent to the existing road. There appears to be no details in the ES of how the cables will cross the three watercourses or the ditch adjacent to the substation building. It is also not clear from the ES whether the cables will be trenched across existing bridges/culverts or be attached to existing bridge structures.

2.2 Likewise, no detailed drawings are contained within the ES for the substation compound and its access from the A846. With particular reference to our interests, no details are

provided on how the existing watercourse adjacent to the proposed substation compound will be crossed. As in 2.1, we request that the applicant confirms how the access road to the substation compound will cross this watercourse before consent is granted.

- 2.3 In order to meet the objectives of the [Water Framework Directive](#) for any new or widened water crossings, bridging solutions or bottomless or arched culverts which do not affect the bed and banks of the watercourse should be used. Therefore, if a new water crossing is to be created or existing bridge or culvert is to be widened, we object unless a **condition** is imposed to ensure that bridging solutions or bottomless or arched culverts are used for all proposed watercourse crossings. To assist, the following wording is suggested:

Bridging solutions, or bottomless or arched culverts, designed to leave the bed and banks of the watercourse in a natural state, shall be used for any proposed watercourse crossing(s) within the application boundary.

Reason: to protect the water environment.

3. Pollution prevention and environmental management

- 3.1 In relation to water quality, we agree with the statement '*The main impacts from the proposed development would relate to accidental spillages of materials during construction, operation ... and decommissioning*'.

- 3.2 Section 21.6 of the ES outlines the assessment of effects and mitigation on water quality. We agree with the assessment that the development is unlikely to lead to a deterioration in status of the water body, The Sound of Islay (WB ID 200298), if the general mitigation principles and pollution prevention measures set out in the ES are undertaken. However, we disagree however with the conclusion that no mitigation measures are required in paragraphs 21.37, 21.42 and 21.44. The proposed site specific Environmental Management Plan (SEMP) is the mitigation measure that is required for the assessment of 'minor' significance to be correct and for no deterioration of the good status of the waterbody to occur.

- 3.3 It should be noted in paragraph 5.10 relating to decommissioning that there is no mention decommissioning of onshore structures or cables. We recommend that, before any consent is given, the applicant confirms whether any of the onshore elements of the development will be included in the decommissioning phase and if so these should be included in the decommissioning plan as appropriate.

- 3.4 Considering the above, we object to this application unless a **condition** is imposed requiring that a full site SEMP be submitted for all stages of the development (construction, operation and decommissioning) both on and offshore. To assist, the following wording is suggested:

At least two (2) months prior to the commencement of any works, a full site specific environmental management plan for all stages of the development (construction, operation and decommissioning) both on and offshore must be submitted for the written approval of the planning authority [in consultation with SEPA] [and other agencies such as SNH as appropriate] and all work shall be carried out in accordance with the approved plan.

Reason: to control pollution of air, land and water.

4. Substation

- 4.1 As stated in 2.2, we note that no details have been submitted for the detailed design of the substation. There is a small watercourse adjacent to the proposed substation site. In order to prevent pollution to the water environment we recommend a buffer strip of at least 2 metres between the substation site boundary and the watercourse. Surface water drainage arrangements will also need to be confirmed. We therefore object to this application unless a **condition** is imposed ensuring that detailed drawings of the substation and its access are submitted. To assist, the following wording is suggested:

Prior to the commencement of any works, a detailed plan of the substation showing its location in relation to the adjacent watercourse and surface water drainage shall be submitted for the written approval of the planning authority, in consultation with SEPA, and all work shall be carried out in accordance with the said plan. The plan must include details relating the methods for the collection and treatment of all surface water runoff including roof drainage using sustainable drainage principles.

Reason: to prevent pollution of the water environment.

5. Waste Water

- 5.1 Any proposed temporary foul drainage facilities for workers on site do not appear to have been described in the ES. We recommend that any requirements for foul drainage are addressed within the SEMP requested in section 3 above.
- 5.2 Our preference would be for waste water and solid waste to be transported away from the site and disposed of using standard waste handling facilities during the construction period.

6. Sustainable Waste Management

- 6.1 There appears to be no specific proposed measures for dealing with waste arising from the proposed development in the ES. Waste peat is likely to be generated by construction developments on peatland. The development should seek to minimise peat excavation and disturbance to prevent unnecessary production of waste soils and peat. Scottish Planning Policy (Paragraph 218) recommends that a site waste management plan be used to minimise waste at source on construction sites. In the interests of seeking best practice particularly in relation to the proposed excavations in peat and meeting the requirements of Scottish Planning Policy, we object to this application unless a planning **condition** requiring a full site waste management plan is imposed. To assist, the following wording is suggested:

Prior to the commencement of any works, a full site waste management plan shall be submitted for the written approval of the planning authority, in consultation with SEPA, and all work shall be carried out in accordance with the approved plan.

Reason: To ensure that waste on the site is managed in a sustainable manner.

This advice is given without prejudice to any decision made on elements of the proposal regulated by us, which may take into account factors not considered at the planning stage.

Detailed advice for the applicant

7. Engineering activities

- 7.1 Please note that we have requested that a planning condition is attached to any consent requiring bridging solutions or culverts to leave the bed and banks of watercourses in a natural state. Further guidance on the design and implementation of crossings can be found in our [Construction of River Crossings](#) Good Practice Guide. Best practice guidance is also available within the water [engineering](#) section of our website.

8. Pollution prevention

- 8.1 Please note that we have requested that a planning condition is attached to any consent requiring the submission of a site environmental management plan (SEMP) to be submitted at least two months prior to the proposed commencement of development. The SEMP should incorporate detailed pollution prevention and mitigation measures for all construction elements potentially capable of giving rise to pollution during all phases of construction, reinstatement after construction and final site decommissioning. Further guidance on the production of EMPs can be found on our [website](#).
- 8.2 In relation to tendering, please refer to CIRIA C648 which states that, "One of the main drivers for environmental improvements is pressure applied by clients through standards laid down in contract documentation. Contracts should specify exact requirements for water pollution prevention in order to encourage high standards and to allow for like for like tender evaluation".

9. Surface Water Management

- 9.1 Further guidance on developing a surface water drainage scheme can be found on our [website](#).

10. Sustainable Waste Management

- 10.1 Please note that we have requested that a planning condition is attached to any consent requiring the submission of a site waste management plan (SMP) is imposed. As stated above the development should seek to minimise peat excavation and disturbance. If less peat is generated, less waste controls apply.
- 10.2 Details of how waste will be minimised at the construction stage should be included, demonstrating that:
- Construction practices minimise the use of raw materials and maximise the use of secondary aggregates and recycled or renewable materials.
 - Waste material generated by the proposal is reduced and re-used or recycled where appropriate on site (for example in landscaping not resulting in excessive earth moulding and mounding). There may be opportunities to utilise surplus soils for sustainable purposes elsewhere.
 - All waste streams and proposals for their management should be identified, including peat and other materials excavated on site and the importation of any waste materials to the site. Accordingly, a site specific site waste management plan should be developed to address these points. This is in accordance with the objectives of Scottish Planning Policy and the National Waste Plan which aim to

minimise waste production and reduce reliance on landfill for environmental and economic reasons.

Regulatory advice

11. Regulatory requirements

- 11.1 As stated in our scoping response, the main activity would be carried out off-shore and would therefore not be regulated by SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2005 (as amended) (CAR). However, steps should be taken where applicable to minimise pollution of the shoreline and on-shore water environment to barest minimum levels. The following information may therefore be of use.
- 11.2 If applicable, the applicant may require authorisation from SEPA for watercourse engineering activities. Further details can be found in the CAR Practical Guide (found at http://www.sepa.org.uk/water/water_publications.aspx or in the local SEPA office). Prior to submitting a CAR application the applicant may wish to discuss appropriate design options with a member of the EPI team in the local SEPA office.
- 11.3 Any proposals for reuse or recycling of materials, such as soils from other sites, may require to be registered with SEPA under a Waste Management Exemption. For further details the applicant should make contact with a member of the Operations team in the local SEPA office. Further advice on waste matters relating to peat can be found in our [Regulatory Position Statement – Developments on Peat](#) .
- 11.4 Details of regulatory requirements and good practice advice for the applicant can 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 regulatory team in your local SEPA office at:

2 Smithy Lane, LOCHGILPHEAD, PA31 8TA Tel: 01546 602876

If you have any queries relating to this letter, please contact me by telephone on 01224 266655 or e-mail at planningaberdeen@sepa.org.uk.

Yours sincerely,

Zoe Griffin
Senior Planning Officer
Planning Service

Ecopy: Scottish Power Renewables: [REDACTED]@scottishpower.com



nature's voice

RSPB SCOTLAND
South and West Scotland Regional Office
10 Park Quadrant
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Fiona Thompson
Licensing Operations Team
Marine Scotland
Marine Laboratory
375 Victoria Road
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AB11 9DB

11 September 2010

Dear Ms Thompson

ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
REGULATIONS 2000
PROPOSED DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY

Background

Thank you for consulting RSPB Scotland regarding this application for a demonstration tidal array site within the Sound of Islay. This will consist of 10 tidal turbines (Hammerfest HS1000) with a generating capacity of 10MW, with a life span of 7-14+ years.

The turbines are to be located in water of over 48m situated upon the seabed within the Sound of Islay to the south of Port Askaig. The Crown Estate has been approached in regards to leasing this area of seabed. The Array will be positioned in four rows and spaced based upon flow modelling. The turbines are currently being developed by Hammerfest Strøm (HSUK) and produce energy on flood and ebb tides. The device is a rotor-based turbine (23m diameter) with the nacelle (hub height 22m) attached to a tripod support structure that is positioned upon the seabed using gravity ballast in its legs (height from seabed approx 33.5m and below sea surface of 16.5m). The deployment at this relatively sheltered site allows for developing procedures suitable for future use at high energetic sites.

RSPB Scotland has no objection to this proposal, as a trial deployment, but advises that a comprehensive programme of monitoring should be put in place and a working group established which will advise on mitigation measures required, including shutdown, if impacts are found to be greater than assessed within the Environmental Statement (ES). These requirements should be attached as conditions to consent.

Patron: Her Majesty the Queen Chairman of Council: Ian Darling FRICS President: Kate Humble
Chairman, Committee for Scotland: Pamela Pumphrey Director, Scotland: Stuart Housden OBE
Regional Director: Anne McCall
RSPB is a registered Charity: England & Wales no 207076, Scotland no SC037654



Environmental concerns

The Sound of Islay provides a marine habitat for a variety of marine species and those most at risk from the proposal will be marine mammals, basking shark and seabirds. These are liable to potential collision and disturbance and displacement from the development. In relation to seabirds, it is diving species which are most at risk, these include black guillemot, guillemot, razorbill, cormorant, shag, eider, common scoter, great northern diver (GND) and red-throated divers (RTD).

Although the Sound does not support large concentrations of seabird it appears, disappointingly so, that the ES is based upon less than a years worth of survey data (14.19) with regular survey data between May- November 2009 only so data for December – April is lacking. Ideally the ES should not have been submitted until at least a full years worth of data was included for assessment. It renders statements of occurrence contained within the ES as ‘throughout the year’ as possibly misleading and does not allow for full consideration of numbers of species present in the winter i.e. it is likely that wintering species such as GND will peak within the period that is not included this is not made clear within the ES. However although this limits the assessment based upon current knowledge it is unlikely that diving birds will occur in such numbers winter that impacts are likely to be significant. But it places a question over the assessment of potential impacts on wintering diver and duck species, which an addendum to the ES should cover.

It is somewhat disappointing that sub-surface monitoring appears limited to passive sonar survey for marine mammals with no attempt to place active sonar or other monitoring techniques sub-surface within the sound to monitor movements through the site prior to installation.

1. Ornithology

Seabirds

The survey looks at usage by birds of the sound of Islay through vantage point work which provides an indication of preferred areas. From the information contained within the ES it appears that the potential for impacts will be upon Black guillemot, razorbill, shag and gannet. The other species occur at much lower numbers and/or aspects of their ecology mean they should not be effected.

Black guillemot – 35 pairs breed within the Sound with the pre-breeding survey suggesting 4 pairs occur within the Sound adjacent to the array area. Snapshot counts show birds use areas outside of, but in very close proximity to, the site. Black guillemots are thought to pursuit dive down to 50m so potentially they maybe displaced or collide with the turbines. The EIA considers the placement of suitable nest structures away from the development area as a potential mitigation measure as suggested by RSPB Scotland at the scoping stage.

Guillemot/razorbill – Mostly occur in summer in small numbers. Razorbills are recorded more frequently than guillemots, up to six times more numerous. Numbers of razorbill present are highest in the late summer (involving adults with young) typically 5-15 birds but there are records of 40 and 90 birds present in August. The ES considered that these birds maybe from the North Colonsay and Western Cliffs SPA it may also be likely that birds from the Rathlin Island SPA occur within this area, however numbers are relatively small and so they is unlikely to be a significant impact on these population. Being known deep divers, over100m+, they potentially maybe displaced by or collide with turbines.

Shag/Cormorant – Cormorants only small numbers recorded. Shag is the most common bird recorded with approximately 15-20 birds in spring, 20-25 autumn and 40 in winter. Two small local colonies occur but breeding numbers are small relative to the regional population. They use intermediate diving depths and snapshot counts show that birds do not feed within the site but do occur within the surrounding area close to site boundary. Diving down to over 40m means that they are potentially at risk from displacement and/or collision.

Gannets – higher numbers present in summer with typically 5-10, and sometimes up to 20+ birds present. Flying bird data shows that passage peaked in August (44 birds an hour). With a capacity to dive down to at least 20m they are potentially at risk of displacement / collision.

Divers – RTD low numbers spring-summer (maximum 3 birds observed) and GND low numbers (passage 1-2 and winter 2-4 birds). It is not clear what data is used for the winter counts – whether more recent data not contained within the Annex was included in the ES assessment to provide wintering numbers. Able to dive to c60m birds occurring could potentially be impacted.

Eiders – moderate numbers present with a peak of 156 in October; these figures are of regional significance at 3% of the population. However, data collected shows that within the sound they prefer shallow areas for feeding, but can dive to 40m. **Common scoter** - few records with no feeding activity observed.

Manx shearwaters recorded on only a few occasions with the largest group 200 dip-feeding mid Sound in August. Generally shallow feeders and low occurrence means that they should not be at risk.

Gulls – Common and herring frequently recorded; lesser black-backed less frequent and in summer only; great black-backed throughout year but more occur in winter. Operation of the array will not impact on these species due to their ecology.

Kittiwake – usually moderate numbers where 5-20 birds present. It is interesting that extrapolation of the flying bird watch data would mean that approximately 23,000 birds would pass through the sound of Islay in July-August. **Terns** – small numbers of arctic terns present in the summer. These are near surface feeders so at no risk from the development.

Raptors

We did not receive the confidential Annex upon nest sites of the species mentioned, however based upon data we hold (nest locations) we do not assess the potential impacts on these species as significant.

2. Benthic ecology

The benthic survey concludes that faunal communities that occur within the area are typical of communities exposed to strong water movement. The communities of tidal rapid areas are rare in the UK but currently have no legal protection. Marl was found to occur (transect 26 and possibly 19) but these lie outside of the site area. Impacts are assessed as being localised to turbine foundation areas and cable routes. Disturbance is therefore limited and within a high-energy environment which is naturally subject to changes. Any impacts from the array are therefore considered to be negligible.

3. Marine Fish/ shellfish and Andromous fish

The ES suggests that impacts will be minor on marine fish and shellfish, with little usage of the sound by migratory fish. With regard to marine fish, the ES states that in relation to the array acting as a barrier to movements through the sound and associated collision risk, effective mitigation is not possible but as a worst case scenario the effects will be minor.

4. Elasmobranchs

Our concern here focuses upon basking shark which is a globally threatened species; although a number of other shark and ray species are also thought to occur within the area. Although basking sharks are typically recorded near the surface (13.93) this is a product of their visibility whilst feeding. They do not always remain at the surface; therefore exclusion from collision risk within the ES (13.96) would seem unwise. The ES notes (13.35) that survey work concludes there is a low number of sightings around Islay and the Sound of Jura. SMRU surveys recorded two in August and September within the Sound of Islay. On a recent visit to Islay, I recorded a number of basking sharks. Two were observed from Port Askaig, one close inshore and another towards the mid channel. Both were actively feeding and moved off slowly southwards. Another five were observed to the north between Port Askaig and the Rhuvaal lighthouse. This is considerably more than recorded during the survey work suggesting that the data/surveys used within the report has not sufficiently estimated the species resource within the area. How this species uses the water column between feeding (near surface) and non-feeding (potentially swims deeper) bouts is a question which will be difficult to answer in regards to collision. The ES makes it clear that potential impacts of electromagnetic fields upon shark's electro-receptors are poorly understood. Mitigation is required to further assess collision risk upon this species. Being a near surface feeder, electro-magnetic impacts are unlikely whilst feeding, however use of different water depths whilst not feeding should be considered. It would be of real interest to know if ongoing array surveys during 2010 have picked up additional sightings.

5. Marine mammals

Past information gathered within the area and new survey work is utilised to assess potential impacts. All cetaceans and seals are classed as European protected species.

Cetaceans and seals appear to occur in low abundance in the array area compared to the wider Islay area. Species which occur include harbour porpoise, bottlenose dolphin (resident pod within area), minke and killer whale plus seal species. Of these, it is harbour porpoise and the two seal species which are most abundant within the area and therefore potentially most at risk of negative impacts.

In relation to hearing ability, it would appear that the sound signature of the devices against the background noise will only be apparent relatively close to the turbines (20-400m) so that animals may already be in close proximity before they realise that there are any novel structures nearby. These distances should give an animal which comprehends them as a threat time to alter its course. However, how they will interpret the noise and react to it is not known and it could potentially attract inquisitive species. Over time, a degree of habituation may also occur.

The deploy and monitor approach specified within the ES should be required as a condition of consent with a provision for suitable mitigation to be applied if impacts are found. Monitoring should try and research the reaction of cetaceans to the installed turbines so to inform any further tidal arrays.

6. Monitoring

RSPB Scotland would welcome involvement in any monitoring project established as part of this development. The proposal, as the ES states, will need to be monitored to establish if impacts do occur in relation to the seabird species specified, marine mammals (cetaceans and seals) and basking shark. Whilst the area is used by diving seabirds, the numbers present are not high and it is unlikely that a significant impact would result even if some limited impacts do occur. It seems that it is marine mammals and basking sharks that are at the greatest risk of potential impacts. A key issue in assessing this application is the limited knowledge we currently have regarding the impact of tidal devices within the marine environment. Although the ES concludes that impacts on marine mammals and basking sharks are likely to be low, this is not based on any real understanding of how these species will react to the turbines. Similarly, we have no comprehension of the potential of diving birds to collide with the turbines, although as previously stated the area appears relatively unimportant in terms of diving bird populations.

Subsurface monitoring

Subsurface monitoring is required although there are a range of technical and practical issues. We advise that the deployment of remote sensors on the turbines should ideally include both video, although thermal imaging devices may be a better option than video given visibility issues, and sonar. Sonar/ thermal imaging could be installed on/near the turbines to monitor mammals and birds passing close to the structures. Research work is currently being carried out on establishing the sonar signatures of birds. Similarly underwater video (visibility permitting) could potentially be used to monitor interaction with the turbines. The turbines within this array should all be fitted with collision sensors so that direct impacts are recorded. In-depth monitoring work is required on this trial array to establish that the conclusions that are reached in the ES of minimal impacts area correct. These are based largely on assumption rather than detailed knowledge (especially for marine mammals and basking sharks), and further research is required to achieve a fuller understanding of the potential interactions between marine sub-surface turbine arrays and marine organisms. The survey work undertaken should be robust enough to show that any impacts resulting from the deployment of a full array will be acceptable. This project therefore should be seen as an opportunity to carryout research into interactions of turbines with marine life.

Surface monitoring

Surface monitoring should also be carried out this should cover survey work in years 1, 3, 5 and 10 upon birds, marine mammals and basking sharks to achieve as comprehensive as possible a data resource for tidal devices deployment.

As best practice records of any leakage of contaminants from the turbines and associated vessels plus loss of equipment / materials should be recorded and reported throughout the life span of the project.

7. Mitigation

Although there is mention of mitigation within the ES in regards to marine mammals (which should also include basking shark), we are unsure how this mitigation will reduce impacts. Most of the mitigation outlined seems to consists of monitoring rather than any actual techniques to mitigate for any impacts which occur. Hence the developer will be applying for EPS licences since disturbance is likely to occur during deployment and may persist thereafter. We advise that a more precautionary approach, given the uncertainties of impacts at this stage, would be the deployment and monitoring

of up to 3 devices so that impacts can be assessed at a smaller scale. We are unaware of any proven mitigation measures which could be used if it is found that collision is an issue. It would seem that the only reliable method to avoid collision would be an ultimate shutdown condition. It may be feasible to install a sonar induced shut down system, if marine mammals/basking shark are detected to be approaching the array lasting as long as they remain in the vicinity. We note the ES states that in relation to the array acting as a barrier/collision to fish passing through the sound effective mitigation is not possible but as a worst-case scenario the effects will be minor. If barrier/collision is found to be an issue for marine mammals and basking sharks and deterrents such as audible warning devices fail to discourage them, the impacts will be more significant and the only realistic mitigation option will be shutdown, to ensure minimum impacts on these species.

8. Conclusion

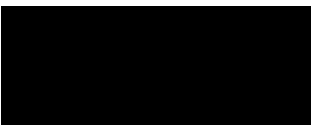
Tidal arrays are a new technology and research into their impacts on the marine environment and life are in its infancy. From the survey work collated for the ES, it would appear that no major concerns are currently discernable through this project. However a system of monitoring and research is required to further assess impacts and reactions to the tidal array. This project provides an opportunity to try and establish the likelihood and potential impacts of marine life – turbine interactions. We would therefore recommend that the following conditions are attached to any consent that may be granted:

A comprehensive programme of monitoring should be agreed by relevant stakeholders prior to commencement of development.

A working group, comprising relevant stakeholders, should be established prior to commencement of development which will advise on mitigation measures required if impacts are found to be greater than assessed within the ES.

We hope you find these comments helpful. Should you require clarification of any of the above points please do not hesitate to contact me

Yours sincerely

A solid black rectangular box used to redact the signature of Andy Robinson.

Andy Robinson
Conservation Officer, Argyll and Bute

cc. Louise Gunstensen – Senior Conservation Planner, RSPB

Scottish Canoe Association

Renewable Energy Policy

Introduction

In passing the Land Reform (Scotland) Act 2003 the Scottish Parliament has provided a statutory right of access to inland water and confirmed the customary freedoms of access that paddlers have always enjoyed in Scotland.

However, the quality of the resource that we take access to, Scotland's rivers, lochs and coastal areas, is coming under increasing threat from various types of development, most notably at the current time from renewable energy proposals. Whilst the Scottish Canoe Association (SCA) welcomes the passing of a statutory right of access, we are concerned that the canoeing resource in Scotland does not suffer from damage by inconsiderate or poorly planned renewable energy schemes.

With this in mind the SCA has developed a Renewable Energy Policy in order to express our concerns about the value of the places where canoeing takes place and to explain to developers, planners, government agencies, councillors and politicians the views that the SCA holds and the kind of sites that we would wish to see protected from development.

Throughout this document we will use the generic term canoeing to refer to the use of both canoes and kayaks.

Policy Context

The SCA believes that government should make the promotion of energy efficiency a much higher priority. There is a fundamental issue with causing damage to our natural heritage in order to generate energy that is then wasted on inefficient appliances, under insulated buildings and overly relaxed public attitudes to use of energy.

The SCA recognises the global problems associated with carbon emissions and climate change, and accepts there is a need to alter our sources of energy and societal attitudes towards use of energy.

The appendices to this policy statement describe the historical context to the SCA's involvement in the energy debate as well as the current relevance of national energy policy. The appendices then go on to review the trends in hydro and marine energy development.

The SCA's policy for dealing with Renewable Energy issues is set out below.

SCA Policy

1. The SCA wishes to be involved in the debate on the future of the nation's energy policy in order to play a proactive role in determining the impact on water that canoeists make recreational use of.
2. The SCA seeks to work with developers, agencies, consultants and planning authorities to help identify potential conflicts between canoeing and proposed renewable energy projects. The SCA believes that early consultation should lead to the avoidance of damaging conflicts between recreational interests and energy companies.
3. The SCA will form a view on each new renewable energy proposal taking into account a number of factors. These include: the likely impact on paddling interests; the importance of the water body involved in paddling terms; the protection of scenery and a judgment on any cumulative effect of a range of different renewable projects.
4. We are concerned that good rivers are being threatened for a very small power output in return. Therefore, in assessing any proposed energy scheme the SCA will perform a power output to canoeing interest comparison. We believe this will enable us to consider and compare two important factors: what is being lost and what is being gained.
5. Where the canoeing value of a river is not so great that we would wish to see the proposed development stopped we will work with the developer to comment on the safety aspects of the inlet and outlet features, negotiate shut down days for the river to be paddled and in most cases request an online river level gauge.
6. The SCA will oppose renewable energy proposals when we consider the watercourse or coastal area that is under threat to be of national or international value to our sport.
7. The SCA is concerned that building barrages in estuaries could hinder navigation and introduce safety issues for paddlers. Any barrage should have continuously navigable channels near the coast to ensure safe passage for canoes, kayaks and other small craft. The possible ecological and silting problems caused by tidal barrages are also of concern.

8. The SCA seeks to protect our finest coastal scenery. Scotland's coastline is the most scenically attractive in Europe and should be offered special protection to recognise this. Major developments on our remoter and most scenically attractive stretches of coastline should be resisted and will be opposed by the SCA. The SCA would prefer to see offshore wind turbines located well out to sea; and tidal and wave power stations either out to sea or located entirely below the surface of the water.

9. The SCA is concerned about the safety implications of certain marine renewables and the consequences for sea navigation. For this reason we are opposed to developments on stretches of coast that would require small craft to go further out to sea to navigate around or stop paddlers from landing on the coast in an emergency.

10. The SCA is concerned about the access implications of marine renewables on the water close to the coast and in the coastal zone. We are opposed to developments on the sea and coastline that limit where small craft can navigate. Where it is necessary to have renewable energy installations or their shore facilities near the coast, existing launch sites should be preserved. Where it is necessary to use part of the coast for the installation, provision of car parking and access to the water for recreational users should be maintained or improved as part of the installation. The principle of multiple uses for coastal sites should apply.

11. Tidal energy represents the only form of renewable energy that could produce large amounts of new base load energy. For that reason we believe it is inevitable that tidal energy will eventually become widely utilised and will contribute to our nation's security of supply. We would like to see a locational strategy drawn up well in advance of Scotland's tidal energy being harnessed.

12. The SCA is concerned that starting up and shutting down turbines can cause rapid and artificial fluctuations in river levels. This could cause problems for canoeists, as well as anglers and other recreational visitors, especially in gorge sections of white water rivers. The artificial altering of water levels by hydro schemes switching on and off could lead to accidents or contribute to existing incidents turning into accidents. The SCA will assess the safety implications of any proposed scheme on paddlers. This will require information on the anticipated normal running regime for the turbine and the implications of an emergency shutdown. The anticipated number of controlled start ups and shut downs on a daily

basis and the speed at which the water levels change will be required to carry out this assessment.

13. The SCA believes that water release information from existing hydro power stations should be more freely available to canoeists so that more recreational use can be made of the water.

14. The SCA seeks to work with developers and energy companies to secure good quality access facilities that will assist canoeing, such as passes navigable by canoe and footpaths round new obstructions on the river as well as car parks close to the access and egress points on controlled rivers.

15. The SCA believes the practice of cutting the capacity of existing hydro schemes in order to qualify for subsidies is indefensible and should be stopped.

16. The SCA believes in the principle of early consultation being used to identify problems with proposed plans at an early stage and as a way of avoiding protracted conflicts between developers and opponents of a proposed scheme as well as generally improving the public perception of renewable energy.

17. The SCA believes that government should provide a lead by developing a locational strategy for all forms of renewable energy.

18. The SCA would like to see renewable energy developed in such ways that the need for unsightly transmission systems is reduced and any environmental impact is minimised. As renewable energy projects eventually move offshore we would like to see more use of sub-sea cabling, albeit with due care taken to consider the natural heritage value of our underwater ecosystems.

Appendix A

Historical Context

A great deal of hydro development took place in the Scottish glens in the post-war years. These schemes had a major impact on our upland landscapes, but they did provide energy to remote parts of Scotland for the first time. These schemes are still operational and providing electricity to the national grid some 50 years after they were built. The dammed storage schemes that were built in those days still provide electricity as well as predictable water for canoeing via releases in the form of freshets, which are primarily aimed at helping fisheries management but are sometimes specifically for canoeing events.

With the exception of the massive Glendoe hydro scheme, the modern day renewable energy industry appears not to be looking to build anymore dammed storage schemes. Whilst storage schemes do provide opportunities for good canoeable water during releases, the landscape impacts caused by their highly visible draw-down scars can be significant, and are considered unacceptable to a wide range of recreationalists, and this is one reason why they are not currently being seen as a viable proposition in Scotland.

The building of nuclear power stations in Scotland during the 1950s and 1960s led to the need for pump storage hydro schemes and the Cruachan and Foyers power stations were constructed for this purpose. Should government commit to replacing our ageing nuclear power stations there could be a renewed interest in pump storage. Should this happen there could be implications for high mountain lochs and the burns and rivers that drain them. The decision about our future commitment to nuclear power will be based on the political direction Scotland chooses to follow, but it could also depend on future developments in the international quest for power from waste free nuclear fusion as opposed to nuclear fission with its associated problem of how to dispose of the waste nuclear material. A return to nuclear power in combination with pump storage hydro would be likely to impact on a small number of mountain burns and the main concern to canoeing would be whether these were canoeable.

Appendix B

National Energy Policy

The UK and Scotland are undergoing a change in energy policy, partly brought about by ageing power stations and partly because of our Kyoto and other commitments to reducing carbon emissions. As well as reviewing our energy mix in terms of power sources, we also have to review our network for electricity transmission. The Beaully to Denny powerline upgrade proposals are highlighting the problems of landscape impact, health concerns and affect on property prices associated with overland pylons. With renewable energy production set to move increasingly offshore the arguments for sub-sea transmission lines becomes a more viable option. Also, the greater the amount of power produced the more economically viable the higher investment in sub-sea cabling becomes. Onshore transmission lines have a scenic impact for a number of recreational activities, including canoe touring on open water, especially lochs. Sub-sea cabling, on the other hand, would usually be buried well out to sea and should not have any impact on kayakers who generally keep close in to shore. We would have concerns that the places where cabling leaves the land or comes back onto land should be well protected, but the high voltages concerned would require that in any case. Our other concern in this area is that access to the foreshore is not affected by the building of shore based structures for new developments.

The comment is often made that if energy efficiency were taken more seriously we would not have to destroy valuable parts of our countryside in order to power inefficient electrical appliances and allow householders to leave their appliances on standby overnight or workplaces their lights and computers on overnight. The threat to our countryside in general, and canoeing resource in particular, would be lowered if more effort were put into the promotion of energy efficiency.

We believe the public perception of renewable energy is being harmed by contentious planning applications that create critical opposition. Anti wind farm campaigns, protests against the proposed Beaully to Denny powerline and objections to hydro proposals are all on the increase and the combined effect is of a growing opposition to renewable energy. This may also be having a related impact of increasing support for nuclear power. Public opposition to renewable energy proposals may eventually influence government policy, and developers may begin to take this opposition more seriously. A way in which developers can react positively is to seek early consultation with interested communities and to work to avoid key recreational and landscape sites with the intention of trying to achieve greater public support for renewable energy.

The SCA is concerned that the drive to increase the proportion of our energy derived from renewable sources is leading to a loss of support for renewable energy. Much of this opposition to renewable energy is coming from previous supporters of such energy. The terms renewable energy and environment-friendly have become inter-changeable, but in many cases renewable energy

proposals carry a massive cost to the environment and this leads to the levels of opposition that such proposals are encountering. We believe the quality of our environment and quality of our recreational enjoyment of our environment should be given higher priority.

The economic value of tourism, and of segments of tourism such as adventure sports tourism, should be given greater recognition for the revenue it creates for the national economy. The scenic quality of the countryside is the foundation for the majority of that tourism spending.

Appendix C

Hydro Power

The current trend in hydro development is for run-of-river schemes. With no facility for storing water, only for running the water down a pipe parallel to the river, a run-of-river scheme means that the water in the river is either at its natural level if the hydro is not operating, or at a lower than natural level if the hydro is operating. In this respect a run-of-river scheme can only be to the detriment of canoeing. Furthermore, run-of-river schemes can create dangers, especially on constricted gorge sections of rivers, when the hydro system is being switched on or off and the water level is being artificially altered. Recent trends in hydro power generation and canoe design have led to power companies and canoeists being interested in the same types of rivers.

Run-of-river hydro developers are looking for relatively small rivers with a steep gradient, usually with a waterfall to increase the overall gradient. The development of shorter playboats, made possible by the advances in rotomoulded plastic construction over the past 20 years, has opened up for canoeing the narrower and steeper creek-type rivers with steep drops. This interest in the same type of river by the two different groups is causing a significant problem, and with the lack of storage facility in a run-of-river scheme there is little space for compromise. Where the potential impact is too great we would wish to see the proposed scheme being dropped, but where the value of the river to canoeing is not that great we would wish to comment on the safety aspects of the intake and outlet features, as well as agreeing some kind of system of shut down days when the river can be paddled and requesting that an online river level gauge be made available.

The changing trends within canoeing, mainly brought about by the radical transformation in the size, strength and manoeuvrability of white water canoes, means that rivers that were considered impossible then are now increasing in popularity. This trend towards paddling narrow creek style rivers is certain to continue into the future and is likely to increase the potential for energy production and canoeing to come into conflict.

Canoeing guidebooks cannot keep up with this trend towards exploring steep narrow rivers, so energy companies referring to such guidebooks is not going to be sufficient to gather an accurate assessment of a river's interest for canoeing. Furthermore, whilst some rivers are going to be paddled by a few but never become popular, others are going to become increasingly popular and are likely to be amongst Scotland's most paddled rivers in a few years time. The SCA is going to be far more concerned about protecting the latter category of rivers than the former.

With the increase in leisure time and disposable income in modern society, canoeing has become increasingly popular and as some enthusiasts have moved on to creek rivers so the availability of conventional kayaks, sit-on-tops

and open boats has also led to increased paddling on the less extreme rivers, some of which may be of interest to hydro developers.

The avoidance of conflict between canoeing and energy companies can be avoided through the use of early consultation. The SCA responds to a number of scoping study requests for initial reaction to hydro proposals on behalf of various developers. This provides the opportunity to flag up at a very early stage the SCA's interest in a particular river.

The SCA is willing to work with the Scottish Environment Protection Agency, Scottish Natural Heritage and hydro developers in order to devise ways of avoiding conflicts of interest on strategically important Scottish rivers. We would hope that this willingness to work proactively and discuss ways of helping the industry identify key paddling rivers would be recognised and respected by all the relevant companies in the hydro power sector and that we can find ways to achieve protection for our finest rivers and burns so that they can be kept in their current state. We would enter into any discussions on the basis that the SCA retains the right to oppose proposals on any river or burn, and that we would still have the right to take part in any consultation exercise.

The SCA would like to see more commitment to micro renewable energy schemes. Micro scale hydro power has the potential to harness power from burns that are too small for canoeing, but which could produce power for single houses or small communities without causing damage to scenically attractive and recreationally important watercourses.

Appendix D

Marine Energy

The greatest source of renewable energy is undoubtedly from the marine environment. The potential for harnessing power from sources such as tides, waves and wind at sea are enormous and we believe the power generating industry will eventually make much greater use of these marine based energy sources. One of the huge advantages of harnessing tidal energy is that it is entirely predictable and when several geographically spread stations are used in combination it is capable of generating large amounts of base load power. This element of predictability gives tidal power an advantage over all other forms of renewable energy.

As marine renewable energy schemes become more commercially viable and the civil engineering capability develops further, it is likely the government subsidy system will adapt to encourage a wider range of technologies. As this happens it is inevitable that developers' interests will turn increasingly to our estuaries, coastlines and the open sea.

The greatest resource enjoyed by sea kayakers in Scotland is our stunning coastal scenery. Our concern with marine renewables is therefore the impact on the scenery, especially close to the coastline. Man made developments close to shore also represent a significant safety concern as they can force small craft such as kayaks and dinghies to go out to sea in order to travel around them, which in times of bad weather or poor visibility can make them serious hazards to navigation. For these reasons it is preferable from a kayaking point of view if marine energy developments are located further out to sea or contained below the surface of the water.

The potential amount of renewable energy available in our estuaries is massive. However, renewable energy in estuaries can be harnessed with or without the need for tidal barrages. Barrages mean that greater amounts of energy can be produced, but experience from overseas suggests that they lead to enormous ecological problems with the silting up of the estuary and a gradual reduction in the amount of power produced. We believe the tidal flow can be harnessed in estuaries without the need for barrages, and with a predictable flow of water we see this as a form of renewable energy worth harnessing as long as it is developed with recreation and nature conservation firmly in mind. Scotland's estuaries are valuable areas for recreation and canoeists make great use of these vast expanses of water. Whereas a barrage would affect the ecological balance of an entire estuary, a non-barrage power plant would have a more localised ecological impact and could be designed so that it would not have a significant impact on recreational water craft.

There are certain locations around the Scottish coast that hold the potential for truly massive amounts of tidal power to be generated. The Pentland Firth is perhaps the most obvious example of a natural power source that could one-day produce sufficient power to replace a major fossil fuel power station,

but there are several other locations around the Scottish coast that could be of interest to energy companies searching for tidal energy projects. The civil engineering capability entailed in such a proposal could be a significant hurdle to such schemes, but as that barrier is overcome we are likely to see a move towards more tidal power generation facilities being proposed. From a kayaking point of view the massive tidal races around Scotland are all of great interest to our activity and we would have concerns with any plans to develop within them any structures that would break the surface of the water. We are particularly concerned in this respect for the protection of Corryvreckan, which is one of a handful of tidal whirlpools in the world. Due to our concerns regarding safety and seascape already discussed in this policy document the SCA would wish to be consulted on any such planning proposals.

Structures on the surface of the water such as the Polaris wave machine and structures that break the surface of the water such as turbines mounted on vertical posts could present small boat users such as kayakers with serious safety issues. The risk of collision combined with the navigational challenge of going around such structures could be quite significant, so we would always welcome the opportunity to comment on proposals for such developments.

Our final concern with marine renewable energy projects is the impact of any landfall facilities. Shore based infrastructure such as servicing facilities for sea based plant, wave machines and interface equipment between renewable energy generators and the grid have the potential to impact on the coastal landscape and restrict access to and along the foreshore. From a safety point of view, as well as aesthetic and access, we would wish to be consulted on proposals for such shore based facilities. The SCA's policy is that any shoreside infrastructure associated with renewable developments should be designed to minimise encroachment on the foreshore and that access to the foreshore from the land and water is preserved for kayakers and other recreational users. Any downside caused by the developer's shoreside infrastructure should be balanced by creating better pathways, car parking and access to the foreshore and water for recreational purposes.

17 December 2008



Scottish Natural Heritage Dualchas Nàdair na h-Alba

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

Your ref: Final NRP Report

Our ref: cns/ren/tide/SPR/Sound of Islay/66076

Date: 28th January 2011

Fiona Thompson
Marine Renewables Licensing Manager
Marine Laboratory
PO Box 101
375 Victoria Road
ABERDEEN AB11 9DB

By email to: Fiona.thompson@scotland.gsi.gov.uk

Dear Fiona,

NRP REPORT – SOUND OF ISLAY – SCOTTISH POWER RENEWABLES

Thank you for sending the above documents to us for comment and advice.

SNH Position and Summary of our advice

In our view this proposal is likely to have a significant effect on the qualifying interest of the South-East Islay Skerries Special Area of Conservation (SAC). We have looked at the information provided and we are unable to conclude that there will be no adverse effect on the integrity of the South-East Islay Skerries SAC. We outline in the Annex the information which, in our view, would help reach such a conclusion. Marine Scotland is now required to undertake an appropriate assessment in view of the site's conservation objectives for its qualifying interest – harbour seal (*Phoca vitulina*).

We have also concluded that for the following Special Areas of Protection (SPAs) in our view it is unlikely that the proposal will have a significant effect on any qualifying interests either directly or indirectly. **An appropriate assessment is therefore not required.**

- **North Colonsay and Western Cliffs SPA**
- **St Kilda SPA**
- **Rum SPA**

No further work is therefore required in relation to these SPAs.

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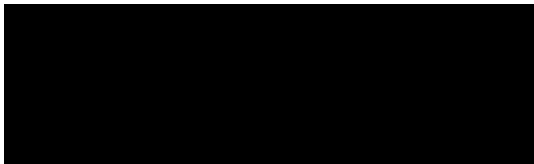
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Overall we feel that the data presented in this report does characterise the use of the Sound of Islay by birds and marine mammals however there remain areas of uncertainty that require further investigation.

Appendix 1 contains our detailed advice on the additional information provided in the survey reports and our advice on further assessment that may be required.

We would welcome a meeting to discuss this project with the applicant and Marine Scotland to discuss the issues raised in our response, and to agree environmental monitoring and mitigation plans. If you require any further information or advice from SNH please contact Ruth De Silva on 01856 875302 or ruth.desilva@snh.gov.uk.

Yours sincerely



Jane Clark
Head of Renewables

Appendix 1

Birds

Overall we agree with the findings of the bird assessment update (November 2010).

North Colonsay and Western Cliffs SPA – kittiwake.

It is apparent from the ES and ES update for the proposed Sound of Islay tidal turbine array development, that kittiwake can occur in very large numbers in the Sound of Islay. An estimate of the total number of birds seen passing through the Sound during the months of July and August 2009 was 23,000 birds (based on the observed passage rate). This greatly exceeds the total of both SPAs within foraging range. However, this passage rate was many times smaller in 2010. In addition this species breeds from May through June and the large number of birds observed occurred during the post-breeding dispersal and migration phase of the birds' annual cycle. When the data from the ES, for the period of active breeding, is examined from both 2009 and 2010, it is clear that very few birds are actively making use of the Sound.

As kittiwake is a surface feeding bird there is no route to direct impact (collision) for a development for tidal turbines. However displacement through direct and indirect impacts on supporting habitats is possible. There are also potential impacts through changes to flow patterns reducing upwelling downstream of the turbine(s). However, very few birds occurred during the core breeding period. Rather the core period of use of the site by kittiwakes was during the post-breeding dispersal/migration phase and during this period any potential impacts through displacement or habitat loss are much less important than during the breeding season as birds are not tied to a limited foraging range from the nest site. In addition the 2010 data suggests that birds are not dependant on this site for passage on an annual basis.

Given that birds do not use this site during the breeding season, that passage rates include birds from many more colonies than the 2 SPAs discussed above and that the birds will be less dependant on limited habitat (as they are not tied to a breeding site) we can now advise that, despite clear connectivity with this SPA, there is little potential impact on the conservation objectives for the site. **In our view it is unlikely that the proposal will have a significant effect on any qualifying interests either directly or indirectly. An appropriate assessment is therefore not required and no further work is required in relation to this SPA.**

However due to the lack of empirical evidence on post construction impacts, we highlight the high importance of good quality post-construction monitoring to quantify these impacts.

St Kilda SPA – Northern Gannet and Rum SPA – Manx Shearwater.

It is apparent from the data presented that both northern gannet and Manx shearwater use the site and that numbers using the site did not change substantially between survey years. While connectivity may be hard to assess without further study the majority of the individuals of both of these species breed within SPAs. While other SPAs have these species as qualifying features it is likely that the majority of birds may have originated from the St Kilda and Rum SPAs which are within the general area with the highest populations. Therefore we assume connectivity with St Kilda SPA for northern gannet and Rum SPA for Manx shearwater. Connectivity with other SPAs is possible, but we think it likely that the proportion of birds from other sites is relatively small.

Therefore, we advise that there is connectivity with Rum SPA for Manx shearwater and St Kilda SPA for northern gannet. Due to their foraging behaviour (both are diving species) both northern gannet and Manx shearwater could be directly impacted through collision with the blades of the turbines. However, the numbers of both species occurring within the proposed development footprint are such that even if all of these birds were killed it would be unlikely to have an adverse effect on the site integrity of either the St Kilda SPA (for northern gannet) or

Rum SPA (for Manx shearwater). Both of these colonies, while representing large proportions of the global populations, are large and in favourable conservation status. While population trends of Manx shearwater are uncertain due to methodological changes the trend for gannet has been a steady 2% per annum increase in population size (JNCC 2010). Thus we have concluded that even if all of the birds estimated to occur within the footprint of the site were killed by turbines it would not impact on the conservation objectives of the sites. **In our view therefore it is unlikely that the proposal will have a significant effect on any qualifying interests either directly or indirectly. An appropriate assessment is therefore not required and no further work is required in relation to St Kilda SPA or Rum SPA.**

Due to the lack of empirical evidence on post construction impacts, we highlight the high importance of good quality post-construction monitoring to quantify impacts.

Additional advice

While it is apparent that the additional data has not substantially changed our assessment it was valuable to note that the numbers of kittiwakes recorded was lower in 2010 than 2009. We disagree with the assessment that the large number seen during 2009 was “not an annual phenomenon” as it may be that 2010 was the unusual year and not 2009. However, it does indicate that there is some interannual variability in the use of the site by this species, but that this use *may* be high in an unknown number of years.

We disagree with the simplistic argument made that black guillemots tend not to forage at greater depths due to the increased energetic costs. The interaction between the costs of foraging and the gain from prey intake is complex. Diving birds will forage where the balance of costs and benefits is in their favour within the bounds of their physiological limits. The pattern of use of the area by diving bird species is likely to be much more complex than the simple water depth hypothesis described here.

There are likely to be complex interactions between water depth, flow speed, benthic habitat and prey distributions that cannot be encompassed by a simple model of water depth for some species.

It is important to note that cumulative impacts need to be assessed in relation to all plans and projects, including from scoping stage on, not only those consented.

The survey methods proposed stated that “Seabird scans will only be conducted in conditions of below sea state 5 (over the majority of the visible area)”. Future monitoring should only be conducted under such conditions (ie sea states 0 – 4) and we would emphasise the importance of using sea state as the determining factor as to whether or not conditions are suitable for seabird survey, rather than individual recorder’s judgements on visibility, as may have been the case during some surveys.

Marine Mammals

It is our opinion that the surveys and data collected and described in this report (3/12/2010) provide much of the data needed to characterise marine mammal and basking shark use of the proposed development area in the Sound of Islay. The method used was logical and appropriate.

We note that the surveys at no point achieved the required effort (32 hours per month), however we are content that the few extra hours that would be required to achieve this would not alter the conclusions of the report.

South-East Islay Special Area of Conservation (SAC).

From the data and conclusions presented in this report and the original ES, it is not possible to determine, conclusively, if there is connectivity or not between harbour seals using the Sound of Islay (either in the water or at haulouts) and the South-East Islay Skerries SAC. The data presented do suggest that there is a substantial number of harbour seals using the Sound of Islay and these are present both in the water and hauled out. As the Sound of Islay

is well within foraging range of harbour seals from the SAC we would expect the animals present in the Sound to also use the nearby SAC haul-out more than seals from other areas. The Cunningham et al. (2008) tracking work suggests that seals using the SAC actively use large areas of the west of Scotland, North Channel and north coast of Ireland. However as only 10 animals were tagged from a probable "population" of at least six hundred and there was already high variation in site use among the tagged animals we can not conclude from this that seals from the SAC do not use the Sound of Islay. We advise that disturbance from development activities in the Sound of Islay is highly unlikely to propagate through the water to animals actually at the SE Islay Skerries SAC but that there remains likely connectivity and potential impacts on harbour seals from the SAC travelling to and using the Sound.

Our advice therefore remains that there is likely connectivity between the development and South East Islay Skerries SAC and that the conservation objectives for the site could be affected by the development. It is our view therefore that **this proposal is likely to have a significant effect on the qualifying interest of the South-East Islay Skerries Special Area of Conservation (SAC). As a consequence Marine Scotland is required to undertake an appropriate assessment in view of the site's conservation objectives for its qualifying interest – harbour seal (*Phoca vitulina*)**. Our advice on what this appropriate assessment should be based upon remains the same as detailed in our response of the 20th September 2010, but we would expect any such assessment to focus upon collision risk and upon potential barrier effects arising from construction activities or the presence and operation of turbines that might limit or prevent passage of seals to and from the SAC via the Sound..

The use of an encounter/collision model would help to determine whether seals are likely to be impacted by the operational turbines.

Environmental Mitigation and Monitoring Plan (EMMP)

An appropriate, detailed and agreed EMMP will be critical for this development, both to determine the nature of impacts on birds, marine mammals and basking sharks, but also to inform and focus any work required through the appropriate assessment for the SAC, and to minimise potential impacts of the development on important natural heritage interests.

In order to put in place an appropriate EMMP, potential impacts first need to be scoped and potential means of monitoring analysed. Of particular importance will be consideration of how harbour seals are using the Sound and their potential link with SE Islay Skerries SAC. We consider that any measures in the EMMP that are put in place to determine interactions of the development with seals, will also determine interactions with cetaceans and basking sharks.

In order to determine the nature of the potential impacts of the development on seals using the Sound of Islay, we recommend that the use of the Sound by seals is investigated in detail. For example, consideration should be given to determining the direction of seal movement through the Sound, whether they are foraging or transiting, whether they're using specific sides of the Sound for certain activities, behaviour at haulouts etc. This will inform the potential nature of any interactions, for example if there could be barrier effects, displacement from key foraging areas, disturbance to breeding populations at haulout etc. Consideration may also need to be given monitoring harbour seal haulouts both within the Sound of Islay and the South-East Islay Skerries SAC haul outs.

We would be keen to discuss details, including duration, methods, and timing of an appropriate survey with SPR, Marine Scotland and Natural Power.

Cetaceans.

It appears that the Sound of Islay is not an important site for harbour porpoises or most other cetaceans except bottlenose dolphins. For harbour porpoise and other cetacean species we advise that the development is unlikely to have a measureable adverse impact.

There is the potential however for a significant impact on bottlenose dolphin.

There is a small population of bottlenose dolphins (approximately 30) using the mainland side of western Scotland and sightings of these animals in the Sound of Islay were relatively high given their wide range (Cape Wrath to the Clyde). Because of low rates of reproduction this species is very easily impacted by relatively low rates of additional mortality (eg Moray Firth population viability studies carried out by the University of Aberdeen). These animals are also inquisitive and are likely to inspect novel stimuli such as turbines. The combination of their use of the Sound of Islay site, low numbers in the west coast population, low reproductive rates and probability of approaching turbines means that close encounters are likely and if injurious would impact the conservation status of this population. Consequently we advise that the collision monitoring, as part of the EMMP, will have to be able to detect and respond to relatively rare events with potentially significant consequences, such as collision from a bottlenose dolphin.

Other

Otters

The data presented demonstrates that the Sound of Islay is widely used by otters. The most heavily used areas tend to be along the coasts, however an otter was recorded in the middle of the Sound. If this otter was actively foraging (diving) there is the potential that otters could be impacted by the operation turbines. The EMMP should be designed to include detection and mitigation for the potential interaction of otters with the operational turbines. Onshore and cabling works should consider disturbance to otters, including potential disturbance to holt/resting sites.

Environmental Mitigation and Monitoring Plan (EMMP)

We advise that the Environmental Monitoring Plan (EMP) should comprise of two comprehensive and consistent documents, and that these be submitted and agreed in writing with MS and SNH prior to works commencing. The schedule for producing these plans must also be agreed with MS to allow for sufficient time for consultation and discussion prior to installation. These would be:

- a) An installation and decommissioning monitoring and mitigation plan.
- b) A post-construction monitoring and mitigation plan.

We would welcome a meeting with SPR/MS to agree the details of these plans and schedule for production and review. We recommend, further, that all baseline data gathering, and post-construction monitoring, programmes are subject to annual review in order that these may be adapted, and appropriate mitigation put in place, as necessary.

Reference

Cunningham, L., Baxter, J.M., Boyd, I.L., Duck, C.D., Lonergan, M., Moss, S.E. and McConnell, B. **2008**. Harbour Seal Movements And Haul-Out Patterns: Implications For Monitoring And Management. *Aquatic Conserv: Mar. Freshw. Ecosyst*. DOI: 10.1002/Aqc.983



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

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

Fiona Thompson
Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

Your ref: Sec 36/ Sound of
Islay/Argyll.

Our ref: CNS/REN/TID/ Scottish
Power Renewables - Sound of
Islay/63260.

Date: 20 September 2010

Dear Ms Thompson,

ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND)
REGULATIONS 2000.

SECTION 36 APPLICATION FOR A DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY, ARGYLL.

Introduction

Thank you for consulting Scottish Natural Heritage (SNH) on the above proposal which we received on the 2nd August 2010. Thank you, also, for granting an extension to the deadline.

SNH POSITION AND SUMMARY OF OUR ADVICE

This proposal could raise natural heritage issues of international and national importance. We advise that there are likely to be significant effects on qualifying interests from the following Natura sites:

- South-East Islay Skerries Special Area of Conservation (SAC)
- North Colonsay and Western Cliffs Special Protection Area (SPA)
- Rum Special Protection Area (SPA)
- St Kilda Special Protection Area (SPA)

Although some of these SPA and SAC sites are considerably distant from the Sound of Islay, they all fall within the known foraging distances for the protected species concerned.

Following our own appraisal we have been able to determine that there will not be an adverse effect on site integrity for the following sites:

- North Colonsay and Western Cliffs Special Protection Area (SPA)

- Rum Special Protection Area (SPA)
- St Kilda Special Protection Area (SPA)

There is, however, insufficient information in the application, at this time, to determine whether the proposal is likely to have an adverse effect on site integrity on the harbour seal – a qualifying interest of the South-East Islay Skerries SAC.

We therefore **object to the proposal** until a minimum of 12 months of wildlife observation data, collected to the agreed methodology, has been submitted and further appraisal has been carried out to assess whether or not there will not be an adverse effect on site integrity of the South-East Islay Skerries SAC.

Appendix 1 contains our detailed advice on our current appraisal of the application and supporting ES. We also provide detailed advice on the further appraisal work required to inform the appropriate assessment for the South-East Islay Skerries SAC. We do have concerns regarding the data collection and presentation in support of this application and would welcome the opportunity to further discuss this with both the applicant and Marine Scotland.

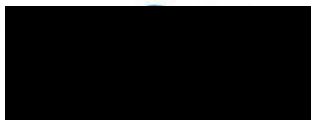
It is vital that that there is a clear understanding on baseline conditions and therefore the potential interaction between mobile protected species prior to, deployment and operation of this commercial array. This will help inform the management of this and future devices in this newly emerging technology. We are keen to support this work and to assist developers and Marine Scotland in taking forward this work to ensure that appropriate developments are sited in appropriate locations to minimise natural heritage impacts.

Appendix 2 contains our advice in relation to content of the ES.

FURTHER INFORMATION AND ADVICE

We would welcome a meeting to discuss this project with the applicant and Marine Scotland to discuss the issues raised in our response, and to agree monitoring and mitigation plans. In respect of the current application, we would be grateful if you could copy us into your formal decision in due course. In the meantime, if you require any further information or advice from SNH please contact Ruth De Silva on 01856 875302 or ruth.desilva@snh.gov.uk.

Yours sincerely



Susan Davies
Director, Policy and Advice.



Scottish Natural Heritage, Great Glen House, Leachkin Road, Inverness, IV3 8NW
Tel 01463 725000. Fax 01463 725067. www.snh.gov.uk

Appendix 1 – Appraisal of the key impacts of the proposal.

Background

The proposed development is for the installation of 10 x 1MW Hammerfest Strom (HS) tidal energy converters in the Sound of Islay. The devices will be installed in water of over 48 m depth, south of Port Askaig. The seabed cable will link to Jura to connect to the grid via a sub-station.

The HS tidal device is fully submerged and gravity based.

This is the first large scale tidal development of its kind in Scottish Waters and is being viewed as a “Demonstration tidal Array”.

Proposed installation is early 2013.

1 GENERAL ASSESSMENT OF SUPPORTING INFORMATION

This ES has been submitted with less than 12 months baseline survey – 7 months of monitoring with only 2 months of full effort (as outlined in the baseline survey methodology). There are no survey data for the months of December, January, or March, and very low survey effort for February and April. As a result all comments within the ES that state the species were or were not present throughout the year are presumptuous and not based on empirical data. **It is therefore not possible to accurately assess whether the proposed development site is or is not being used by any significant populations of sensitive bird, marine mammal or fish species and therefore it is not possible to assess potential impacts of the development on natural heritage interests.**

As a result, our advice presented here outlines the main risks associated with this development from a natural heritage and legislative viewpoint, and is necessarily precautionary. Following the provision of a full 12 months of baseline data, we may be able to review some of this advice.

1.1 Baseline survey

Given the current shortage of baseline data, SNH are unable to advise Marine Scotland fully on the potential impacts of the development on important natural heritage interests. Without a good baseline, it will also be difficult to establish, from post-construction monitoring, whether the proposed development is having an impact on the environment. With the current level of baseline data it is likely that subsequent comparisons will suffer from low statistical power and a lack of understanding of normal inter-annual variability at the site under baseline conditions.

A good baseline is necessary:

1. to assess the potential of the development to impact on the receiving environment;
2. against which to assess post-construction monitoring;
3. to allow any change to be determined with sufficient statistical power.

We therefore strongly recommend that a minimum of 12 months of data, at required effort (32 hours per month), be submitted to Marine Scotland as soon as possible, in order that more informed advice may be provided.

We will be able to recommend, after the first full year of data has been submitted, whether a further 12 months will be required or not, pre-installation.

Usually we recommend that two years of baseline survey of mobile species, for a development of this scale and type, is necessary in order to understand the inter-annual variation at the site.

1.2 Environmental Monitoring and Mitigation Plans.

We welcome the applicant's commitment to ongoing monitoring and adaptive management of the development and their desire to agree their monitoring strategy with SNH. Sections 24.3 – 24.7 of the ES outlines SPR's proposed post-installation monitoring and table 24.1 outlines SPR's monitoring and mitigation commitments.

Whilst SPR have clearly committed to certain monitoring measures for different interests, we advise that there are inconsistencies in approach. For example 1 year of post construction monitoring for marine mammals is proposed, but up to 10 years for birds, plus the set-up of an Ornithological advisory group. We advise that the Environmental Monitoring Plan (EMP) should comprise of two comprehensive and consistent documents, and that these be submitted and agreed in writing with MS and SNH. The schedule for producing these plans must also be agreed with MS to allow for sufficient time for consultation and discussion prior to installation. These would be:

- **a) An installation and decommissioning monitoring and mitigation plan.**
- **b) A post-construction monitoring and mitigation plan.**

We would welcome a meeting with SPR/MS to agree the details of these plans and schedule for production and review. We recommend, further, that all baseline data gathering, and post-construction monitoring, programmes are subject to annual review in order that these may be adapted, and appropriate mitigation put in place, as necessary.

2 NATURA INTERESTS

There are several sites of European importance which need to be considered in relation to this application.

The legislation pertaining to sites of European Importance can be accessed by following this link:

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/international-designations/natura-sites/natura-site-protection/>

2.1 Special Areas of Conservation (SACs)

2.1.1 South-East Islay Skerries

South-East Islay Skerries is designated for harbour seals (*Phoca vitulina*) and lies approximately 18km from the Sound of Islay. Due to the presence of harbour seals in the Sound of Islay, and the proximity of the sound to the **South-East Islay Skerries SAC** (well within the foraging range of harbour seals), it is likely that there is strong connectivity between the SAC and the Sound of Islay. The SAC is currently in Favourable – Maintained status, meaning that the population at the SAC is stable.

This link takes you to the conservation objectives for the site.

http://gateway.snh.gov.uk/pls/portal/Sitelink.Show_Site_Document?p_pa_code=8381&p_Doc_Type_ID=29

In our view this proposal is likely to have a significant effect on the qualifying interest of this site. As a consequence Marine Scotland is required to undertake an appropriate assessment in view of the site's conservation objectives, for its qualifying interest – harbour seal.

We advise that the appropriate assessment should consider the following aspects in relation to the deployment of the demonstration tidal array for the following conservation objectives:

- Population of the species as a viable component of the site
- No significant disturbance of the species

To ascertain that no adverse effect on site integrity of the SAC will occur, consideration in the appropriate assessment should be given to each of the development phases i.e.: construction, operation and decommissioning.

Construction

Consideration of the following:

- timing of deployment,
- duration and type of activities,
- vessel movements (types, numbers and routes)

Operation

Consideration of the following:

- collision risk - calculation of potential collisions per annum and throughout the duration of the deployment and the impact this may have on the population of the South East Islay Skerries. Any calculation should be related to an estimate of the Potential Biological Removal (PBR) of harbour seals in the meta-population as calculated by SMRU.
- Timing and duration of operation and maintenance activities

Decommissioning

Consideration of the following:

- Method of retrieval
- Timing and duration of activities related to retrieval
- Vessel movements (types, numbers and routes)

We advise for the remaining conservation objectives, that the location and development of a tidal array will not have a likely significant effect on the South East Islay Skerries SAC for harbour seals and therefore no further assessment of the proposal in relation to these objectives need be considered.

We are happy to provide further advice as this appraisal work is being undertaken and prior to the appropriate assessment being finalised. Based on our current appraisal of the data available we advise that we consider it unlikely that the effect of the development on the seal interest of the SAC will prevent this demonstration project proceeding.

2.2 Special Protection Areas (SPAs)

Due to the presence of large numbers of black-legged kittiwakes and the presence of wide ranging northern gannet and Manx shearwater, it is clear that there is connectivity to one or more SPAs. These SPAs are most likely to be:

North Colonsay and Western Cliffs SPA – black-legged kittiwake

Rum SPA – Manx shearwater

St Kilda SPA – northern gannet.

In our view this proposal is likely to have a significant effect on the qualifying interest(s) of these sites. **As a consequence Marine Scotland is required to undertake an appropriate assessment in view of these sites' conservation objectives for their qualifying interest(s).** To help you do this, we would further advise that, in our view, based on the information provided, **the proposal will not adversely affect the integrity of the sites.** See below for advice pertaining to these sites.

2.1.1 North Colonsay and Western Cliffs SPA

While black-legged kittiwake seem to occur in large numbers during passage and within the development footprint during the breeding season, it is unlikely that the proposed development will have direct impacts on the birds using the site. Due to the surface feeding behaviour of this species, direct impact from collision with the device is very unlikely. The potential for indirect impacts remains but since this technology is very new there is no empirical evidence for the nature or scale of impacts. We therefore highlight the high importance of good quality post-construction monitoring to determine these impacts.

This link takes you to the conservation objectives for the site.

http://gateway.snh.gov.uk/pls/portal/Sitelink.Show_Site_Document?p_pa_code=8555&p_Doc_Type_ID=29

2.1.2 Rum SPA – Manx shearwater and St Kilda SPA – northern gannet

Both northern gannet and Manx shearwater could be directly impacted through collision with the blades of the turbines. Northern gannet are known to forage to depths of 20 (Garthe et al 2000) to 30m (Brierley & Fernandes 2001). While there is no empirical data on the diving depth of Manx shearwater, similar species have been recorded diving to depths that could bring them within the collision risk zone of the proposed turbines (Burger 2001). However, the numbers of both species occurring within the proposed development footprint are such that even if all of these birds were killed it would be unlikely to have an adverse effect on the site integrity of both the St Kilda SPA (for northern gannet) and Rum SPA (for Manx shearwater). Both of these colonies, while representing large proportions of the global populations, are large and in favourable conservation status. While population trends of Manx shearwater are uncertain, due to methodological changes, the trend for gannet has been a steady 2% per annum increase in population size (JNCC 2010). Thus we have concluded that even if all of the birds estimated to occur within the footprint of the site were killed by turbines it would not represent an adverse effect on site integrity for these SPAs.

This link takes you to the conservation objectives for Rum SPA

http://gateway.snh.gov.uk/pls/portal/Sitelink.Show_Site_Document?p_pa_code=8574&p_Doc_Type_ID=29

This link takes you to the conservation objectives for St Kilda SPA.

http://gateway.snh.gov.uk/pls/portal/Sitelink.Show_Site_Document?p_pa_code=8580&p_Doc_Type_ID=29

2.3 European Protected Species

All species of European Protected Species (EPS) are protected under the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) and the legislative requirements for EPS and a list of the offences in relation to EPS are provided in this link.

<http://www.snh.gov.uk/protecting-scotlands-nature/protected-species/legal-framework/habitats-directive/euro/>

Where it is proposed to carry out works that could impact upon EPS, consideration should be given to whether the proposals could constitute an offence under the Habitats Regulations. If this is the case, then it may be possible to undertake the works under license from the appropriate licensing authority, which in this case is the Scottish Government. They can be contacted at: Species Licensing Team, Landscapes and Habitats Division, Rural Directorate, Scottish Government, Room 1-A North, Victoria Quay, Leith, Edinburgh, EH6 6QQ.

2.3.1 Cetaceans

All species of cetacean are European Protected Species (EPS).

From the data provided we consider that the installation and operation of the Hammerfest Strom tidal stream devices could potentially result in actions that are listed as offences under the Habitats Regulations in respect of cetaceans, such as collision risk with rotors (operational) or disturbance due to noise produced by the operational turbine and installation vessels.

Given the lack of clear evidence allowing accurate assessment of presence or absence of cetacean species in the Sound of Islay and therefore impact, we advise that an EPS licence is required for installation, decommissioning and operational phases of this development.

To minimize potential impacts of the proposal on cetaceans we recommend that the following conditions are attached to any license granted:

- That prior to any works taking place, an Environmental Monitoring Plan (EMP) outlining the specific monitoring and mitigation measures to be put in place must be developed and agreed, in writing, with Marine Scotland and SNH. The schedule for producing the EMP must also be agreed with MS to allow for sufficient time for consultation and discussion prior to installation. Considering the duration of the installation (72 days not including contingency or bad weather down time) and proposed timing of installation (spring-summer 2013), the EMP should provide details regarding the use of a Marine Mammal Observer (MMO) and utilisation of 'soft start' techniques. This MMO protocol should be in place during all installation works. If it is necessary to work at night then work should commence during daylight hours when an MMO is in place and not during the hours of darkness or low visibility when an MMO would not be viable;
- The EMP must also outline a strategy to mitigate the risk of collision impacts on cetaceans. The strategy should include: i) monitoring of collisions, ii) triggers for implementing mitigation and iii) mitigation measures such as shut-down.

2.3.2 Otters

As stated in the ES, most of the coastline of Jura and Islay is considered likely to have otters present.

The SNH publication "Otters and Development" includes advice on appropriate mitigation. See:

<http://www.snh.org.uk/publications/on-line/wildlife/otters/default.asp>

We advise that an EPS licence may be required relating to nearshore, intertidal and onshore cabling works and substation.

3 NATIONAL INTERESTS

3.1 Seals

The ES states that there are high numbers of both harbour and grey seals recorded from the Sound of Islay, plus there are known haul out and breeding sites within the Sound itself.

Both harbour and grey seals are protected under Annex II and Annex V of the Habitats Directive 1992. A new seal licensing system under the Marine (Scotland) Act 2010 is being brought in January 2011. Additional protection for seals means that it will also be an offence to disturb seals at haul out sites.

Though there has been a sharp fall in the UK population of harbour seals – particularly in Shetland, Orkney and Firth of Tay - the populations in Argyll remain stable at present. The SACs in these areas are in favourable maintained condition (as assessed through site

condition monitoring) but overall the conservation status for harbour seals at a UK level has been assessed as 'unfavourable-inadequate'.
The UK Grey seal population remains stable.

Oronsay and South Colonsay SSSI.

Oronsay and South Colonsay SSSI is designated for grey seal (*Halichoerus grypus*). The Sound of Islay is within 20km of the designated site. Grey seal populations in the site remain stable and the designated site supports one of the most productive pupping sites in the area.

It is not possible, given the lack of data presented as detailed above, to assess the impact of the development on the SSSI or locally important seal populations. **We therefore advise that the installation and operation of tidal turbines in the Sound of Islay may affect seals feeding or travelling through the Sound.** We therefore recommend that a mitigation and monitoring plan, for all phases of the development is submitted, and agreed in writing by Marine Scotland and SNH. The schedule for producing this EMP must also be agreed with MS to allow for sufficient time for consultation and discussion prior to installation commencing. We recommend that the plan for cetaceans outlined above would also be appropriate for seals.

Additional assessment, for example through use of seal telemetry, may be required to assess the potential impact on Oronsay and South Colonsay SSSI.

If dynamic positioning vessels are to be used during installation, we further recommend that for seals, the monitoring and mitigation plan should include additional monitoring of the propeller end of the vessel during installation operations.

3.2 Birds

It is not possible to determine from the data presented whether birds of national importance are present in the Sound of Islay throughout the year. Additional data, as outlined above under "baseline survey", should be submitted by the applicant in order to determine presence or absence of nationally important species.

3.3 Basking sharks

Basking sharks (*Cetorhinus maximus*) are assessed as likely to use the area for passage and/or feeding. Basking sharks have full protection from intentional capture or disturbance in British waters (up to 12 miles offshore) under a 1998 listing on Schedule 5 of the Wildlife and Countryside Act (1981). They are also listed under CITES Appendix III in UK waters.

It should be noted that as a Schedule 5 species under the WCA, it is an offence to disturb or injure basking sharks. At present there is no licensable activity which allows for this disturbance, as for EPS. However, by the time this development is to be installed, in 2013, there may be a mechanism for licensing such an activity under future legislation.

We welcome the applicant's commitment to mitigate during construction activities by way of a land-based observer acting as an MMO to inform installation works, if basking sharks are present. However we also advise that there is a potential collision risk with the operational device. We therefore recommend that **the monitoring and mitigation plan to be developed for marine mammals and birds be extended to include basking sharks.**

3.4 Benthos

Throughout the ES it is stated that there are no habitats or species of conservation importance. We disagree with this assessment and advise that many of the habitats described within the proposed development area are identifiable as Reef, which is an Annex 1 habitat. These habitats are, however, widespread throughout Argyll. We recommend that

works, such as cable trenching, are undertaken in a manner that will minimise impacts on these habitats.

The ES also notes that maerl is present in transect 26. The quality of the supporting map is not of good enough quality to determine where in the transect the maerl is located. It is also unclear whether additional survey work is to be undertaken to assess the extent of the maerl.

Maerl is a UKBAP priority habitat and is included on the draft list of Scottish Marine Priority Features¹.

We recommend that detailed mapping of this area is carried out to ensure that all turbines, foundations and associated infrastructure avoid the area of maerl.

3.5 NSA

We concur with the views of the ES which identify impacts on the National Scenic Area as minor and support the intention to minimise the construction impacts on the landscape by the choice of colour for the GRP structures of the sub-station and lack of intrusive security fencing.

3.6 Terrestrial habitats and species.

We concur with the findings of the ES on the minimal impacts of the terrestrial development where the undersea cable comes ashore and of the receiving sub-station.

3.7 Cumulative Impacts

We agree with section 2.41 on developments to consider along with the current proposal with respect to cumulative impacts.

¹ Marine Protected Areas in the Seas around Scotland: Guidelines on the selection of MPAs and development of the MPA Network, draft March 2010.

<http://www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork/draftmpaguidelines>

Appendix 2 – Environmental Assessment – technical details

5.33 – Antifouling protection. - we welcome the applicant’s commitment to use only marine standard materials in hydraulic and corrosion protection systems. However details of the “additional blade cleaning technology” to be tested should be provided and agreed with MS prior to operation.

5.37 Gravity base foundation – this section states that it is possible that the foundations may be required to be pinned to the seabed as part of the installation procedure. Pinning can potentially be disturbing to marine mammals and basking sharks. If this is to be carried out, details should be submitted and agreed in writing with MS and SNH prior to commencing operations to ensure disturbance is minimised. The schedule for producing the EMP must also be agreed with MS to allow for sufficient time for consultation and discussion prior to installation commencing. Consideration of pinning operations should be considered as part of the Environmental Monitoring and Mitigation Plan.

5.9 Operation and Maintenance – states that maintenance will occur once every 5 years. It is not clear whether all devices will be maintained at roughly the same time, or whether maintenance of machines will be staggered. Maintenance operations can be disturbing to wildlife therefore details of maintenance operations and the maintenance schedule should be provided and agreed with MS prior to commencing. An EPS licence may be required for maintenance operations.

7.10 and throughout – reference is made to the EMEC EIA guidance throughout the document. This document is currently being reviewed by EMEC with advice from SNH. This guide was designed primarily for test scale deployments and is not necessarily appropriate for the scale of development being considered in the Sound of Islay. A more appropriate guide would be the draft guidance on EIA and HRA for marine renewables, a copy of which can be found at the following link.

<http://www.scotland.gov.uk/Topics/marine/Licensing/marine>

8.48 – SPR state that no assessment of impact of mooring anchors for barges is yet possible as details of anchoring have not yet been determined. We advise that anchoring can cause scouring and disturbance to benthic interests over large areas. We therefore request that details of anchoring and an assessment of impact are submitted to MS and SNH prior to operations commencing to ensure that appropriate mitigation can be put in place to minimise impacts.

9.17 Phocidae – commentary is provided here on European Protected Species. Seals are not European Protected Species. This section should be amended accordingly.

9.42 impacts – the ES concludes that rock dumping will be substantially quieter than piling or pinning. There are no noise assessments provided to justify this conclusion. The ES also concludes that increased vessel usage of the Sound by installation/maintenance vessels should not make a difference due to the presence of existing traffic in the Sound. Animals may not tolerate an increase in vessel usage and noise, particularly if the additional vessels are operating at different frequencies.

Table 9.5 – we do not agree with the conclusions in this table as, in our opinion, the potential impacts on marine mammals are underestimated.

13.73 Barrier Effect – the ES states that “lack of evidence of importance of the Sound of Islay as a passage way or feeding/breeding area for elasmobranchs suggests that the magnitude of such an impact should be considered low”. We disagree. Lack of evidence or

data does not lead to the conclusion that impacts will be low, but suggests that further data is required to fully assess potential impacts.

13.8 Impacts of electromagnetic fields – this section states that it is likely that B and iE fields will be detectable by electrically and magnetically sensitive species, though the proposed cable to be used is thought to reduce B-field emissions to below earth's geomagnetic field. The iE field is assessed as being detectable "at a distance of 20m from the cable" and that the magnitude of the field is assessed as likely to fall at the boundary between "likely attraction and repulsion" of elasmobranch species. It also states that there are unknowns relating to distribution and habitat preference of elasmobranchs in the Sound of Islay. However the conclusion of the section is that there will be negligible impacts as there is no evidence to show detrimental impacts on elasmobranch species. We advise that a lack of data does not lead to an assumption of no impact and that post-construction monitoring should include EMF impacts on elasmobranch species.

13.93 – the statement in the ES "Basking sharks are typically recorded close to the surface and will therefore pass over the turbines" is incorrect. Basking sharks are known to dive to depths between 0-80m before going to much deeper water (1400m+) off the continental shelf². It is therefore entirely possible that basking sharks could collide with the operational turbines.

14.11e – there is no biological explanation given for the arbitrary cut off of 25 km from SPAs for inclusion in the ES for consideration. Consideration of SPAs and other designated sites should be based on the ecology of the notified feature(s).

14.42 – we disagree with the assessment that there is a low likelihood that additional surveys will identify additional bird sensitivities or elevate existing sensitivities. There is no empirical data presented to determine which species make use of the site in what numbers during 5 months of the year. There is therefore insufficient data to determine that "current information is..... sufficient for the purpose of evaluating effects of the proposed development".

14.57 & 14.58 – it cannot be stated that red-throated divers occurred in small numbers "throughout the year" when no survey data was collected for 5 months of the year. It is therefore also not possible to make a comparison with the overall wintering population of the NHZ when there was no empirical data collected across the winter.

14.63 – it is stated that it is unprofitable for black guillemots to forage in depths deeper than about 40m. This statement is not referenced and does not agree with the known data on the diving behaviour of black guillemot. They are known to dive as deep as 50m.³

14.68 – it is stated that common scoter were "highly variable between years". However, since less than one year of data has been collected this cannot be determined. Again it is not possible to compare the data from this study with the wintering population in the NHZ since very little winter data was collected.

Table 14.2 – we disagree with the codings of Nature Conservation Importance in Table 14.2. High NCI should include birds protected as qualifying features of SPAs and Ramsar sites. In addition there is no definition given on what a "regional" population refers to and no biological justification is given for the threshold of 1%.

² Gore et al (2008). [Transatlantic migration and deep mid-ocean diving by basking sharks.](#)

³ Piatt, J.F and Nettleship, D.N 1985. Diving depths of four alcids. *Auk* 102:293-297

14.8 Cumulative impacts – only other tidal developments are considered here. Cumulative Impacts must be considered in relation to ALL other projects, not just tidal projects.

14.10 Proposed monitoring – it is stated that if monitoring is not “beneficial” it will cease, but how the success of post-construction monitoring will be determined is not stated. In addition no post-construction monitoring methodology is presented here. It is therefore impossible to determine whether there is any likelihood of monitoring being sufficient to measure any change that could be attributed to the proposed development. We recommend that a post-construction monitoring methodology is established and clearly defined analytical methodology and targets for the post-construction monitoring are presented. This could most easily be determined using power analysis once a full baseline has been gathered.

Appendix 14.1 – Paragraph 22 & 23 – the field survey methodology was conducted in sea states of 5 and below which is contrary to the normally accepted methodology for surveying seabirds in sea states of 4 or less. No analysis has been presented on the effects of increasing sea state on the detectability of birds from vantage point watches. We recommend that either, this analysis is undertaken and its findings used to determine the effects on the results, or that those data collected when the sea state was greater than 4 are removed.

Appendix 14.1 – Paragraph 29 – while it is stated that a vessel survey was included in the methodology, no results are published in Appendix 14.1 and no analysis of the effects of this shipping on the numbers and distribution of birds is presented. Justification should be presented as to why these data were collected but no analysis presented in the ES.

Throughout (including Appendix 14.1) – means are quoted throughout with no measure of their variance quoted. This makes assessment of the mean value less useful. It would be valuable to include some measure of the variance (eg standard deviation or standard error of the mean). In this case, given the variability of sample sizes we recommend that all mean values are quoted with their appropriate standard error and sample size.

Throughout - there is mention of testing at Strangford Lough. This is not necessarily appropriate as there are many differences between the developments. Namely:

1 – different device

2 – Strangford Lough is a single device whereas Sound of Islay is an array

3 – they are very different locations with Sound of Islay having two entrances/exits

4 – the diversity of mobile species and numbers of animals is much greater in Sound of a Islay.

There is also repeated reference to SNH 2009. This was not work undertaken by SNH but simply a presentation given, by the developer’s representative, at a SNH Sharing Good Practice event.

Appendix 14.1 – Paragraph 25, 42, Table 4 & Figure 2 – it is stated here that there were a total of 7 vantage points: 4 “southern” vantage points, and 3 “Northern” vantage points. Table 4 also lists 7 VPs. However, the map in figure 2 shows a total of 6 Vantage points. The Applicant should clarify whether 6 or 7 VPs were used and amend the map accordingly.

Dear Fiona,

I have reviewed the documentation in relation to the Sound of Islay demonstration array. I have the following general and specific comments.

General

The SoI ES is generally well written and identifies the main sources of risk to diadromous fish. It would be useful if further referencing was provided to support some of the assertions and it should be noted that Environmental Statements are not typically useful sources of independent original information. It would be better to cite original papers or reports.

The ES has correctly identified that there are many unknowns in relation to migratory routes and potential impacts of offshore renewable devices. However, there is an assumption throughout the document that because there is no information on the use of SoI by diadromous fish, that it is not commonly used. This assumption then repeatedly affects the assessment of impacts, so that predictably the ES concludes that there will be no impacts.

Given uncertainty over the information on migratory routes, noise, and emf, the ES should be more tentative in its conclusions. It would also be useful if the ES identified more clearly where the major sources of uncertainty were, so the reader can more readily identify those conclusions which are reached with greater or lesser certainty.

In order to improve confidence in the conclusions, additional information would be required on the use of the study area by diadromous fish. Evidence suggests that salmon from almost all Scottish rivers can return to the west coast before travelling on to natal rivers. Evidence also suggests that salmon make use of tidal currents during migration to minimise energetic costs. Given these considerations it would seem unreasonable to assume that SoI is not used by migrating diadromous fish without additional information.

I should also note that the ES does not consider any impact to European eel populations.

Specific comments

12.11 It is unclear why CEFAS documents are cited in relation to the development.

12.12 As far as I am aware the CEFAS criteria have not been agreed for use in Scotland. It is uncertain what is meant by the final bullet.

12.13 Salmonids should also be considered for their recreational fishery value. European eel should be considered for conservation value.

12.15 There is a need to consider the differences in behaviour between salmon and sea trout. Sea trout generally remain in local vicinity so potential impacts on feeding areas and habitat use as well as on migration.

12.17 Not all species mentioned here are designated in Scotland.

12.18 states that there are no SACs in the site or in the vicinity of the site. However, it is possible that fish migrate through this site to SAC rivers. Research has shown that many fish, destined for Scotland's east coast SACs first arrive on the west coast and then migrate around the north of Scotland to the East coast.

12.38 there is equally no evidence to suggest that the area is not used.

12.39 The ES states that the distribution of salmon is dictated by the availability of "local" spawning rivers. This is not the case. Many adult fish return to the west coast of Scotland before migrating to their river of origin. Therefore the lack of local spawning does not mean that the area will not be important for migrating salmon.

12.42, are these suggested timings for returning adults or for migrating juvenile fish?

12.43 It is true that the information is sparse. However, there is further available published information on swimming depths and behaviour of juvenile and adult fish that may have assisted in preparation of the ES. The ES is correct in identifying that specific local information on migration is not available.

12.44 While salmon can use a wide range of depths, shallow use is more typical.

12.45 The key difference between salmon and sea trout is the local use of habitat by sea trout. Therefore it could be argued that they would be more susceptible to any impacts due to continued exposure.

12.52 Much of this section appears confused. Although pressures and populations do vary between catchments, there are also coherent trends in abundance e.g. Youngson *et al.*, (2002) <http://icesjms.oxfordjournals.org/cgi/reprint/59/4/836.pdf>, <http://www.marlab.ac.uk/Uploads/Documents/Summer.pdf>, <http://www.marlab.ac.uk/Uploads/Documents/FW02SpringSalmon.pdf>

12.53 I am unclear what this paragraph is attempting to say or why.

Section 12.13.4. The developer suggests that background noise will not affect fish as similar activities elsewhere have not been shown to have any effect. It should be noted that the evidence presented here on fish hearing, expected noise from deployment and likely impacts is sparse.

Section 12.6.2. The evidence for potential effects provided in this section is weak and contains few primary data sources. Paragraph 12.81 is the most informative paragraph in this section.

Section 12.5 (EMF) This section correctly identifies the paucity of available information on this subject in relation to diadromous fish. Again reference is made to a selection of ES reports, but very little primary information.

Section 12.6 (Barrier to movement). It is useful to note the limited number of devices, size of blade and depth of location. However, it should be noted that a barrier may be perceived even when a full physical barrier is not present.

Section 12.7 (Collision) The section concludes there is limited risk. This is firstly because of the limited area affected by the devices (accepted), but also because it is assumed that the area is not heavily used by diadromous fish. This latter assertion is unfounded at this stage.

Fig. 12.3 appears to be missing.

8 September 2010

[REDACTED]
Marine Development Officer
Regulation and Markets Scottish Power Renewables
Cathcart Business Park
Spean Street
Glasgow
G44 4BE

[REDACTED],
Sound of Islay Demonstration Tidal Array

Thank you for sending RYA Scotland a copy of the Environmental Statement for the above project. We agree with your conclusions about a lack of impact on recreational sailing.

We note that the document states that 'Admiralty Chart 2481 identifies anchorages at McDougall's Bay, Whitefarland Bay and Bunnahabhain Bay within the Sound (see Figure 20.1); however these are not recommended by the RYA in their routing system (Navigation Safety Risk Assessment, Appendix 19.1).' RYA does not recommend anchorages. We do recognise some anchorages as being of particular importance for reasons of safety in adverse conditions.

However, it is the responsibility of the skipper to choose an appropriate anchorage in the light of weather, tide, vessel, sea bottom, length of stay etc.

It may be possible to incidentally benefit recreational boating from coastal infrastructure, such as piers or slipways, constructed or improved as part of the development and I would encourage Scottish Power Renewables to be alert to such possibilities.

RYA Scotland will be happy to provide any further information that would be useful to you and to discuss how to minimise any inconvenience to vessels passing through the Sound during the construction phase.

We wish you well in this project.

Yours sincerely,

[REDACTED] on behalf of RYA Scotland



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Our ref: AMN/16/SA
Our Case ID: 201002909

30 August 2010

Dear Ms Thompson,

Electricity Act 1989
The Electricity Works (Environmental Impact Assessment) (Scotland)
Regulations 2000
Section 36 Application for a Demonstrator Tidal Array, Sound of Islay, Argyll

Thank you for your letter of 30 July 2010 and the accompanying Environmental Statement (ES) regarding the above proposed development. For information, this letter covers our comments on the ES for our role as consultees through the Scottish Ministers under the terms of the above Regulations.

We have undertaken an appraisal of the ES and our comments concentrate on our statutory historic environment interests. That is, scheduled monuments and their setting, category A listed buildings and their setting, gardens and designed landscapes included in the Inventory and designated wreck sites (Protection of Wrecks Act 1973).

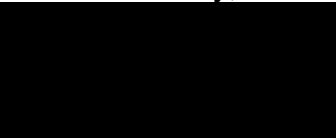
We understand that the proposals comprise 10 x 1 MW devices to be installed in four rows in deep water on an area of the seabed within the Sound of Islay, just south of Port Askaig. These will be linked by sea cable to Jura at Daimh-sgeir to connect to the grid via a substation. We note from the cultural heritage chapter that there will be no upstanding structural elements on Islay during the operational phase, and that the only upstanding elements on Jura will comprise a small substation. We understand from section 18.35 of the ES that of the scheduled monuments in the vicinity of the development, only Cill Challium Chille, chapel, Kiells (Index No. 2361) and Cill Sleabhan, chapel 1100m SSE of Kiells (Index No. 2371) will have theoretical visibility with the development. However, we are content to accept that given the distance involved (over 4 km), impacts on their setting are unlikely to be significant.

In summary, while we have some minor concerns with the methodology used in the ES, we are content to accept its conclusions that there will be no significant adverse impacts on historic environment features within our statutory remit. Consequently, we offer no objection to the proposals.

The West of Scotland Archaeological Service (WoSAS) will be able to advise the developer on the adequacy of the assessment of the likely impacts and mitigation proposed for unrecorded and unscheduled archaeology on land, and may wish to comment offshore. However, our Senior Inspector for Marine Archaeology would also be happy to advise on offshore matters if required. Please contact Philip Robertson on 0131 668 8843 or at: philip.robertson@scotland.gsi.gov.uk.

We hope you have found these comments useful. Please do not hesitate to contact me at the above details should you wish to discuss them.

Yours sincerely,



Nicola Hall
Senior Development Assessment Officer

19TH NOVEMBER 2010

Our Ref.: MA/RK

Your Ref.:

Contact: [REDACTED]

Direct Line: (01546) 604845

Marine Scotland
Marine Laboratory
375 Victoria Road
Aberdeen
AB11 9DB

FAO: Fiona Thompson

Dear Madam

**SECTION 36 - ELECTRICITY ACT 1989
DEMONSTRATION TIDAL ARRAY, SOUND OF ISLAY**

I refer to your consultation of 30th July 2010 in connection with the above. I apologise for only being in a position to reply at the close of the consultation period, but this has been as a result of awaiting a recent liaison meeting with Scottish Power at which the project at hand was discussed. This reply constitutes the consultation response of the Council as Planning Authority and incorporates comments received from the Council's Marine and Coastal Officer. A separate response has recently been sent to you independently by the Council's Biodiversity Officer.

This project was the subject of scoping consultation and the subject of response from the Council in August 2008. The Council is glad to see that the prospective developer appears to have addressed the various issues raised at that time in the production of their Environmental Statement. The submitted Environmental Statement appears to be a comprehensive investigation of the environmental impacts of the proposed development. The Council agrees with the methodologies employed and generally with the conclusions reached about the magnitudes of the individual impacts and accepts that the mitigation proposed is likely to be appropriate, considering this development is the first of its kind. The testing of a 1MW demonstration device at EMEC should further inform the conclusions reached in the Environmental Statement and assessment of impacts prior to the development works commencing.

This development is to be welcomed generally in that it will allow tidal array development in a relatively sheltered environment, providing learning that will assist in developing effective procedures for installation of the devices in more energetic marine environments.

There are a number of comments relative to individual matters which are listed by chapter below:

Chapter 8: Benthic Ecology – Risk of pollution incident during installation

The assessment in paragraph 8.63 of 'Impact 8.3: Risk of pollution incident during installation' appears questionable. Whilst the proposed controls will reduce the risk of a pollution incident, the sensitivity of the receptor is not reduced and therefore the overall effect of a pollution incident on benthic ecology, if an event occurred, is not likely to be of negligible significance. However, the overall rating would still probably be low and therefore the Council concludes that there should be no requirement for additional mitigation.

Chapter 9 – Marine Mammals

The assessment of effects on marine mammals is a very difficult area, so the use of SMRU, SAMS and HWDT to undertake data collection and analysis is very much commended.

The conclusion at para 9.147 is that marine mammals will be deterred from the location of the turbines by noise. However, previous sections have stated that the noise of the turbines is felt to be insignificant compared to background noise. Therefore, it is not clear that marine mammals will necessarily be able to hear the devices. Although the section refers to 'relatively slow movement', the blade tip speed at 12m/s (or 26mph) is actually quite fast. Therefore, the Council considers that there remains an element of uncertainty around the conclusions in respect of marine mammal disturbance and collision risk. Given that this is the first proposed tidal array development it seems acceptable to allow the development to go ahead on the basis of an 'Adaptive management and environmental monitoring strategy' in order to be able to further inform areas of assessment where there is uncertainty. This monitoring will help target any subsequent mitigation should it be required, and as such, the proposed monitoring strategy outlined in Section 9.6 is welcomed and is considered to be appropriate in the circumstances. The final strategy should be agreed by the relevant regulatory bodies. The monitoring of impacts on collision and changes in behaviour of marine mammals for this proposed development will be invaluable for future developments around Scotland, in particular, the Pentland Firth.

Chapter 10 – Onshore Noise

Whilst there are no significant adverse consequences identified with the operation of the development, the confined nature of Port Askaig and previous experience with large scale on-shore and marine works in the locality is such that there is potential for noise and disturbance during the construction phase, particularly given the prevailing low ambient noise levels, other than during ferry operations. It is therefore recommended that a Construction Management Statement be required by condition, including details of working methods and operating hours, which should be the subject of consultation with the Council's environmental health officers prior to approval, in order to identify opportunities to avoid or mitigate potential noise and disturbance to residents.

Chapter 11 – Marine Fish and Shellfish Resources

No mitigation is identified in relation to Impact 11.15 (Collision Risk – Marine Fish and Shellfish). As it is known that certain colours are more visible than others to fish (and perhaps marine mammals) it could be worth controlling the colour of the turbines in order to make them as visible to fish and marine mammals as possible.

Chapter 13 – Elasmobranchs

Impact 13.6 (Collision) – Proposed mitigation to use vessel and/or shore based visual observers during installation works will be very important. Suggested mitigation to undertake a post-installation monitoring programme in order to determine the nature of those impacts is welcome. As suggested in the Environmental Statement, this could be combined with data collection for marine mammal monitoring. The possible mitigation measure of having impact sensors on each device is supported.

Chapter 15 – Commercial Fishing

The proposed mitigation to undertake installation works as far as possible during the summer months, when commercial fishing activity in the Sound of Islay is lower, is supported. Suggested consultation with the local fishing community is to be welcomed, which it is hoped will be continued throughout the installation and operation of the development, and used as an example for other marine renewable developments.

Chapter 19 – Traffic and Transport

Support the view detailed in the 'Navigational Safety Risk Assessment' that marking the development site with lighted navigation buoys is not likely to improve safety, and may in fact make it less safe. There is however, no mention of what Northern Lighthouse Board's attitude is to this. If lit navigation buoys are indeed needed, then the landscape assessment will need to be reconsidered in light of this.

Please note that this response is limited to matters associated with the Council's planning responsibilities. The harbour at Port Askaig and the ferry slip at Feolin are both operated by the Council, as is the Jura ferry, and the developer should be made aware that use of these facilities and consideration of conflict with ferry services should be the subject of direct discussion with the Council's Marine and Airports Manager, Marin Gorringer. A 'no objection' position in respect of the application and the associated Environmental Statement should not be construed as any indication of the absence of operational issues, which may require to be addressed separately. Additionally, CalMac as operators of the mainland ferry should be consulted in respect of operational issues likely to affect them during construction, operation and decommissioning of the development.

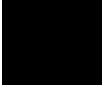
Chapter 20 – Socio-economics, Tourism and Recreation

The agreement to supply electricity to Diageo for three of their facilities on Islay is welcomed.

Para 20.74 states that divers will not be able to access the deep dive at Port Askaig Deeps during construction and operation for health and safety reasons (Appendix 19.1) Mitigation states that the array will be charted as a 'no fishing' and 'no diving' area and consultation will continue with relevant diving organisations. This will be important and should include BSAC and SSAC as a minimum and other local dive groups that are identified by these associations. There is no indication of views from the recreational diving sector on the usage of this dive site and their level of concern at not being able to use it, should the development go ahead. The listing of this dive site in revisions of existing dive guides and/or on websites will need to be removed.

I hope that the foregoing is of assistance to you in the determination of the application. I trust that you will provide the Council with a copy of the decision in respect of this application in due course.

Yours faithfully



Team Leader – Major Applications

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26TH AUGUST 2008

Our Ref. : MAKI/DC/RK/11
Your Ref. :

Contact : [REDACTED]
Direct Line : (01546) 604080

Scottish Government
Enterprise, Energy and Tourism Directorate
Meridian Court
5 Cadogan Street
Glasgow
G2 6AT

FAO: [REDACTED]

Dear Sir

**ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND
REGULATIONS 2000
REQUEST FOR SCOPING OPINION UNDER REGULATION 7
PROPOSED TIDAL STREAM GENERATION DEVICES, SOUND OF ISLAY**

I refer to your consultation letter of 8th August 2008 in respect of the above proposal. I have now had an opportunity to consult with my colleagues in the Council's Marine Unit and I am responding on behalf of them and the Council as Planning Authority.

Designations: The Sound of Islay does not lie within any nature conservation or historic environment or landscape designation. It is, however, overlooked by the Isle of Jura National Scenic Area, and there are a number of listed buildings on the Islay coast at Dunlossit, Port Askaig and Bunnahabhan as well as at Feolin on Jura. The landscape/seascape of the area is valued more overall for its inaccessibility, remoteness and its scenic qualities than it is for its individual qualities. However, I am aware that previous redevelopment operations at Port Askaig pier identified the particular importance of the presence of otter holts, and associated feeding and resting areas in the locality, and the identification of likely effects upon this protected species along with mitigation measures will be of high significance in this case. I assume that Scottish Natural Heritage will comment in detail in this regard. In addition, advice should be sought from SNH as to whether the proposal is likely to have significant effects on the South East Islay Skerries European Special Area of Conservation, and therefore whether an 'appropriate assessment' would be required. If this is required then the EIA needs to gather the required information in order to inform this assessment.

Land based development: It is appreciated that the main elements of the installation will be located on the sea bed, although a control building, cable connection and associated access works will be sited on land (apparently in the vicinity of Port Askaig). Additionally, it is anticipated that a construction base/compound will be required on a temporary basis. The design and siting of these elements should be considered in the light of their impact upon the setting of listed buildings and in relation to the landscape qualities of the area, with site selection and assessment being made in the light of views available from the roads to Port Askaig and Bunnahabhan (as appropriate), and from the approach to Port Askaig harbour by sea. There is an expectation that the control building should either be of vernacular appearance or alternatively a quality contemporary design. In either case, high quality building materials should be required. Given the relative limited scale of the land based works, it is expected that their assessment will be of moderate significance. Likewise, given sensitive siting, the on shore elements of the proposal are unlikely to have significant consequences for the recreation/tourism considerations.

Marine development: This is an experimental form of development requiring careful assessment in view of its novel characteristics. The likely consequences of reduced tidal flow velocities as a consequence of the operation of the installed equipment should be identified along with any expected changes to hydrodynamics and coastal processes, and likely consequences for benthic ecology. The extent of the potential collision risk posed to marine species should also be evaluated, along with any consequences presented to navigation/fishing interests. The footprint of the device and the cable route, including any potential Safety Zones should be considered in relation to competition for space with other activities such as fishing and aquaculture. Paragraph 4.61 states that there is no aquaculture production in the Sound of Islay. However, Crown Estate data (2007) held by the Council identifies two aquaculture finfish lease areas under the same development consent adjacent to the coast of Jura, opposite Port Askaig. The Crown Estate should be contacted to establish the status and owners of these sites.

The scoping report states that the tidal scheme will be located at a depth below the average swimming depth for any recreational scuba diver. If the maximum depth of the Sound is 42m and the maximum 'height to blade tip above seabed' of the tidal device is 30-39m, then this could give rise to conflicts where recreational diving occurs to 25 metres depth. The EIA methodology for marine mammals should also include consideration of possible routes and movements of cetaceans in addition to seals.

Given the innovatory nature of the development, consequences for marine life and shipping/fishing/recreation would appear to be of high significance, requiring detailed assessment.

Construction effects: The Environmental Statement should address construction and decommissioning activities, identifying likely effects upon marine and terrestrial ecology, mammals, marine fauna and birds. Potential effects upon water quality and coastal processes should be identified along with measures to control pollution and minimise waste. Regard should be paid to the consequences of turbidity and sedimentation arising from seabed construction activities. Construction noise should be identified along with likely consequences for marine life and human receptors. If piling is required, consideration should be given to the use of a 'soft-start' procedure to allow marine mammals to move away from the area as the noise levels are slowly increased. A construction method statement should be produced for

approval which draws upon the environmental considerations identified and proposes appropriate avoidance and mitigation measures.

I anticipate that construction impacts will be of significance in the preparation of the Environmental Statement. I presume that the Scottish Environment Protection Agency will be providing detailed comments in this regard. Construction traffic and access routes should also be considered, although I would not anticipate these to be of major significance in this case, given the ability to deliver components by sea.

Consideration of alternatives: The Environmental Statement should address site selection in the context of available alternatives and also with regard to the cumulative impact of the development with other relevant projects. In addition to the consideration of alternative locations, alternative methods should also be considered. The scoping report states that the devices will be seabed mounted with gravity based foundations and ballast weights and that if the seabed conditions show that this is not appropriate then other alternatives will be considered. The EIA should consider these alternative methods of attachment.

Potential Effects: These should be categorised into permanent effects (such as loss of habitats or changes in coastal processes) or temporary effects (such as disturbance and pollution risk), and the anticipated magnitude of the effects should be identified along with any proposed mitigation measures.

Consultees: In addition to the list of proposed consultees in Appendix A, the following stakeholders should be considered as consultees:

Commercial fisheries – Clyde Fishermen’s Association (CFA), Mallaig & North West Fishermen’s Association (M&NWFA), Mull Aquaculture and Fisheries Association (MAFA)

Recreation – West Highland Anchorages & Moorings Association; Argyll Charter Boat Association. There are three dives sites and a chartered anchorage within the Sound of Islay. The location of these interests can be found in the report - Benfield, S. and McConnell, S. (2007) *‘Marine and Coastal Visitor Management, Public Engagement and Interpretation in Argyll and the Islands: the way forward’*. Marine and Coastal Development Unit, Argyll & Bute Council.

In relation to the assessment of potential impacts on Maritime Navigation, it may be useful to contact Operational Services, Argyll and Bute Council (Martin Gorringer) in relation to the potential use of Argyll and Bute Council piers and consideration of the Council’s Oil Spill Contingency Plan.

Conclusion: Having considered the Scoping Report prepared by the applicants, I am satisfied that this identifies the key issues relevant to this project and proposes appropriate methodologies to form the basis of the assessment process. There are no additional issues which I would wish to see addressed. Table 8 in the document highlights potentially significant effects and those requiring further work to establish their likely significance. This appears to be a realistic appraisal of the magnitude of likely effects and forms an appropriate basis for the production of the Environmental Statement.

I hope that the forgoing is helpful and look forward to receiving a consultation in respect of the application for consent in due course.

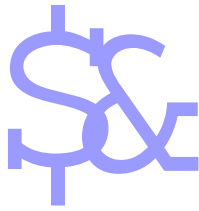
Yours faithfully



Area Team Leader - Development Management
Mid Argyll, Kintyre and the Islands

CAPTAIN PHILLIP DAY
DIRECTOR OF MARINE OPERATIONS

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Your Ref: Scottish Power Renewables - Islay S36 EIA
Our Ref: AJ/OPS/CPA/OREI/10/WT- Sound of Islay

██████████
Scottish Power Renewables
Cathcart House
Spean Street
Glasgow
G44 4BE

05 August 2010

Dear Sir

S36 EIA RESPONSE REGARDING TIDAL DEVICES, SOUND OF ISLAY

Thank you for your correspondence dated 27 July 2010 regarding the tidal energy devices intended for installation by **Scottish Power Renewables UK Ltd** in the Sound of Islay. We acknowledge the receipt of the Environmental Impact Assessment Statement and the Technical Appendices relating to the project.

We would advise that the following should be considered as our initial response and that any formal recommendations for any lighting and marking will be given through the Coast Protection Act 1949 – Section 34 process and will be based on IALA Recommendation O-139.

We note a number of inconsistencies within the document and seek clarification on the following points;

- Vol 1 – Ch5 section 5.28 “a minimum of 16.5 metres is anticipated”
- Vol 1 – Ch19 section 19.89 “it is anticipated that the turbines will have a 14.5 metre clearance”
- Vol 1 – Ch5 section 5.20 “once proven, this design will be used for the 10 turbine array in the Sound of Islay”
- Vol 2 – Appendix 2.1 p4 Item 3 “The tidal site will consist of up to 20 submerged demonstration tidal stream generating devices”
- Vol 2 – Appendix 2.1 p5 Item 4 “Marine Guidance Note 275 (M). This is identified at page 19 within Appendix 2.1 as having been seperceded by MGN 371.

The NRA includes sections relating to Navigation Warnings both local and national. The warnings shall be promulgated prior to the commencement of any installation, operation, maintenance and decommissioning periods.

Within the NRA, we note that it has been acknowledged that any requirement to establish safety zones, or any deployment of mooring or navigation buoys would further reduce the area of save navigable water around the works and would therefore not form part of the application. We will therefore request of the licensing authority that the use of D.P. capable vessels and a safety or guard vessel be a condition of the consent to install these devices. Should however the developers require to use deployed anchor patterns or mooring buoys during the installation, we would require that the Navigational Risk Assessment is re-submitted and consent varied prior to this being carried out.

We note that all components are in negative buoyancy and should not, under a failed condition, have the ability to float free or be mobile in a sub-surface state but sink to the sea bed. Any components becoming detached and detected by the SCADA monitoring system as having failed shall be communicated to the MCA to ensure the mariner is informed immediately.





05 August 2010

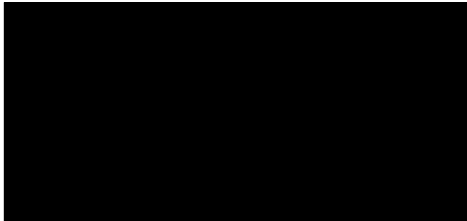
We would anticipate that a Method Statement would form part of the CPA Application, and note that any devices deployed either as part of your technology assessment, permanent installation and eventual de-commissioning will require careful planning to minimise the hazards posed.

The requirement to install cables to shore would need separate comment contained within the Navigational Risk Assessment. We would ask that the Hydrographic Office be informed of the selected route and landfall location in order that the Admiralty Chart is updated to give information of the installation. It would be expected that the cable route shall be marked at the landfall site by a diamond shaped yellow board having the words "Power Cables" in black across the horizontal axis. The board(s) shall be marked by night with a yellow light flashing once every five seconds (Fl Y 5s) and having a range of 2 nautical miles.

We would agree that the deployment of any permanent buoys and the associated moorings to mark the area of turbine positioning would in fact reduce the area of safe navigation through the Sound of Islay.

The Statutory Sanction of the Commissioners of Northern Lighthouses must be sought to exhibit and subsequently remove any navigational lighting required within any conditions of the consent.

We would reserve the right to amend this initial statement in the light of further discussion or the provision of additional information.



Cc The Scottish Government, Marine Scotland.

Comments on EIA for SPR Sound of Islay Tidal Array

Benthic Ecology

The developer has identified all the key potential impacts that I would be concerned with, at both the site and along the cable route, and have presented adequate evidence to allow an assessment of these impacts. The surveys conducted seem to have adequately covered the development area with both video and still photography. I agree with the developers conclusions that the impacts will be negligible and short lived and that no mitigation measures would be required. However an area of Maerl was identified and measures should be taken to ensure that this is not impacted by the development as maerl is particularly sensitive to sediment deposition.

Intertidal Ecology

The developers have conducted adequate surveys in the proposed routes for the cables and landfall. The surveys identified that there is a significant population of otters in the area and some areas that are essential to them (e.g. freshwater access, holts and shelters) but no other species or habitats of conservation concern. The impacts identified included some temporary localised smothering, which should not cause long term effects and possible disturbance to the otter population. I agree with the developers recommendations for the route and landfall of the cable through areas that are already developed or contain no high quality habitats or species. This included avoiding areas of importance to the otter population. However there is no assessment of the distance away from the cable construction route that any disturbance to the otters is likely as any disturbance will not be restricted to just the cable route.

Overall this Environmental Statement seems to have covered all the key impacts and provided adequate evidence to enable assessments to be made.

Clare Greathead 7/9/10

Unknown

From: [REDACTED]@jrc.co.uk
Sent: 04 August 2010 16:56
To: Environmental Protection
Subject: Sound of Islay - Demonstration Tidal Array

Follow Up Flag: Follow up
Flag Status: Completed

Dear Sir or Madam,

Sound of Islay - Demonstration Tidal Array

JRC analyses proposals for wind farms on behalf of the UK Fuel & Power Industry. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.

In the case of this proposed tidal energy development, JRC does not therefore have any concerns.

Regards

[REDACTED]
Wind Farm Team

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LONDON SW1P 2AF
United Kingdom

[REDACTED]
[REDACTED]@jrc.co.uk>

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