

Contents

- 1. Introduction**
- 2. Aim of this Scoping Opinion**
- 3. Description of your development**
- 4. Land Use Planning**
- 5. Natural Heritage**
- 6. General Issues**
 - Economic Benefit**
- 7. Contents of the Environmental Statement (ES)**
 - Format**
 - Non Technical Summary**
 - Site selection and alternatives**
 - Description of the Development**
 - Decommissioning**
 - Grid Connection Details**
- 8. Baseline Assessment and Mitigation**
 - Design, Landscape and the Built Environment**
 - Construction**
 - Archaeology and Cultural Heritage**
 - Navigation**
- 9. Ecology, Biodiversity and Nature Conservation**
 - Designated sites**
 - Habitats**
 - Species**
 - Birds**
 - Mammals**
 - Reptiles and amphibians**
 - Fish**
 - Invertebrates**
 - Sub-Tidal Benthic Ecology**
- 10. Water Environment**
 - Hydrology and Hydrogeology**
- 11. Other Material Issues**

Waste



Noise
Traffic Management

12. General ES Issues

Consultation
Gaelic Language
OS Mapping Records
Difficulties in Compiling Additional Information
Application and Environmental Statement
Consent Timescale and Application Quality
Judicial Review

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

**SCOPING OPINION FOR THE PROPOSED
SECTION 36 APPLICATION FOR THE ISLAY TIDAL ENERGY PROJECT,
ISLAY**

1. Introduction

I refer to your letter of requesting a scoping opinion under the Electricity Works (Environmental Impact Assessment)(Scotland)(EIA) Regulations 2000 enclosing a scoping report dated January 2009 (Reference Number: PEN01).

Any proposal to construct or operate an offshore power generation scheme with a capacity in **excess of 1 megawatt** requires Scottish Ministers' consent under section 36 of the Electricity Act 1989.

Schedule 9 of the Act places on the developer a duty to "have regard to the desirability of preserving the natural beauty of the countryside, of conserving flora, fauna and geological and physiological features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest". In addition, the developer is required to give consideration to Scottish Planning Policy 6 on Renewable Energy, other relevant Policy and National Policy Planning Guidance, Planning Advice Notes, the relevant planning authority's Development Plans and any relevant supplementary guidance.

Under the Electricity Works (Environmental Impact Assessment)(Scotland)(EIA) Regulations 2000, Scottish Ministers are required to consider whether any proposal for an offshore device is likely to have a significant effect on the environment. Scottish Ministers have considered your request for an opinion on the proposed content of the ES in accordance with regulations and in formulating this opinion, Scottish Ministers have received consultation responses from SNH, SEPA, Argyll and Bute Council, RSPB Scotland, NATS, The Crown Estate, Defence Estates, BT, Association of Salmon Fishery Boards, CAA (Safety Regs), Chamber of Shipping, Maritime and Coastguard Agency, Royal Yachting Association, Scottish Canoe Association, Fisheries Committee, Highland and Island Airports, Northern Lighthouse Board, Marine Scotland, and Historic Scotland. If we subsequently receive responses, we will forward them directly to you.

Please note that the EIA process is vital in generating an understanding of the biological and physical processes that operate in the area and may be impacted by the proposed tidal array. We would however state that references made within the scoping document with regard to the significance of impacts should not prejudice the outcome of the EIA process.

It is important that any development of renewable energy sources should be accompanied by a robust assessment of its environmental impacts. The assessment should also consider how any negative environmental impacts

could be avoided or minimised, through the use of mitigating technologies or regulatory safeguards, so that the quality and diversity of Scotland's wildlife and natural features are maintained and enhanced. Scottish Ministers welcome the commitment given in the report that the EIA process will identify mitigation measures in order to avoid, minimise or reduce any adverse impacts. We would suggest that the range of options considered should be informed by the EIA process in order that these objectives can be achieved. Consultation with the relevant nature conservation agencies is essential and it is advised that this is undertaken as appropriate.

2. Aim of this Scoping Opinion

Scottish Ministers are obliged under the EIA regulations to respond to requests from developers for a scoping opinion on outline design proposals.

The purpose of this document is to provide advice and guidance to developers which has been collated from expert consultees whom the Scottish Government has consulted. It should provide clear advice from consultees and enable developers to address the issues they have identified and address these in the EIA process and the Environmental Statement associated with the application for section 36 consent.

3. Description of your development

From your submitted information it is understood, the proposed development is for a proposed Tidal Farm with the approximate electrical output of 400 Megawatts (MW) approximately 8km west of the south-west tip of the island of Islay. This will be done in three stages, starting with 7.5 MW at phase 1, and 50 MW at phase 2.

4. Land Use Planning

Scottish Planning Policy SPP 6, Renewable Energy sets out the national planning policies for renewable energy developments. It outlines the process of encouraging, approving and implementing renewable energy proposals to ensure the delivery of renewable energy targets. The SPP identifies the issues that Scottish Ministers will take into account when considering applications for off-shore electricity generation schemes under Section 36 of the Electricity Act 1989 .

The whole series of SPPs (and those National Planning Policy Guidelines (NPPGs) which have yet to be replaced) should be taken as an integral policy suite and considered along with the supporting advice and information in Planning Advice Notes (PANs) and Circulars. Planning documents that a developer should particularly consider include:

- Planning Authority Supplementary Planning Guidance
- National Planning Framework for Scotland
- SPP1: The Planning System
- SPP6. Renewable Energy
- SPP7: Planning and Flooding

- SPP15: Planning for Rural Development (2005)
- SPP17: Planning for Transport (2005)
- SPP 21: Green Belts
- NPPG5: Archaeology and Planning
- NPPG14: Natural Heritage
- SPP23: Planning and Historic Environment
- PAN42: Archaeology–Planning Process and Scheduled Monument Procedures
- PAN45: 2002 Renewable Energy Technologies
- PAN 50: Controlling the Environmental Effects of Surface Mineral Workings
- PAN 51: Planning, Environmental Protection and Regulation
- PAN56: Planning and Noise
- PAN58: Environmental Impact Assessment
- PAN60: Planning for Natural Heritage
- PAN68: Design Statements
- PAN69: Planning and Building Standards Advice on Flooding
- PAN 75: Planning for Transport
- PAN 79: Water and Drainage
- Marine Guidance Note 275 (M)
- Argyll and Bute Local Plan

5. Natural Heritage

Scottish Natural Heritage (SNH) has produced a service level statement (SLS) for renewable energy consultation. This statement provides information regarding the level of input that can be expected from SNH at various stages of the EIA process. Annex A of the SLS details a list of references, which should be fully considered as part of the EIA process. A copy of the SLS and SNH's "Marine Renewable Energy and the Natural Heritage: An overview and policy statement" can be found on the renewable energy section of their website – www.snh.org.uk

6. General Issues

Economic Benefit

The concept of economic benefit as a material consideration is explicitly confirmed in SPP 6. This fits with the priority of the Scottish Government to grow the Scottish economy and, more particularly, with our published policy statement "Securing a Renewable Future: Scotland's Renewable Energy", and the subsequent reports from the Forum for Renewables Development Scotland (FREDS), all of which highlight the manufacturing potential of the renewables sector. The application should include relevant economic information connected with the project, including the potential number of jobs, and economic activity associated with the procurement, construction operation and decommissioning of the development.

7. Contents of the Environmental Statement (ES)

Format

Developers should be aware that the ES should also be submitted in a user-friendly PDF format which can be placed on the Scottish Government website. A description of the methodology used in assessing all impacts should be included.

It is considered good practice to set out within the ES the qualifications and experience of all those involved in collating, assessing or presenting technical information.

Non Technical Summary.

This should be written in simple non-technical terms to describe the various options for the proposed development and the mitigation measures against the potential adverse impacts which could result. Within an ES it is important that all mitigating measures should be:

- clearly stated;
- fully described with accuracy;
- assessed for their environmental effects;
- assessed for their effectiveness;
- their implementation should be fully described;
- how commitments will be monitored; and
- if necessary, how they relate to any consents or conditions.

Given that the layout and design are still developing and evolving, the exact nature of the work that is needed to inform the EIA may vary depending on the design choices. The EIA must address this uncertainty so that there is a clear explanation of the potential impact of each of the different scenarios. It should be noted that any subsequent components/scenarios procured after the ES is submitted would be subject to further environmental assessment and public consultations period if deemed to be significant.

Marine Scotland

Marine Scotland advise that the scoping report has too many unknown factors that would impact on the Marine Environment, and believe that the Environmental Statement would be too daunting a task to complete. **Therefore, Marine Scotland advise that this project is halted until the industry is advanced enough to know the impacts of these devices.**

The Crown Estate

The Crown Estate comment that, whilst the principles of the proposed Islay development are sound, the application of consent to a commercial development such as this cannot occur outside of a commercial tender process, such as that currently underway for the Pentland Firth. This approach is required so as to ensure that all interested parties are given the option to apply. Consideration can be given to the deployment of testing devices when the aggregate capacity of any installations does not exceed 10MW. **The Crown Estate will not be granting a seabed lease for the development proposed as it currently stands.**

Site selection and alternatives

Argyll and Bute Council

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 Portnahaven). Additionally, it is anticipated that a construction base/compound will be required, the anticipated location for such facilities being in the vicinity of Portnahaven harbour. The design and siting of these elements should be considered in the light of their impact upon the qualifying features of the Rinns of Islay SSSI and SPA designations, the character and appearance of the Portnahaven/Port Wemyss Conservation Area, 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 within the Rinns of Islay (as appropriate), and from the route around the Rinns of Islay 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 in respect of the onshore substation and control building, it is expected that their assessment will be of moderate significance. Likewise, given sensitive siting, these on shore elements of the proposal are unlikely to have significant consequences for the recreation/tourism considerations.

The likely requirement for, and potential scale and feasibility of, locating a permanent maintenance facility on Islay is less clear from the information provided. In general, the Council welcomes and encourages these new opportunities for the creation of additional employment and economic benefit on the Island. However, despite being an island, a combination of topography, landscape, natural and built heritage designations significantly reduce the locational opportunities for shore side development which were of substantial scale.

In addition, given the level of offshore activity off the West Coast of Scotland, it would perhaps be appropriate to have some consideration as to whether a more strategic approach is warranted to the location and provision of a major facility which would serve the needs of all potential developments in the area.

The Council would welcome the inclusion within the ES of further clarification in respect of the likely scale and nature of shore based maintenance facilities to serve the various phases of the proposed development and, the likelihood of these being based on Islay.

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. Whilst surface penetrating devices remain within the considered 'design envelope' consideration should be given to the landscape/seascape visual impact of the proposal.

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.

In view of the above, the Council accepts the rationale behind the developer adopting a technology neutral approach to the development design in respect of the initial, experimental phase of the proposed development; it would however expect the 'design envelope' for future phases to be tighter with the ES updated to reflect the operational experience and data accumulated from the earlier phases of the project and indeed that of other marine tidal developments.

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.

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.

SNH

The applicant also indicates that the maintenance facility for this proposed tidal array will be located in the vicinity of Portnahaven harbour. This will be subject to a separate application made by the applicant (see section 2.2.5, page 13, of the scoping report). SNH will make comment on the proposed maintenance facility proposals when these are submitted to us for consultation. It may reduce the overall impact on terrestrial habitats if the maintenance facility and control building/sub-station are located in the same place, if this is possible.

Royal Yachting Association

This site appears well suited to purpose. It is not heavily frequented by shipping or recreational craft. However a more precise location than 8km SW of Islay would enable a more objective comment. It appears to be in quite deep water and is not in a major shipping or small craft route.

Maritime and Coastguard Agency

Page 8 As a 400MW installed capacity this would be considered as a High Risk or Large Scale Development within the context of the DECC/DfT/MCA Guidelines on the Assessment of the Impact of Offshore Wind Farms publication.

Page 47 No mention is made of the West Islay, Argyll and Bute Marine Environmentally High Risk Areas (MEHRA)

Page 102 This section requires enhancement to reflect the increasing importance of strategic pipelines and cables following the "Young Lady" incident.

Page 110 The DECC guidance should be properly referenced as the DECC/DfT/MCA Guidelines on the Assessment of the Impact of Offshore Wind Farms publication which should be followed, as appropriate to the project. MGN 275 had now been replaced by MGNs 371 and 372 which should also be followed as appropriate to the project.

Description of the Development

SEPA

Plans should be provided showing the site boundary and the locations of the devices, cable routes and onshore supporting infrastructure.

Details of the device design and footprint on the seabed should also be provided.

Royal Yachting Association

Tidal developments of this type must be a welcome development provided they do not create a hazard to navigation

Decommissioning

Royal Yachting Association

Obstructions on the sea bed will have to be removed on decommissioning

Grid Connection Details

SNH

The applicant indicates that the onshore grid connection for this proposed tidal array (as distinct from the offshore-onshore cable connection) and the onshore sub station and control building would be located in the vicinity of Portnahaven (see section 2.2.4.4, page 13 of their scoping report). This may well lie within the Rinns of Islay SSSI/SPA and the EIA should consider the impacts of the proposed development on the notified interests of the sites outlined above

8. Baseline Assessment and Mitigation

Design, Landscape and the Built Environment

SNH

The Rinns of Islay is classified in the Landscape Character Assessment of Argyll & the Firth of Clyde (SNH Commissioned report 1996) as rocky moorland.

SNH is pleased that it is proposed that the EIA process will follow recognised guidance for landscape/seascape and visual assessment. Key elements for consideration in landscape and visual assessment are the ancillary onshore infrastructure, marker buoys/lighting and the possibility of a single surface breaking seabed mounted foundation to house hub connections, although SNH feels strongly that submerged hubs would be a preferable option in terms of visual impact. In terms of any onshore development, the Landscape Character Assessment recommends that new buildings should have a simple traditional style, built either of local gneiss or with a white-painted harling.

SNH's detailed advice on Landscape/Seascape and Visual Impact Assessment for the proposal is given in Section 7 of Appendix C of their consultation response, along with relevant guidance that is currently available

Construction

SEPA

Marine Scotland is the lead marine management organisation in Scotland. It was established on April 1 2009 as a Directorate of the Scottish Government (SG) to integrate core marine functions involving scientific research, compliance monitoring, policy and management of Scotland's seas (<http://www.scotland.gov.uk/About/Directorates/Wealthier-and-Fairer/marine-scotland>).

We note that there will be works both offshore and onshore. The ES should provide a description of the construction activities i.e. installation of foundations, moorings and other subsea structures, cable laying and cable protection. The ES should describe mitigation measures to avoid or minimise impacts to a level where they are not significant e.g. reduce seabed scour from moorings. Options and methodologies for cable installation should be described in the ES.

The proposal for this tidal array is in an area for which SEPA has little information of its own concerning the marine environment. Background information which will help inform the ES process is available from

- BERR (formerly the DTI) (http://www.offshore-sea.org.uk/consultations/SEA_7/index.php) (areas identified as SEA 7 is relevant to this development)
- Scottish Government (www.seaenergyscotland.co.uk/)
- EMEC was established to help the evolution of marine energy devices from the prototype stage into the commercial market place. To facilitate this EMEC has produced a set of EIA Guidelines for developers to follow. (<http://www.emec.org.uk/index.asp>)
- Scottish Marine Renewable Energy SEA (<http://www.seaenergyscotland.co.uk/>).

Useful guidance can be found in CIRIA C584 entitled "Coastal and marine environmental site guide". Reference can be made to the appropriate checklists and good practice advice generally in this document.

Argyll and Bute Council

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

Chamber of Shipping

Construction Phase - Information about the construction and related activities including mitigation measures is sought with the EIA at a later date. We would like to highlight that the provisions should include detailed arrangements to ensure minimum disruption for the existing vessels using Port Ellen. The construction and support activities will also need to be properly coordinated

Royal Yachting Association

During construction NLB will no doubt specify how the work should be marked. Furthermore appropriate Notices to mariners will need to be issued as required

SNH

In the absence of a clear location for each phase of deployment SNH recommend that monitoring for the initial phase (7.5MW deployment) should cover the entire deployment area (for full 400MW phase) plus buffer area of between 500m-1KM in order that DP Energy can locate the first phase within the development search area. However if DP Energy can be more specific in their location of each phase, and timescales involved, then we recommend that each phase of installation requires 2 years of baseline survey. Installation periods for the initial 7.5 MW deployment and subsequent second phase 50MW deployment should not be included in the baseline survey work for the third phase (400MW) deployment as these installation periods are likely to cause disturbance/displacement of monitored species and could skew background data.

The installation periods should however be monitored. Mitigation measures to prevent or minimise damage, displacement of disturbance of habitats and species should be included within the ES and assessed as to their suitability, bearing in mind that certain mitigation methods may impact on other species or habitats.

We recommend that DP Energy agree an appropriate monitoring programme with SNH which must consider specific issues/interactions that may be a concern of the designated sites listed above in Section 2, in order that the data will be relevant to any Appropriate Assessment that may be required under Natura regulations.

Archaeology and Cultural Heritage

The ES should address the predicted impacts on the historic environment and describe the mitigation proposed to avoid or reduce impacts to a level where they are not significant. Historic environment issues should be taken into consideration from the start of the site selection process and as part of the alternatives considered.

National policy for the historic environment is set out in:

- Scottish Planning Policy (SPP) 23 *Planning and the Historic Environment* at: <http://www.scotland.gov.uk/Publications/2008/10/28135841/0>
- The Scottish Historic Environment Policy (SHEP) sets out Scottish Ministers strategic policies for the historic environment and can be found at: <http://www.historic-scotland.gov.uk/index/heritage/policy/shep.htm>
- Technical Guidance Note* text available at: <http://www.historic-scotland.gov.uk/index/heritage/policy/memorandumofguidance.htm>

* The *Memorandum of Guidance on Listed Buildings and Conservation Areas* (the Memorandum) has now been withdrawn. New guidance notes will ultimately replace the Memorandum, and will be published for consultation with the aim of replacing the Technical Guidance Note by 2009/10.

The historic environment is defined in section 1.2 of the Scottish Historic Environment Policy (SHEP) as comprising ancient monuments, archaeological sites and landscapes, historic buildings, townscapes, parks, gardens and designed landscapes and our marine heritage, for example in the form of historic shipwrecks or underwater landscapes. Amongst other things, SPP 23 stresses that scheduled monuments should be preserved *in situ* and within an appropriate setting and confirms that developments must be managed carefully to preserve listed buildings and their settings to retain and enhance any features of special architectural or historic interest which they possess.

Specific advice on the treatment of cultural heritage in the marine environment can be found in The Joint Nautical Archaeology Policy Committee (JNAPC) *Code of Practice for Seabed Development*. This can be found at: [http://www.thecrownestate.co.uk/jnapc code of practice 2](http://www.thecrownestate.co.uk/jnapc_code_of_practice_2). Historic Scotland also recommends that the ES takes on board the following sector-specific guidance, particularly in respect of approaches to mitigation where the ES identifies effects to a marine historic asset within the development area:

- Historic Guidance for the Offshore Renewable Energy Sector:
http://www.offshorewindfarms.co.uk/Assets/archaeo_guidance.pdf

Historic Scotland recommend that you engage a suitably qualified archaeological/historic environment consultants to advise on, and undertake the detailed assessment of impacts on the historic environment and advise on appropriate mitigation strategies.

Baseline Information

Information on the location of all archaeological/historic sites held in the National Monuments Record of Scotland, including the locations and, where appropriate, the extent of scheduled monuments, listed buildings and gardens and designed landscapes can be obtained from www.PASTMAP.org.uk.

Data on scheduled monuments, listed buildings and properties in the care of Scottish Ministers can also be downloaded from Historic Scotland's Spatial Data Warehouse at

<http://hsewsf.sedsh.gov.uk/pls/htmldb/f?p=500:1:8448412299472048421::NO> .

For any further information on those data sets and for spatial information on gardens and designed landscapes and World Heritage Sites which are not currently included in our Spatial Data Warehouse please contact hsgimanager@scotland.gsi.gov.uk. Historic Scotland would also be happy to provide any further information on all such sites.

The developer should use RCAHMS Canmore database as an additional source of data (PASTMAP is quite limited for the marine environment) in addition to the SEA study for the area undertaken by Wessex Archaeology – see

http://www.offshore-sea.org.uk/consultations/SEA_7/SEA7_Archaeology_Wessex.pdf. However a search of Canmore and Seazone hydrospatial reveals nothing beyond the one wreck that the scoping report has identified (more of a recorded loss than a located site).

Please note that the Receiver of Wreck is unlikely to provide the necessary information on located wreck sites (this is not her role). Finally, the ES could usefully refer to specific advice on the treatment of cultural heritage in the marine environment that can be found in the Joint Nautical Archaeology Policy Committee (JNAPC) *Code of Practice for Seabed Development* (see http://www.thecrownestate.co.uk/jnapc_code_of_practice_2 and also the *Historic Guidance for the Offshore Renewable Energy Sector* (see http://www.offshorewindfarms.co.uk/Assets/archaeo_guidance.pdf

Navigation

The Environmental Statement should supply detail on the possible the impact on navigational issues for both Commerical and Recreational craft, viz.

Collision Risk

Navigational Safety

Risk Management and Emergency response

Marking and lighting of Tidal Site and information to mariners

Effect on small craft navigational and communication equipment

Weather and risk to recreational craft which lose power and are drifting in adverse conditions

Evaluation of likely squeeze of small craft into routes of larger commercial vessels.

Visual intrusion and noise

Defence Estates

On assessment the proposed development falls within Naval Exercise Areas X5538 Islay and X5539 Orsay, these Naval Exercise Areas facilitate submarine, aircraft and HM Ship training.

The proposed location lies directly across the coastal route for ships proceeding north to the Minch thus having navigational safety implications which will require ships to divert around the project. The location will also impinge on naval manoeuvre space required by submarines causing strategic implications.

In light of the above, the MOD has concerns due to there being only one exit route from the North Channel for deploying submarines that has sufficient depth of water for it to be conducted whilst dived. It is therefore essential the Navy maintain this dived route as any encroachment into this area would prevent its use.

Chamber of Shipping

Scoping report suggests that the scheme proposes to install tidal devices in area covering approximately 8 square km located due west of Rhinns of Islay Lighthouse. The proposed location has no defined Traffic Separation Scheme and commercial routes either passing through or in close proximity. So, in view of this Chamber of Shipping believe that the proposed site does not pose significant risk to the shipping activities, routes and safety and we have no objection to submit against the proposal. Having said that, in order to ensure the accuracy of the statement made in the scoping report, it is recommended that shipping related 'AIS' data analysis/information is also included in the EIA. Chamber of Shipping do, however, reserve the right to change from the current position at a later date, if any new evidence is contrary to what has been stated in the scoping report.

Minimum clearance between the device and the mean sea level surface should be approximately 25m (if the device blades stay underwater). This is warranted in order to mitigate various environmental hazards prevalent for most of the year in that region. However, it is appreciated that the design has not yet been finalized, and due consideration may be given to lesser clearances from the mean sea level. This would be based on the finalization of details in the EIA and confirmation of exact location (if it is to be mounted well away from shipping traffic). One of the statements suggests a clearance from the mean sea surface of around 5m from the tip of the rotor blade and that in Chamber of Shipping's view is not acceptable

As suggested in the scoping document that the technology to be installed in the proposed location is still in the development stages and in fact untested. As such, Chamber of Shipping will not be in position to provide detailed comments on the chosen design. However, there is concern over the fact that the risks posed to shipping are significant in case the device was to break loose and float on the sea surface. The suggestions made in the report that the device will be gravity mounted poses significant risk and therefore Chamber of Shipping would seek assurance to ensure that the device will be made fast to the sea bed.

Use of AIS technology to mark the proposed site from the outset, thereby reducing some of the navigation risk to mariners.

Cumulative Impact study – In light of recent announcements by the Crown Estates to award further zones in future for wind farm, wave and tidal developments in Scotland, Chamber of Shipping recommend that the EIA takes account of all the developments proposed in close proximity. The study report should include information on the overall impact of future proposals on shipping safety and navigation related issues (if any).

Maritime and Coastguard Agency

In the project description, on page 4 of the scoping report, reference should also be made to the existence or absence of any other routeing/reporting measures of which Traffic Separation Schemes are but one.

Page 7 - The statement "It would not be essential to permit shipping movement over the devices" is not understood

Page 11 the statement "it is unlikely that there would be any potential for the safe navigation for large vessels over the site" is not understood.

Page 111 The results of the traffic survey may help to inform the consultation process by identifying other marine users. The navigational risk assessment will be assessed against the requirements in MGN 371, appropriate to the project, and not just Annex 1 Section 1 as indicated in the scoping document.

Northern Lighthouse Board

Northern Lighthouse Board would likewise advise that you may wish to refer to MCA document MGN 371 which supersedes MGN 275 and that in addition to the Electricity Act 1989 section 36, the Scottish Government S.I. Electricity Works (Environmental Impact Assessment (Scotland) Regulations 2000.

It is noted that the site will be initially planned as a demonstrator project before progressing to a full production site contained within the consented area.

Northern Lighthouse Board would require that the Navigation Risk Assessment must be specific with regard to reduced clearance depths between the device or devices (including any installed subsea infrastructure) and Lowest Astronomical Tide levels, taking into account the effects of adverse weather conditions which will further reduce this clearance, and the resulting impact on safe navigation in this area. The NRA should also include sections relating to the promulgation of Navigation Warnings both local and national due to the international use of this area of UK sea. The warnings should be promulgated before any commencement of survey, exploration and testing, also any installation, operation, maintenance and decommissioning periods.

Northern Lighthouse Board would anticipate that a Method Statement would form part of the CPA Application, and note that the number and pattern of 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 by any permanent moorings, or temporary moorings deployed during any installation and de-commissioning activities.

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 route and landfall location in order that the Admiralty Chart is updated to give information of the installation. We note that the concept design for connection to the near shore/shore does not indicate as to whether the entire cable route will remain sub-sea or require intermediate platforms supporting transformer stations. Any platform would create an increased danger to surface navigation and would therefore be required to have marking and lighting as per the relevant regulation and guidelines.

Northern Lighthouse Board would comment that any vessels involved in the project are capable of operating in the conditions commonly experienced around the west coast of Islay with a suitable margin of additional operational and safety capacity. Consideration should also be given to the deployment of a guard or safety vessel with recovery capability for personnel, equipment and device components should any unexpected failure or incident require intervention. The barges and vessels used should be lit and marked as per the International Regulations for the Prevention of Collisions at Sea 1972.

There is an area of particular concern in respect to any device proposed for the demonstrator site, in that any turbine component(s) considered as being buoyant under a failed condition would require that an indication of any catastrophic device failure should it have the ability to float free or be mobile in a sub-surface state. Any components becoming detached and which are not in

negative buoyancy shall be communicated to the MCA to ensure the mariner is informed immediately. The design of the device should incorporate a monitoring capability or deployable/activated transmission and signalling system in this event.

Northern Lighthouse Board would reserve the right to amend this initial statement in the light of further discussion or the provision of additional information

9. Ecology, Biodiversity and Nature Conservation

Designated sites

SEPA

Much of the south west of Islay is designated as Special Protection Areas (SPA), Sites of Specific Scientific Interest (SSSI), Special Areas of Conservation (SAC) and RAMSAR and disturbance issues should be addressed in discussion with Scottish Natural Heritage (SNH).

Argyll and Bute Council

The proposed site SW of the Rinns of Islay does not lie within any nature conservation or historic environment or landscape designation. It is, however, overlooked by the West Islay Coast Area of Panoramic Quality (regional significance), and there are a number of listed buildings and a conservation area on the Islay coast at Portnahaven and Port Wemyss. 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. 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 other onshore SSSI/SPA designations in the vicinity of the development, 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.

SNH

European Sites

Two European sites require consideration from a marine perspective. Southeast Islay Skerries SAC, designated for its common (harbour) seal (*Phoca vitulina*) colony, located approximately 40km from the proposed development site. The location is indicated on the map provided in Appendix A of the SNH consultation response.

North Colonsay and Western Cliffs SPA, designated for its breeding colonies of seabirds, is located approximately 50km from the proposed development site. Currently, the site boundary of the North Colonsay and Western Cliffs SPA is proposed to be extended to include a seaward area, up to 2km offshore. This site is also indicated on the map provided in Appendix A. SNH consider that the distance this site lies from the proposed development site is at the upper end of how far most auks will travel in the breeding season.

The conservation objectives for both of the aforementioned sites are provided in Appendix B of the SNH consultation response.

Whilst not an issue for SNH to address as it lies within Northern Ireland's jurisdiction, it should also be noted that Rathlin Island SPA is around 40km from the proposed development site and well within guillemot/razorbill range. The qualifying species for Rathlin are guillemot, razorbill and the assemblage (puffin plus the alcides, kittiwake, herring and lesser black-backed gull and fulmar). Northern Ireland Environment Agency should be able to provide further advice on this site and we strongly recommend DP Energy contact them as soon as possible. We have copied our response to the NIEA.

The European sites that require consideration from a terrestrial perspective are Rinns of Islay SPA, designated for a range of bird species including Greenland white-fronted geese, chough, corncrake and hen harrier. The Rinns of Islay is also designated in part as an SAC which is important for marsh fritillary butterfly. Consideration should also be given to possible impacts of installation and/or upgrading of overhead power lines on birds, (particularly on geese and chough which are mobile across many parts of Islay) from all other SPAs on Islay where they are included in the list of designated features. These sites are Bridgend Flats SPA, Laggan, Islay SPA, Gruinart Flats SPA, Eilean na Muice Duibhe SPA and The Oa SPA.

The likely survey requirements and available sources of information for marine mammals and seabirds are set out in Appendix C and the legislative requirements for European sites are summarised in SE Circular 6/1995, as amended June 2000 – please see Appendix D. For listings of qualifying interests of each of the mentioned sites and the conservation objectives, please see: <http://www.snh.org.uk/snh/> and click on the blue "SiteLink" box

SNH identifies Rinns of Islay Site of Special Scientific Interest (SSSI) as a key site of national importance which will need to be considered by the applicant in respect of the proposed onshore infrastructure and, in particular, the cable connection where the subsea cable from the proposed tidal array comes onshore. The SSSI is designated for a range of species and habitats but of most significance to this proposal are its breeding and wintering bird communities, which are supported directly by open ground and the complexity of semi-natural habitats, particularly moorland and bog and agricultural land-use present on the site. A copy of the SSSI citation is available from "SiteLink" on;

http://hts11:7778/pls/portal/Sitelink.Show_Site_Document?p_pa_code=1354&p_Doc_Type_ID=1

In respect of all other onshore infrastructure, SNH's advice on survey requirements for designated sites, habitats and species is provided in Section 6, Appendix C of the SNH consultation response

Habitats

SEPA

Assessment of the potential impacts on the intertidal and subtidal habitats and species should be based on a suitable survey. This will inform the developer of any sensitive habitats and species vulnerable to damage and measures that can be put into place to minimise impacts upon them. Further guidance on appropriate surveys should be sought from SNH. This can form the basis of the environmental description presented in the ES document.

It would be useful for the developers to get in touch with the Argyll and Bute Local Biodiversity Action Plan so that any mitigation measures to minimise impacts on species/habitats can be developed at an early stage. Further information can be found at the following website: <http://www.argyll-bute.gov.uk/biodiversity/index.htm>

Maps should be provided showing the site boundary, device locations and cable routes along with designated areas and areas containing species/habitats of conservation importance.

SNH

SNH advise that any survey work undertaken for the site must be relevant to the EIA and to any Appropriate Assessment that may be required under the Habitats regulations (as outlined in Appendix D) and must provide enough information to enable the three tests under European Protected Species to be carried out.

Species

The ES needs to show that the applicants have taken account of the relevant wildlife legislation and guidance namely, Coast Protection Act 1949 section 34, Council Directives on The Conservation of Natural Habitats and of Wild Flora and Fauna, and on Conservation of Wild Birds (commonly known as the Habitats and Birds Directives), the Wildlife & Countryside Act 1981, the Nature Conservation (Scotland) Act 2004, the Protection of Badgers Act 1992, the 1994 Conservation Regulations, Scottish Executive Interim Guidance on European Protected Species, Development Sites and the Planning System and the Scottish Biodiversity Strategy and associated Implementation Plans. In terms of the SG Interim Guidance, applicants must give serious consideration to/recognition of meeting the three fundamental tests set out in this Guidance. **It may be worthwhile for applicants to give consideration to this immediately after the completion of the scoping exercise.**

It needs to be categorically established which species are present on the site, and where, before the application is considered for consent. The presence of protected species such as Schedule 1 Birds or European Protected Species must be included and considered as part of the application process, not as an issue which can be considered at a later stage. Any consent given without due consideration to these species may breach European Directives with the possibility of consequential delays or the project being halted by the EC. Likewise the presence of species on Schedules 5 (animals) and 8 (plants) of the Wildlife & Countryside Act 1981 should be considered where there is a potential need for a licence under Section 16 of that Act.

SNH

SNH is obliged to inform Scottish Government and developers about European Protected Species which may be affected by the proposal. Please note that a license may be required from Scottish Government before undertaking some types of survey on EPS which result in disturbance. The legislative requirements relating to cetaceans and otters is detailed in Appendix E of the SNH consultation response.

We advise that a minimum of 2 full years (24 months) of survey work is required for cetaceans, seals, basking sharks and birds for each phase of development. Less than 2 full years' survey data will not provide SNH with enough information to advise regulatory bodies such as Marine Scotland on natural heritage impacts of the development.

SNH are currently in the process of producing guidance on survey methods and protocols for marine wildlife in relation to marine renewable devices. We hope that this will be completed by March 2010. In the interim there are a number of organisations that DP Energy can approach for advice in relation to appropriate survey methodology for marine wildlife monitoring. SNH would be happy to provide contact details of appropriate organisations if requested.

Birds

RSPB Scotland

RSPB Scotland is supportive of renewable energy developments, including those in the marine environment, as we believe climate change is currently the biggest threat to biodiversity in the world today. However, little is known about potential effects of tidal generators on marine wildlife, with the implementation of this technology in its infancy. It is essential that developers carry out as much monitoring as is feasible in order to inform developments, whilst regulators should ensure that consents are issued with as full a knowledge as possible of the potential impacts so that serious effects can be avoided or at the very least mitigated.

This sea area west of Islay will provide a habitat for a variety of marine species, those potentially most at risk are seabed habitats, diving birds, seals, cetaceans and sharks. These species are at risk of potential collision with the structures and disturbance and displacement from the development zone.

RSPB Scotland advises that the assessment should consider how this proposal would be likely to impact upon these species at different times of the year. Those bird species most likely to be impacted will be diving-species such as guillemot, razorbill, cormorant, shag, eider, seaduck and diver species. The EIA should consider potential mitigation measures and should follow standard COWRIE guidelines.

Little data exists on the actual usage and densities of diving birds within this area and we would advise that a comprehensive survey is undertaken as part of the EIA process. It is likely that species using the area will change between seasons especially between summer and winter. Recording bird locations, numbers and behaviour, including diving duration and approximate dive distances, through surface boat based survey work should provide an indication of species/numbers using the site and any preferred feeding areas. Since boat based surveys maybe limited in the temporal coverage of the site, HD aerial video surveys may also be required to provide adequate coverage throughout the year. Standard COWRIE/JNCC methodology should be utilised for surface based boat surveys, ideally a 2year survey period as inter-annual variation may be considerable.

We note that the scoping report mentions the possibility of collisions with mammals, fish and birds and recognise that turbines within a water medium have very different physical parameters in comparison to wind turbines, as do the birds that may collide with them. The concept of comparing the rotor speed of a sea-based turbine with the usage of the underwater environment by a marine organism is currently a novel one. It is a concept which is intimately tied up with a species behavioural responses to a number of variables, principle amongst these must be marine currents and distribution of food resource within an area, which will determine their diving depth, location and period. Tidal energy devices will be novel structures to organisms using the marine environment and how they react to them is not known. Although they will emit some noise and electromagnetic fields, it needs to be established how marine organisms will react to this. Furthermore, their visibility will alter depending upon both the clarity of the water column and behavioural factors such as reduced awareness of surroundings when pursuing prey.

Although a difficult and new field, sub-surface monitoring would be required to form some assessment of collision potential. Survey work within the sea, especially at depth, has technical and practicality issues, the deployment of remote sensors should ideally include both video and sonar. We are aware that currently research work is being carried out on establishing the sonar signatures of birds. These could be installed on/near the structures used in the phase one demonstration project to monitor potential interactions between mammals/birds/sharks and the tidal energy devices. If a different choice of device is chosen for phase two and three then similar information should be presented to inform/consider potential impacts before each stage is initiated.

Although we can see the benefits that the developer hopes to gain from a 'technology neutral approach', particularly given the infancy of the technology involved, this will make it more difficult to assess the final EIA due to a lack of certainty over the form of the final development. We would advise that a series of conditioned consents or a system of additional information is submitted to inform the EIA at different project stages/phases, or that the licensing process is applied to each phase of the project. We would also advise that the developer sets out the potential impacts of each different device clearly within the Environmental Statement (ES) to aid assessment. Initial survey work should be carried out (2 year period) to inform the assessment for the first phase.

Further survey/monitoring work and assessment should be undertaken during and following the phase one demonstration stage (minimum 1 year survey data), to enable an assessment/consideration of potential impacts before proceeding to the phase two 50MW installation. At least another year of survey/monitoring of the phase two stage should be required to facilitate an impact evaluation before implementation of the 400MW final phase. This will enable a full consideration of the proposal as it develops. Further input in terms of survey requirements may be necessary at each stage.

Monitoring of the final 400MW (phase three) array should be undertaken to further inform our understanding of the potential interactions between marine sub-surface tidal energy arrays and marine organisms. Monitoring/survey at the various project stages will probably be too short term to pick up any changes in usage of the area (dependant upon how long the project remains at phase 1 and 2) therefore longer term monitoring of any completed tidal site should be able to inform of any negative/positive impacts. Monitoring should be secured through conditions of any consent. Consideration should also be given to any potential cumulative impacts with any other wave/tidal devices and/or offshore wind farms in the vicinity.

Mammals

SEPA

Depending upon the form of the devices there maybe a risk of collision with sea mammals. This needs to be addressed in the ES in discussion with SNH and the Sea Mammal Research Unit (SMRU).

RSPB Scotland

In relation to collision, perhaps even more important than the seabirds in this context are marine mammals, particularly cetaceans. The Hebridean Whale & Dolphin Trust may have some information pertaining to this area but this is likely to be limited and boat based transects should provide some further information. Cetaceans are thought to be highly susceptible to noise and consideration of potential displacement from tidal imagery sites should be considered. The chances of a tidal array resulting in collision incidents or displacement of marine mammals needs to be assessed. It is well known that the sea area the Inner Hebrides hold a notable concentration of basking sharks. Due to its size, this species may be at particular risk of collision. Although often seen at the surface on calm summer days, much of the rest of its life history, including feeding depth and distribution, remains unknown. RSPB advise more specific consideration is given to this species – ongoing research (including satellite tagging) may provide some useful information on this species to assist in informing the EIA. Installation of devices may act like false reefs combined with a no-take fishing area, between the structures, acting as a nursery ground for fish species. Inadvertently this may attract marine organisms into the site area and therefore increase the possibility of collision impacts?

RSPB Scotland are aware that the developer has been meeting with a wide variety of consultees and is meeting with the locally based Scottish Association for Marine Science (SAMS in Oban). Utilising their expertise to inform the EIA should assist in identifying and minimising potential impacts.

SNH

A wide range of cetacean species (dolphins, porpoises and whales) use the area for passage and for feeding. The full list of these cetaceans (regular and occasional visitors) is given in Appendix C of the SNH consultation response. All of them are protected under the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) as European Protected Species (EPS), and the Nature Conservation (Scotland) Act 2004. Further information is required on the distribution and usage by cetaceans of this area before it is possible to assess whether there is likely to be any significant effects on these species. SNH can provide advice on proposed survey methodology.

Otters (*Lutra lutra*) are also an EPS and they may be found along the Islay coastline. Further information is required on the distribution and usage of otters in this area before it is possible to assess whether there is likely to be any effect on otters as a result of the proposed shore works. The likely survey work needed for otters is addressed in Appendix C - Section 6(ii) on terrestrial ecology.

As well as the cetaceans listed above which are protected as EPS, there are colonies of grey seals (*Halichoerus grypus*) and common (harbour) seals (*Phoca vitulina*) which may use the proposed development area for passage and for feeding. The beaches on the Isle of Oronsay (approx. 40 km from the development) are used by grey seals for pupping. Basking sharks (*Cetorhinus maximus*) have also been recorded using the area for passage and/or feeding.

The legislative protection which is afforded to these species is noted in Appendix C. Available data on their distribution / frequency of use / passage routes in the proposed development area is currently sparse. Therefore SNH advises that survey work on marine mammals and basking sharks will be required, in addition to a desk-based review of any available information. Further detail is provided in Section 3(iii) of Appendix C.

Fish

Association of Salmon Fishery Boards

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 project site could be highly relevant given the importance of the area to migratory salmonids such as sea trout and salmon
- 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?

- It is worth emphasising that the habits of sea trout are rather different and this species will use inshore areas more extensively as a feeding area before migration into freshwater systems. Accordingly there may be a risk of more prolonged interaction with sea trout in relation to the project.

Fisheries Research Services

The potential for offshore renewables projects to impact on migratory fish stocks will vary depending on the design and location of the development in relation to migratory routes for adults and juveniles. Potential impacts could include physical impact or avoidance due to noise or electromagnetic sensitivity.

The ES will need to consider the potential impacts of the proposal on migrating adult and juvenile salmonids. The ES should review available information on migration routes and migratory behaviour of salmonids. The ES should also review available information on the impact of noise and electromagnetic sensitivity on salmonids. This should be combined with information on the development to assess potential impacts and mitigation.

In cases where there is uncertainty over potential impacts it will be necessary for the developer to implement a monitoring strategy to assess the influence on salmonid fish populations. This methodology should also be detailed in the ES

SNH

SNH advises that the applicant also needs to consider Atlantic salmon or trout, a UK BAP species, with regard to whether the proposed tidal array may act as a potential barrier to migrating salmon travelling to or from their spawning rivers. On Islay there are a number of rivers and streams used by spawning salmon and trout, notably the Sorn and the Laggan. The barrier may be physical – the collision risk potentially presented by the turbines themselves – or it may be indirect such as potential noise disturbance or turbulence arising from the turbines. A literature review may be helpful in order to consider these issues, and consultation with the relevant District Salmon Fisheries Boards and the overarching Association of District Salmon Fishery Boards is recommended.

We confirm that we do not identify a requirement for any survey work specifically in respect of fish species (other than basking shark and see Section 2.10 above for our advice on Atlantic salmon). We do, however, advise that the finalised turbine layout should be sensitive to any spawning areas that may possibly be identified (see Section 4 of Appendix C of the SNH consultation response for further advice on survey work in relation to benthic ecology).

Sub-tidal benthic ecology

SEPA

The ES should provide a description of the test site and address the sensitivities of the habitats and species present to the construction activities. It is important that during the design stage the potential damage to marine habitats is minimised as much as possible.

SNH

SNH welcomes the underwater survey work in the proposed development location which has been undertaken by the applicant and that these have been augmented with underwater stills and video footage to ground truth the benthic ecology of the area. Similar work will be required on the route of any underwater cabling once the location of this has been considered. We recommend that benthic survey data should be analysed by an experienced marine biologist in order to identify any habitats or species of conservation concern (Annex 1 or UKBAP Priority Marine Habitats) such as maerl.

Attention should also be paid to establishing whether there are habitats that support the prey fish for birds from nearby Natura sites (such as sandbanks which may support sandeels) as well as identifying any spawning areas for fish species such as cod.

This data will enable the developer to micro locate cables to prevent damage to these habitats. If the cable makes landfall in Loch Indaal it is likely to encounter sea grass (*Zostera marina*) – a UK Bap Priority habitat. SNH would be pleased to advise on the suitability of any survey methods chosen.

10. Water Environment

Developers are strongly advised at an early stage to consult with SEPA as the regulatory body responsible for the implementation of the Controlled Activities Regulations (CAR), to identify 1) if a CAR license is necessary and 2) clarify the extent of the information required by SEPA to fully assess any license application.

All applications (including those made prior to 1 April 2006) made to Scottish Ministers for consent under section 36 of the Electricity Act 1989 to construct and operate a electricity generating scheme will require to comply with new legislation. In this regard we will be advised by the Scottish Environment Protection Agency (SEPA) as the regulatory body responsible for the

implementation of the Water Environment (Controlled Activities) (Scotland) Regulations 2005, and will have regard to this advice in considering any consent under section 36 of the Electricity Act 1989.

SEPA produces a series of Pollution Prevention Guidelines, several of which should be usefully utilised in preparation of an ES and during development. These include SEPA's guidance note PPG6: Working at Construction and Demolition Sites, PPG5: Works in, near or liable to affect Watercourses, PPG2 Above ground storage tanks, and others, all of which are available on SEPA's website at <http://www.sepa.org.uk/guidance/ppg/index.htm>. SEPA would look to see specific principles contained within PPG notes to be incorporated within mitigation measures identified within the ES rather than general reference to adherence to the notes.

Prevention and clean-up measures should also be considered for each of the following stages of the development;

- Construction.
- Operational.
- Decommissioning.

Construction contractors are often unaware of the potential for impacts such as these but, when proper consultation with the local fishery board is encouraged at an early stage, many of these problems can be averted or overcome.

- Increases in silt and sediment loads resulting from construction works.
- Point source pollution incidents during construction.
- Obstruction to upstream and downstream migration both during and after construction.
- Disturbance of spawning beds during construction - timing of works is critical.
- Drainage issues.
- Sea Bed and Land Contamination

The ES should identify location of and protective/mitigation measures in relation to all private water supplies within the catchments impacted by the scheme, including modifications to site design and layout.

Developers should also be aware of available CIRIA guidance on the control of water pollution from construction sites and environmental good practice (www.ciria.org). Design guidance is also available on river crossings and migratory fish (SE consultation paper, 2000) at <http://www.scotland.gov.uk/consultations/transport/rcmf-00.asp>.

SEPA

The ES should provide information on the current hydrodynamics and sediment transport patterns at the project site and address the likely changes to these once the array is installed.

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.

From 1 April 2006 the The Water Environment (Controlled Activities) (Scotland) Regulations 2005 (as amended) (CAR) replaced the Control of Pollution Act and Groundwater Regulations. These regulations not only control discharges to watercourses and land but also cover abstractions, impoundments and engineering works within and in the vicinity of inland surface waters. This means that activities such as culverting, ditch clearing, dredging, bridging and damming all now require to be authorised under CAR.

In order to ensure proportionate controls over activities, the Regulations provide for three levels of control: General Binding Rules (GBRs), Registrations and Water Use Licences. If SEPA considers that GBRs or a Registration will not provide sufficient environmental protection, SEPA can require a higher level of control. For example, SEPA could require an activity which was covered by GBRs to be Registered or even Licensed. Any person undertaking an activity which falls within the scope of the GBRs do not have to contact SEPA but must abide by any rule laid out in the Regulations which relates to their activity. However, an application must be made to SEPA for a Registration or Licence. SEPA has 30 days for determining an application for Registration and 4 months for a Licence; this should be taken into consideration when planning works. CAR allows a variety of different authorisable activities at the one site to be covered by a single licence.

The publication 'The Water Environment (Controlled Activities) (Scotland) Regulations 2005: A Practical Guide' provides very useful advice on CAR and it is recommended that the applicant consult this document which is available both from SEPA's website (http://www.sepa.org.uk/water/water_publications.aspx) and from local SEPA offices.

Watercourse Engineering and Abstractions

If applicable, the applicant may require authorisation from SEPA for any impoundments, abstractions and 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.

Note: engineering works in coastal and transitional waters are not regulated by SEPA under CAR. Such works will continue to be regulated by the Fisheries

Research Services (FRS) under the Food and Environment Protection Act 1985 (FEPA). To request a FEPA licence the FRS Marine laboratory can be contacted on 01224 876544.

Surface Water Drainage

As the risk of pollution from surface water drainage from small scale residential developments, or to non-sensitive coastal waters, is lower, SEPA does not itself regulate through CAR such discharges provided a satisfactory scheme is proposed. Therefore, if you ensure compliance with General Binding Rules (GBRs) 10 and 11 of these regulations, for both the construction phase and the final surface water scheme, then you are not required to contact SEPA for authorisation. The GBRs can be found on page 9 of the CAR Practical Guide – available at http://www.sepa.org.uk/water/water_publications.aspx or in your local SEPA office.

SEPA has produced a leaflet as a useful Do's and Don'ts guide on SuDS (Sustainable urban Drainage Systems), with further explanation on the legal requirements. This is available from SEPA's website at http://www.sepa.org.uk/water/water_publications/suds.aspx or from your local SEPA office.

Technical guidance on SuDS techniques and good practice is available within The SUDS Manual (C697) published by Construction Industry Research and Information Association (CIRIA). This new publication can be downloaded from CIRIA's website at www.ciria.org/downloads.htm

SNH

SNH is supportive of the geophysical assessment and the desk study proposed by the applicant and considers that, for this location, this should be sufficient to assess the potential impacts of the proposed turbine array on coastal and marine processes. If the applicant needs to undertake any water flow modelling in respect of turbine placement then we recommend that this modelling also considers natural heritage aspects – please see Section 5 of Appendix C of the SNH consultation response.

11. Other Material Issues

Waste

SEPA

SEPA has published a range of Pollution Prevention Guidance Notes, including PPG6: 'Working at Construction and Demolition Sites' – available from SEPA's website at

www.sepa.org.uk/water/groundwater/policy,_legislation__guidance/planning.aspx or from your local SEPA office. Although these guidelines are geared more towards the construction and demolition industry, the guidance on proper disposal of waste and pollution prevention measures is relevant to all developments.

SEPA encourages waste minimisation and reuse/recycling whenever possible. Further details can be found on SEPA's website (found at www.sepa.org.uk/waste/resource_efficiency.aspx or in your local SEPA office). There is also a link to key partners in the SEPA Waste Minimisation Programme.

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 Environment Protection & Improvement team in the local SEPA office.

RSPB Scotland

In considering potential impacts from contamination via leakage from devices, the likely quantities of oil/anti-fouling and other potential contaminants contained within a structure (nacelle and base) should be provided along with an assessment of different anti-fouling techniques/requirements.

Consideration should be given to multiple leakage scenarios and impacts based on the escape of the full quantities contained within the different devices. Even a small release of oil can impact on seabirds and anti-fouling material could have a localised-medium effect dependant on rate of dilution. Consideration needs to be given to combined effects of the different agents used within the devices.

Traffic Management

The Environmental Statement should provide information relating to the preferred route options for delivering the turbines etc. via the trunk road network. The Environmental Impact Assessment should also address access issues, particularly those impacting upon the trunk road network, in particular, potential

stress points at junctions, approach roads, borrow pits, bridges, site compound and batching areas etc.

Where potential environmental impacts have been fully investigated but found to be of little or no significance, it is sufficient to validate that part of the assessment by stating in the report:

- the work has been undertaken, e.g. transport assessment;
- what this has shown i.e. what impact if any has been identified, and
- why it is not significant.

Highlands and Islands Airports

The only issue that HIA would like to see addressed (depending on the type of installation proposed) is details of the actual height and position of any structures above sea level. This would then allow the assessment to be made against the instrument approach procedures for Islay Airport

13. General ES Issues

In the application for consent the applicant should confirm whether any proposals made within the Environmental Statement, eg for construction methods, mitigation, or decommissioning, form part of the application for consent.

RSPB Scotland

In regards to existing data, reference should be made to the Scottish Marine Renewables SEA at <http://www.seaenergyscotland.co.uk> which is a key document in the formation of the scoping report.

Reference should be made to DECC's Offshore Energy SEA website for information on marine species distribution, at http://www.offshoresea.org.uk/consultations/SEA_4/index.php.

The JNCC website <http://www.jncc.gov.uk/page-3> provides a wide range of range of marine based information from seabed habitat mapping to seabird survey methods –

<http://www.jncc.gov.uk/page-4514> ;

<http://www.jncc.gov.uk/page-1551> - seaduck survey;

<http://www.jncc.gov.uk/page-1554> - cetaceans.

Background information of previous bird & cetacean surveys can be found at <http://www.jncc.gov.uk/page-2407>, <http://www.jncc.gov.uk/page-2726> and <http://www.jncc.gov.uk/page-2713>.

The COWRIE site <http://www.offshorewindfarms.co.uk/Pages/COWRIE/> contains a variety of information and downloadable reports on offshore environmental assessment techniques etc and the www.aquaret.com site. It is unlikely that any useful information would be available from the local bird recorder for this area (Paul Daw - E-mail: monedula@globalnet.co.uk). Bird Reports and the book *Birds of Argyll*, edited by ap Rheinallt, T. et al. (2007) will provide some information on movements of birds seen from shore within the Inner Hebrides but not birds using the site.

The EIA should also consider what mitigation is required and how it would be achieved. Post installation opportunities may arise to enhance the area / a nearby area as a wildlife resource (however see note under collision above on potential increased attraction leading to increased collision), for example there maybe potential to create a sustainable coastal and marine management zone. It is understood that this development, and its associated timescales, is dependant upon a variety of factors, including a suitable grid connection. The details of how the tidal energy site is to be connected to any shore-based facilities will need to be considered within this application or as part of a separate EIA. We hope you find these comments helpful, should you require clarification of any of the above points please do not hesitate to contact me

SNH

SNH advises that the key information source for considering wave and tidal energy proposals in Scottish waters is the Strategic Environmental Assessment (SEA) for Wave and Tidal Energy that was commissioned by Scottish Government in 2006. The final report was published in 2007 and so it remains reasonably up-to-date. It includes extensive reference lists on a range of relevant issues and it can be found on the following web-site:
<http://www.seaenergyscotland.co.uk>

In particular, SNH recommends that the applicant refers to the collision risk report:

http://www.seaenergyscotland.net/public_docs/Appendix%20C7.B%20Collisions_report_final_12_03_07.pdf

There is also further data on marine species distribution available through BERR's Offshore Energy SEA website, specifically the report relating to the SEA 7 Area:

http://www.offshore-sea.org.uk/consultations/SEA_7/index.php

It will also be useful for the applicant to check available research which has been carried out for offshore wind farms by the COWRIE working group (Collaborative Offshore Wind Research into the Environment). Some of the issues which have been researched may also have relevance to tidal devices:
<http://www.offshorewindfarms.co.uk/Pages/COWRIE/>

4.11 SNH is supportive in principle of renewable energy. We can provide further advice on natural heritage interests, at appropriate stages, as work is undertaken by the applicant in support of their formal submission. In the meantime, if further information or advice is required at this stage then please contact Rae McKenzie, based in our Bowmore office.

Consultation

Developers should be aware that the ES should also be submitted in a user-friendly PDF format which can be placed on the Scottish Government website. Developers are asked to issue ESs directly to consultees. Consultee address lists can be obtained from the Energy Consents Unit. The Energy Consents Unit also requires 8 hardcopies to be issued internally to Scottish Government consultees.

Where the developer has provided Scottish Ministers with an environmental statement, the developer must publish their proposals in accordance with part 4 of the Environmental Impact Assessment (Scotland) Regulations 2000. Energy consents information and guidance, including the specific details of the adverts to be placed in the press can be obtained from the Energy Consents website; <http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Energy-Consents>

Gaelic Language

Where s36 applications are located in areas where Gaelic is spoken, developers are encouraged to adopt best practice by publicising the project details in both English and Gaelic (see also Energy consents website above).

OS Mapping Records

Developers are requested at application stage to submit a detailed Ordnance Survey plan showing the site boundary, access tracks and onshore supporting infrastructure in a format compatible with the Scottish Government's Spatial Data Management Environment (SDME), along with appropriate metadata. The SDME is based around Oracle RDBMS and ESRI ArcSDE and all incoming data should be supplied in ESRI shapefile format. The SDME also contains a metadata recording system based on the ISO template within ESRI ArcCatalog (agreed standard used by the Scottish Government), all metadata should be provided in this format.

Difficulties in Compiling Additional Information

Developers are encouraged to outline their experiences or practical difficulties encountered when collating/recording additional information supporting the application. An explanation of any necessary information not included in the

Environmental Statement should be provided, complete with an indication of when an addendum will be submitted.

Application and Environmental Statement

A developer checklist is enclosed with this report to help developers fully consider and collate the relevant ES information to support their application. In advance of publicising the application, developers should be aware this checklist will be used by government officials when considering acceptance of formal applications.

Consent Timescale and Application Quality

In December 2007, Scottish Ministers announced an aspirational target to process new section 36 applications within a 9 month period, provided a PLI is not held. This scoping opinion is specifically designed to improve the quality of advice provided to developers and thus reduce the risk of additional information being requested and subject to further publicity and consultation cycles.

Developers are advised to consider all aspects of this scoping opinion when preparing a formal application, to reduce the need to submit information in support of your application. The consultee comments presented in this opinion are designed to offer an opportunity to considered all material issues relating to the development proposals.

In assessing the quality and suitability of applications, Government officials will use the enclosed checklist and scoping opinion to scrutinise the application. Developers are encouraged to seek advice on the contents of ESs prior to applications being submitted, although this process does not involve a full analysis of the proposals. In the event of an application being void of essential information, officials reserve the right not to accept the application. Developers are advised not to publicise applications in the local or national press, until their application has been checked and accepted by SG officials.

Judicial review

All cases may be subject to judicial review. A judicial review statement should be made available to the public.

Signed

Authorised by the Scottish Ministers to sign in that behalf.

Enclosed - Developer Application Checklist