

**Fisheries Research Services**

Environment Protection Group

375 Victoria Road

Aberdeen,

AB11 9DB

Telephone: 01224 876544

Fax: 01224 295524

E-mail: [env\\_prot@marlab.ac.uk](mailto:env_prot@marlab.ac.uk)

Web: [www.frs@marlab.ac.uk](http://www.frs@marlab.ac.uk)



FISHERIES RESEARCH SERVICES

Food and Environment Protection Act 1985, Part II (as amended): Deposits in the Sea

## **Application for Marine Construction Works/Land Reclamation/Beach Replenishment in The Territorial Sea and UK Controlled Waters Adjacent to Scotland**

(Construction schemes including coast defences, beneficial uses of dredged materials, jetties, land reclamation, outfall pipes etc.)

**IMPORTANT:** before you start to complete this form, please read these notes carefully.

- This guidance is not intended to be definitive nor comprehensive and applicants are advised to refer to the Food and Environment Protection Act 1985, Part II (as amended): Deposits in the Sea under which this application is made. The notes should be read in conjunction with the Act as amended by subsequent legislation and the Deposits in the Sea (Exemptions Order 1985) (SI 1985 No 1699).
- For applications submitted electronically, a copy of the application form and accompanying documents, in pdf format, must be sent to [env\\_prot@marlab.ac.uk](mailto:env_prot@marlab.ac.uk). In addition, a signed hard copy of the application form must be accompanied by a location plan, descriptive drawing(s) (clearly identifying the Mean High Water Springs mark) and any supporting information including analytical data and environmental assessment. For non-electronic applications the completed application form, together with five photocopies, must each (both the original and the copies) be accompanied by a location plan, descriptive drawing(s) (clearly identifying the Mean High Water Springs mark) and any supporting information including analytical data and environmental assessment. All documents should be submitted to the above address **at least two calendar months before the licence is required**. Please note that should some of this material be protected by copyright you will be required to include additional original copies of that material to facilitate Fisheries Research Services (FRS) consultations (question 6(b) refers).
- Some dredging projects may raise matters that require a significantly longer time for consideration. This is most likely to be the case for large and potentially contentious projects where substantial volumes of material are to be removed and/or disposed; those taking place adjacent to or within a marine conservation area or requiring an environmental statement under environmental impact assessment Regulations. Applicants are advised to contact FRS as early as possible during the planning stage in order to avoid delays in determining their application.
- If a shorter period for consideration of the application is unavoidable, please give a full explanation. A period of two calendar months takes account of the need to consult other interested parties and the volume of other applications received and is designed to ensure that, except when significant problems arise, licences are issued by the date required by the applicant.
- Information should be provided about the anticipated duration of the entire project in respect of works below Mean High Water Springs (MHWS), together (where appropriate) with details of the planned phasing of the work for which a licence is sought during the first year and each subsequent 12 month period. Further application may be necessary to renew a licence that is due to expire. FRS will normally write to the licence holder three months before the expiry date to determine whether renewal is required.

- There are three licence fee categories for marine construction works, which are related to the estimated total cost of the marine works. For smaller projects, costing less than £3,135 in total, the licence fee is £105; for projects costing between £3,135 and £26,125 in total, the fee is £420; and, for projects costing in excess of £26,125, the fee is £1,045. When you have determined the relevant licence fee category, a cheque (or BACS) for the appropriate amount, made payable to 'the Scottish Executive' and 'A/C Payee Only', should be forwarded to the FRS Marine Laboratory with the signed application documents. The cheque should be accompanied by a declaration of the estimated total cost of the proposed marine works.
- The latter information is not required to verify your assessment of the relevant licence fee category, but it is essential if the Department is to consider revision of the criteria for determination of the fee categories to more adequately reflect applicants' requirements.
- It should be noted that the licence fees referred to above are calculated to recover only average costs incurred in processing an application and administering a licence. In some cases there will

be significant additional costs, usually associated with chemical analyses, monitoring studies or enforcement activities. Where significant additional costs are anticipated, you will be advised of the requirement and a separate charge will be requested to take account of the FRS Marine Laboratory's costs.

- Licences cannot be backdated. Licences are normally issued for a period of 12 months from the date of issue or the expected duration of a phase of work.
- The licence can also cover the temporary deposit of material (generated from construction work) to be used as backfill/beach replenishment.
- Please answer all the questions. If any information is not available at the time of application please indicate at the appropriate section, giving reasons in a covering letter, and submit the details separately as soon as possible. Any delay in forwarding details is likely to result in a delay in determining your application.

**It is the responsibility of the applicant to obtain any other consents or authorisations that may be required.**

**Under Section 14 of the Food and Environment Protection Act 1985 as amended by the Environmental Protection Act 1990, all information contained within or provided in support of this application will be placed on the Public register unless the Scottish Ministers approve the applicant's reasons for withholding all or part.**

### Public register

Is there any information contained within or provided in support of this application that you consider should not be included on the Public Register on the grounds that its disclosure:

*Please tick appropriate box*

(a) would be contrary to the interests of national security; or

YES  NO

(b) would prejudice to an unreasonable degree your or some other person's commercial interests or those of a third party?

YES  NO

If **YES**, to either (a) or (b), please provide full justification as to why all or part of the information you have provided should be withheld.

## Project title and payment details

1. Please give a brief identifiable description, including the location, of the works.

10 x 1MW unit demonstration tidal array to be located in the Sound of Islay.

Payment:  enclosed payment  OR  paid by BACS

## Applicant details

2. **Applicant for Licence:**

Title (e.g. Mr/ Mrs/Miss/Ms)  Initials  Surname

Trading title (if appropriate)  ScottishPower Renewables (UK) Limited

Address

Cathcart Business Park  
Spean Street  
Glasgow  
G44 4BE

Name of contact  
(if different)

Douglas Watson

Position within company  
(if appropriate)

Marine Development Officer

Telephone number  
(inc. dialing code)

0141 568 2153

Fax number  
(inc. dialing code)

0141 568 4450

Company Registration No.

Email

douglas.watson2@scottishpower.com

## Details of agent (if any)

3. Title (e.g. Mr/ Mrs/Miss/Ms)  Initials  Surname

Trading title (if appropriate)

Address

Postcode

Name of contact  
(if different)

Position within company  
(if appropriate)

Telephone number  
(inc. dialing code)

Fax number  
(inc. dialing code)

Company Registration No.

Email

## Duration of project

4. Start date

1<sup>st</sup> April 2013

Expected completion date

31<sup>st</sup> March 2014

A licence is normally valid for 1 year or the duration of the works (whichever is the longer) but not normally exceeding 3 years. The start date will not normally be backdated except in exceptional circumstances, since to commence works falling under Part II for which a licence has not been obtained may constitute an offence and may result in appropriate legal action being taken.

## Description and Cost of the proposed project

5. (a) Estimated gross cost of project (including materials, labour, fees etc.) for those works which it is proposed to undertake seawards of the tidal limit of Mean High Water Springs.

Estimated gross cost of the project is £40 million.

- (b) Give full details below of the proposed project.

Where the project is expected to take longer than 12 months to complete, you should provide details of the work to be done during the first 12 month period and that planned for each subsequent 12 month period. The method of construction etc. should be described in the answer to question 7.

Demonstration Array of the HS1000 tidal device.

The Demonstration Array of 10 x HS1000 tidal devices are expected to be operated during an initial 7-year lease period with possible extension to this lease to allow operation for up to 15 years.

The offshore foundation installation work is scheduled to take place in April 2013 and will last approximately 5 months.

Offshore cabling works to connect the turbines and export the electricity generated back to the shore will also be required. This is likely to take place during the period of April – September 2013.

*If necessary, please continue on a separate sheet and tick this box*

5. (c) **Types of work proposed**

*Please tick all appropriate boxes*

<b>Coastal/Flood defences:</b>	beach replenishment	<input type="checkbox"/>
	(see also Question 8(b))	
	armour facing	<input type="checkbox"/>
	breakwater	<input type="checkbox"/>
	groyne	<input type="checkbox"/>
	revetment	<input type="checkbox"/>
	sea wall	<input type="checkbox"/>
	berms/wave screens	<input type="checkbox"/>
	artificial reef	<input type="checkbox"/>
<b>Harbour works:</b>	dock wall/quay/wharf	<input type="checkbox"/>
<b>Navigation works:</b>	lock gates	<input type="checkbox"/>
	mooring (single/multiple)	<input checked="" type="checkbox"/>
	buoy/navigation mark	<input checked="" type="checkbox"/>
	training wall/breakwater	<input type="checkbox"/>
<b>Land reclamation:</b>	bunded/piled area	<input type="checkbox"/>
	mud flat/salt marsh feeding	<input type="checkbox"/>
	dock infill	<input type="checkbox"/>
<b>Intakes/outfalls pipes:</b>	intake/outfall	<input type="checkbox"/>
<b>Cables:</b>	cable/subsea cable	<input checked="" type="checkbox"/>
<b>Pipeline maintenance:</b>	pipe/pipeline maintenance*	<input type="checkbox"/>
<b>Piers etc.:</b>	bridge/bridge foundation	<input type="checkbox"/>
	pier	<input type="checkbox"/>
	jetty	<input type="checkbox"/>
<b>Bank stabilization:</b>		<input type="checkbox"/>
<b>Scour protection:</b>	gabion	<input type="checkbox"/>
	mattress	<input type="checkbox"/>
<b>Barrages &amp; islands etc:</b>	tidal barrier	<input type="checkbox"/>
	barrage	<input type="checkbox"/>
	artificial island	<input type="checkbox"/>
	rock placement	<input type="checkbox"/>

5. (c) **Types of work proposed**

*Please tick all appropriate boxes*

<b>Slipways:</b>	slipway	<input type="checkbox"/>
	causeway	<input type="checkbox"/>
	launching ramp	<input type="checkbox"/>
<b>Miscellaneous:</b>	habitat creation/replacement	<input type="checkbox"/>
	windfarm/tidal power	<input checked="" type="checkbox"/>
	aquaculture	<input type="checkbox"/>
	sculpture, statues, fountains etc.	<input type="checkbox"/>
	ground investigation works	<input type="checkbox"/>
<b>Other:</b>		

*\*For work not covered by a Works Authorisation under the Petroleum and Submarine Pipeline Act 1975 or the petroleum Act 1998.*

6. (a) **Please detail below the location of the proposed construction project**

This should include either National Grid References (NGR) or Latitude and Longitude co-ordinates (WGS84, to 2 decimal minutes) defining the extent of the project. NGR should consist of two letters followed by 6 digits (e.g. TL632317) where the first 3 digits are the eastings (read from the south west corner of an Ordnance Survey map) and the last 3 digits are northings. For positions read from charts of 1:25,000 scale or smaller, the format should be, e.g. 55°55'.55N 2°22'.22W. The decimal point specifies that decimals of minutes are used and the datum is stated explicitly. If seconds are used then the datum should be explicitly marked, e.g. 55°55'44"N 2°22'11"W. For positions read from larger scale charts, e.g. 1:10,000, three decimal places of minutes should be used, e.g. 55°55'.444N 2°22'.222W. It is important that the correct positions are included with this application, as any errors may result in the application being refused or delayed.

The project will be located within the bounds of The Crown Estate Lease Area and Caol Ila Bay. The coordinates of the proposed lease area are:		
A:	6° 6'.0861W	55° 50'.8111N
B:	6° 5'.8918W	55° 50'.8242N
C:	6° 5'.8541W	55° 50'.7621N
D:	6° 5'.7680W	55° 50'.4930N
E:	6° 5'.6908W	55° 49'.971N
F:	6° 5'.8825W	55° 49'.9621N
G:	6° 6'.0037W	55° 50'.5360N

*If necessary, please continue on a separate sheet and tick this box*

(b) **The following MUST be provided with the completed application form:**

- (i) a suitably scaled extract of an Ordnance Survey Map (e.g. 1:25,000 scale or larger) or Admiralty Chart which should be marked to indicate:
  - the location of the project in relation to the surrounding area;
  - the level of Mean High Water Springs;
  - any adjacent SAC, SSSI, SPA/Ramsar or similar conservation area boundary.
- (ii) construction plans and sections (showing work relative to tidal range) showing those proposed works below (i.e. seaward of) Mean High Water Springs, which should give details of the materials to be used (for beach nourishment the quality and source of material to be deposited is also required);

- (iii) a descriptive schematic drawing and suitably scaled (e.g. 1:2,500 but no more than 1:10,000) location plan (either at A3 or A4 format) which show the full extent of the project in relation to the surrounding area. The applicant should note that these drawings/plans may be copied to others as part of the FRS's consultation procedures. If they are subject to copyright, **it is the responsibility of the applicant to obtain necessary approvals to reproduce the documents and to submit suitably annotated copies with the application.**

7. Detailed method of construction, indicating any temporary structures e.g. causeways, jetties, landing stages to be constructed below Mean High Water Springs and measures to be taken:

- (a) to minimise any risk to the marine environment;

It is estimated that the ten devices could be installed over a period of approximately 72 days (not including weather downtime). This has made allowances for spring and neap tidal cycles. Offshore cable and pre-substructure installation activities will be conducted in advance of the installation of the nacelles. There is also the possibility of installing the array in phases to allow for weather downtime.

The HS1000 is designed so that it can be installed without the need for specialised marine installation equipment or specially designed vessels and without the requirement to use divers.

It is anticipated that the installation will consist of four phases:

- Pre installation of mooring systems and arrival of barges in preparation for construction activities;
- Heavy lift vessel on site to lift and move the substructures onto the barges;
- Anchor handling vessel to move substructures from the barge onto location for ballast operations and cable pull in; and
- A lift vessel will be used to install the nacelles once the site is prepared.

The principal option being considered for moored barge location is the bay at the Caol Ila distillery. Detailed bathymetric surveys were undertaken in summer 2008 but further survey work will be required to determine the optimum area to be used, taking into account the bathymetry of the near shore areas. In addition to this, analysis of the relevant depth contours and profiles will be undertaken to ensure that the sites selected are suitable and any impact on navigation for vessels transiting the Sound of Islay will be reviewed.

Each substructure can be lifted, transported and set down during a neap tide slack period. Once the substructure is in position, ballast weight will be installed onto the substructure to prevent sliding through the spring tide cycles prior to the nacelle installation and cable connection.

Once moved into position, additional ballast will be loaded onto the substructure to secure it against the overturning loads imposed by the turbine.

Once the substructure is secured into position and stabilised, the high voltage cable will be lifted to the substructure, pulled in and then secured ready for final mating.

The positioning, installation of ballast and the cable pull in will take approximately 56 hours. This preparatory work would take place during all tides and main installation activity during neap tide cycle phases.

In the Sound of Islay, the use of more than one installation vessel in parallel is unlikely to be possible due to navigational constraints.

A Navigational Safety Risk Assessment (NSRA) has been carried out, which assessed the possible impact of the installation activities.

*If necessary, please continue on a separate sheet and tick this box*

8. (a) **Quantity of permanent materials to be deposited below MHWS:**

Timber (m <sup>2</sup> or tonnes)	<input type="text"/>	Iron/Steel (tonnes)	<input type="text" value="11200"/>	Plastic/Synthetic (m <sup>2</sup> )	<input type="text" value="10"/>
Silt (m <sup>3</sup> )	<input type="text"/>	Sand (m <sup>3</sup> )	<input type="text"/>	Concrete (m <sup>3</sup> )	<input type="text"/>

Concrete bags/mattresses  
(confirm number, dimensions & total volume m<sup>3</sup>)

Stone/Rock/Gravel  
(confirm size range in mm & total volume m<sup>3</sup>)

If 'Other', please describe below

Other materials as per the Sound of Islay Environmental Impact Assessment, the amounts specified are for an array of 10 machines.  
 11200t of carbon steel for the nacelles, ballast weights and substructure of the 10 machines.  
 CABLE CONNECTORS: Duplex stainless steel approx 1t  
 MACHINE: 1t of bronze for machine seals, 120t glass/carbon/epoxy composite, 60t copper (including subsea cable), <10t plastics. Total lubricants are expected to be in the order of 28,500 litres – this will be contained in the hub, gearbox, hydraulics, main bearing and generator of the nacelles. 1t bronze. 3.5t aluminium in the anodes.  
 10,000 litres of paint for the nacelle and substructures and 1000litres of antifoulant coating.

*If necessary, please continue on a separate sheet and tick this box*

(b) Method of delivery of material.  
 If sea delivery, please include details of the vessels to be used with a chart of the proposed route and any proposed transshipment area.

This will be confirmed after the appointment of an Installation contractor

(c) For work involving salt marsh feeding, beach replenishment or land reclamation please provide the following information relating to the material to be deposited:

(ii) quantity (tonnes)

(iii) nature of material  
 e.g. sand, silt, gravel etc.

(iv) source (if sea dredged  
 please state location of origin)

*Please tick appropriate box*

(v) Has the material been chemically analysed? YES  NO

If **YES**, please include the analysis data with your application.

(vi) Particle size

9. **Will there be a need to make any temporary deposits of material below MHWS during the works?** YES  NO

**Quantity of temporary materials to be deposited below MHWS:**

Timber (m <sup>2</sup> or tonnes)	<input type="text"/>	Iron/Steel (tonnes)	<input type="text" value="4500"/>	Plastic/Synthetic (m <sup>2</sup> )	<input type="text"/>
Silt (m <sup>3</sup> )	<input type="text"/>	Sand (m <sup>3</sup> )	<input type="text"/>	Concrete (m <sup>3</sup> )	<input type="text"/>

Concrete bags/mattresses  
(confirm number, dimensions & total volume m<sup>3</sup>)

Stone/Rock/Gravel  
(confirm size range in mm & total volume m<sup>3</sup>)



If 'Other', please describe below

Temporary positioning of ballast which is included in permanently installed material above (note: this will be buoyed temporarily to aid retrieval. Buoyage will be removed when in place).

Barges in Caol Ila Bay will be temporarily anchored to the seabed – these will be removed after the tidal devices have been installed.

*If necessary, please continue on a separate sheet and tick this box*

10. **Do you intend to apply for a licence to DISPOSE AT SEA material dredged as part of the works?** YES  NO

If **YES**, please indicate:

(i) Nature of material for disposal (sand, gravel, silt, clay, rock etc.)	n/a
(ii) Quantity of material For disposal (tonnes)	n/a

11. **Please detail below all consents you have applied for or received**

Type of consent	(tick appropriate box)		Reference No.	Date of issue of consent
	Applied for	Not applied for		
1. Local Planning Authority (LPA) (e.g. Town and Country Planning Act)		x		
Name and address of LPA for Location of proposed works:				
2. Land Owner e.g. <sup>1</sup> The Crown Estate	x			
3. Local Port or Harbour Authority e.g. local work licence*		x		
4. Scottish Environment Protection Agency (SEPA)		x		
5. Other including <sup>2</sup> Coast Protection Act 1949, <sup>3</sup> The Electricity Act 1989, approval to grant/loan sanction etc. (please specify):	S36 CPA			

*\* Licences should be obtained and a copy included with this application  
1, 2, 3 – contact addresses at end of form*

12. Do you, or (if appropriate) your client, have statutory powers to consent any aspect of this project? YES  NO   
If **YES**, please give details

13. **Advertising and consultation**

(a) Have these proposals been advertised to the public? ..... YES  NO   
If **YES**, how and where?

The Oban Times – advert July 2010  
The Glasgow Herald – advert July 2010  
The Gazette – advert July 2010  
Public Information Days (Jura and Islay) – Feb 2009 and July 2010

(b) Have the public been invited to submit comments? ..... YES  NO   
If **YES**, to whom and by what closing date?

The Scottish Government (Marine Scotland) 28 days after the final advert, which will be on the 5<sup>th</sup> August 2010.  
  
To SPR staff at the Public Information Days.

(c) Have any consultation meetings with the public been arranged? ..... YES  NO   
If **YES**, where and when are these to be held?

Public Information Day 28<sup>th</sup> July – Jura  
Public Information Day 29<sup>th</sup> July – Islay

*If necessary, please continue on a separate sheet and tick this box*

**Conservation Bodies**

14. **The Consenting Authorities have a duty to ensure that any dredging and disposal will not have a significant adverse environmental impact, particularly upon designated conservation areas such as SSSIs/SAC, SPA/Ramsar sites and other areas listed under the Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004. If the applicant (particularly if they have statutory powers for consenting aspects of these works) has been in consultation with the appropriate nature conservation body – Scottish Natural Heritage (SNH) – it is likely to hasten the processing of your licence if copies of all such correspondence are submitted with the application.**  
Where the views of SNH are not known, FRS will undertake consultation with the appropriate body about the application. Please provide copies of correspondence with SNH or indicate below if no consultation has yet taken place.

Consultation attached; this was carried out as part of the initial scoping process through the Scottish Executive.

*If necessary please continue on a separate sheet and tick this box*

15. Are any part of the dredging and/or deposit operations proposed located: *Please tick appropriate box*

within the boundaries of a designated conservation area (SAC, SPA/Ramsar site, SSSI etc.)?

YES  NO

If **NO**, and the boundary of the nearest such site is within 5 kilometres, Please indicate approximate distance of the works from this boundary

16. Has an environmental assessment been undertaken to support any planning application in respect of the works, your own statutory powers (if applicable) or any other reason?

YES  NO

If **YES**, is a copy of the assessment included with this application?

YES  NO

(Please provide an explanation if the assessment has been made and a copy is not available)

Is the environmental assessment available for public inspection?

YES  NO

If **YES**, at what locations:

Argyll and Bute, Islay Council Office, Jamieson Street, Bowmore, Islay, PA43 7HP

Islay Energy Trust, Custom House, Main Street, Bowmore, Isle of Islay, PA43 7JJ

Jura Servicepoint, Schoolhouse, Craighouse, Isle of Jura, PA60 7XG.

The Scottish Government Library, Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD.

### Declaration

I declare to the best of my knowledge and belief that the information given in this form and related papers is true.

### WARNING

**It is an offence under the Act under which this application is made to fail to disclose information or to provide false or misleading information.**

Signature  Date

For and on behalf of the applicant

Name in BLOCK LETTERS

Position within company (if appropriate)

**Please check carefully the information you have given  
and that all the enclosures (including copies) have been included**

**Useful addresses:**

**<sup>1</sup>The Crown Estate**

6 Bell's Brae, Edinburgh, EH4 3BJ

**<sup>2</sup>Scottish Executive** – Transport Directorate,

Scottish Executive, Ports and Harbours Branch, 2G North, Victoria Quay, Edinburgh, EH6 6QQ

**Scottish Executive** – Enterprise, Energy and Tourism Directorate

<sup>3</sup>Energy Division, Renewables & Consents Policy, 2<sup>nd</sup> Floor, Meridian Court, 5 Cadogan Street, Glasgow, G2 6AT