

CONSULTATION DOCUMENT – SCOPING OF THE REGIONAL ENVIRONMENTAL ASSESSMENT ON MARINE RENEWABLE ENERGY

1. Overview – Marine Renewable Energy and Environmental Assessment

With the long-term price of fossil fuels due to rise, and concerns about climate change being induced by rising levels of atmospheric carbon dioxide, there is a global movement towards a transition to renewable energy sources. With some of the strongest tidal currents in the world, and with coasts facing the Atlantic Ocean, the Channel Islands are well placed to benefit from Marine Renewable Energy. If followed to its natural conclusion, the development of Marine Renewable Energy could comprise of several groups (or ‘arrays’) of energy generation devices mounted on the sea-bed or floating on the surface of the sea around Guernsey, Herm and Sark. Associated infrastructure would include sub-sea cables, navigation markers and shore-based control facilities. There is potential for the Islands to reduce their own Carbon Footprint and also to establish themselves within a new global industry.

The States Energy Policy Report of June 2008 identified the need for The Commerce and Employment Department to establish a Commission to promote and consent the development of renewable energy in the seas around Guernsey for the benefit of its people. The Guernsey Renewable Energy Commission (GREC) is due to be legally established in 2010, and until then, a shadow Commission has been set up to take forward the work programme required for the establishment of a licensing regime allowing for the orderly exploitation of Guernsey’s renewable energy resources.

In addition to GREC, the Guernsey Renewable Energy Forum (GREF) has been established to act as an independent forum of stakeholders to enable discussion and sharing of information about renewable energy.

It is recognised that, whilst having better environmental performance than conventional or fossil fuel based power sources, Renewable Energy Projects are not always without their own impacts. Therefore, in accordance with best practice relating to all major developments, an Environmental Assessment is to be undertaken to identify and mitigate environmental impacts.

To start the Environmental Assessment process, GREC is preparing to produce a **Regional Environmental Assessment (REA)**. This is a strategic-level environmental study to determine the environmental sensitivities of the waters around Guernsey, and the likely environmental impacts (positive and negative) of renewable energy developments. This public consultation has been prepared to canvas opinion as to the specification or **scoping of the REA**, so that we can make sure that the work properly covers all of the necessary elements.

After production of the REA, future stages of the Environmental Assessment will be:

- Detailed surveys and analysis of environmental data to allow a clear understanding of baseline conditions. The requirements for these will be defined in the REA.
- Where specific projects are proposed, these are subject to a detailed Environmental Impact Assessment (EIA), to be undertaken by the prospective developer. The results of this are taken forward into the planning, design and consenting of a project.
- Post-construction monitoring is undertaken through the life of the project to record the actual environmental impact that is experienced, so that this may be used to improve current and future projects

Public Consultation is regarded as essential to ensure that all of the benefits of a project are achieved and negative impacts are properly understood and minimised.

2. The REA Scoping Proposals

We have prepared the scoping report to clearly define the work that we will be undertaking. It has been prepared in collaboration with a number of environmental specialists from the Guernsey Renewable Energy Forum (GREF) who live and work in Guernsey or elsewhere in the Channel Islands.

The public may inspect a copy of the document at the Guille Allès Library, at the States offices at Sir Charles Frossard House, La Charroterie, St Peter Port or may download the Report from the Website www.guernseyrenewableenergy.com. Please let us know what you think of the proposals in this consultation paper and the REA scoping document. We would be particularly interested to hear if there is any person, group or subject area that has not been considered. The Consultation is open to anybody, whether responding in a professional capacity or as a resident of Guernsey, Herm or Sark, one of the other Channel Islands or from the UK or overseas, or as a prospective Developer. You can respond in a number ways.

- Email us at enquiries@guernseyrenewableenergy.com
- Write to us at

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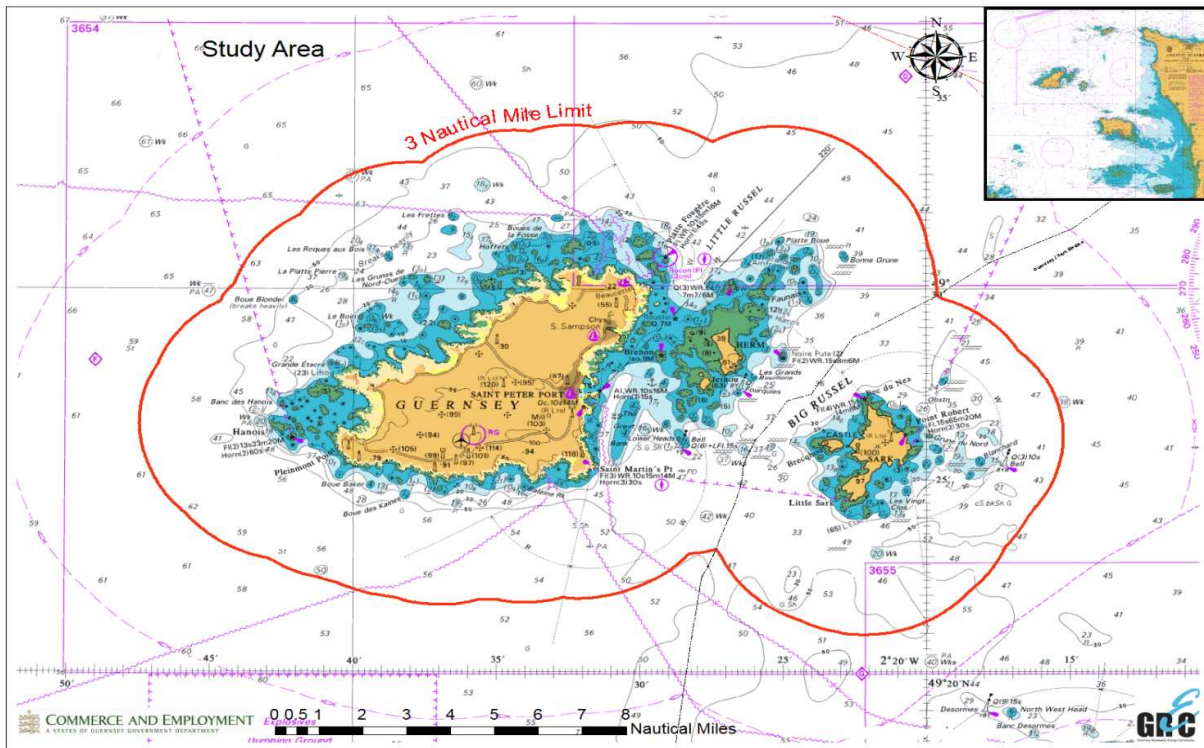
Please make your response by 10th December 2009.

The study area that will be covered by the REA includes:

- All of the territorial waters of Guernsey, Herm and Sark, to within 3 Nautical Miles of the coast
- Inter-tidal and coastal areas within 200m of the shore (at MHWS) where landfall and connection infrastructure are considered to impact

The study area is illustrated in the figure below. The island of Sark also benefits from a significant tidal energy resource. Therefore, Guernsey and Sark have agreed to a joint approach to the completion of the Environmental Assessment and the scope of the REA is extended to include Sark's territorial waters.

In order to focus on Guernsey's Tidal and Wave resources, the scope of the REA excludes the development of wind energy.



3. How will the Regional Environmental Assessment be Prepared?

As per the scoping document, the actual REA will be prepared in collaboration with a number of environmental specialists from the Guernsey Renewable Energy Forum (GREF) who live and work in Guernsey or elsewhere in the Channel Islands. We anticipate that by using local specialists and by consulting widely and regularly with the public, the enormous wealth of local knowledge and experience can be brought to bear in the production of the REA. However, in areas where it is found that there are gaps in local expertise, additional expertise will be sought from the UK.

The REA will be prepared using existing available data that will be obtained from local and UK sources. The data will be stored, managed and presented using a Geographic Information System (GIS). This will allow overlay of energy resource and environmental data onto navigational charts and we will seek to identify the best locations for deployment sites.

A draft REA report is due to be ready early next summer, and will be presented for another round of public consultation prior to finalisation.

4. The Concerns – What impact will Renewable Energy have on the Environment of Guernsey, Herm and Sark?

When we use the word ‘Environment’ we commonly think of ecological aspects such as wildlife, plants and their habitat, and perhaps the things that would obviously threaten them such as noise or pollution. These aspects will, of course, be covered by the REA. However, humans are part of the environment as well, and a number of additional topics are covered to reflect this. The REA scoping document contains a complete list of sensitivities to be investigated, but the following list gives some of the key items:

- Seabed Geology and Sediment Transition** – eg. Will structures influence the deposition of sand and gravels?
- Marine Processes** – eg. Will energy devices at one location change tidal flows or wave height elsewhere?
- Sediment Contamination and Water Quality** – eg. Is there a risk of pollution from the devices?
- Protected Sites and Species** – eg. Will energy devices affect designated protected areas?
- Benthic Ecology** – eg. What impact will the devices have on life on the sea bed?
- Pelagic Ecology** – eg. What about the rest of the water column above the sea bed?
- Birds** – eg. Will birds’ nests be disturbed by the installation of cables across the foreshore?
- Marine Mammals** – eg. Will seals or dolphins be disturbed or damaged by the devices?
- Terrestrial Fauna** – eg. Will shore-side work such as control buildings impact on animals?
- Terrestrial Flora** – eg. Are there any rare plants that could be at risk from shore-works?
- Commercial Fisheries** – eg. Will the devices be a hazard to fishing, and would any exclusion zones provide as nurseries to help replenish stocks?
- Marine and Coastal Historic Environment** – eg. Are there any wrecks on the likely routes of cables or in the likely deployment sites?
- Cables Pipelines and Onshore Grid Connections** – eg. Can the existing electricity grid accommodate additional generating capacity?
- Shipping and Navigation** – eg. Will the devices interfere with or present a danger to shipping?
- Tourism and Recreation** – eg. Will the introduction of renewable energy act as a tourist attraction, or perhaps deter visitors?
- Social Impact** – eg. Are there any groups that would suffer as a result of the introduction of renewable energy?
- Traffic and transportation** – eg. Will the existing road network cope? Where will any new industrial facilities be located?
- Noise** – eg. Will people or animals be disturbed?
- Landscape and Seascape Character** – eg. Will the devices be visible from shore, and will they be overly obtrusive?

By receiving feedback from the public on the Regional Environmental Assessment Scoping Document, we will be able to make sure that we cover all of the relevant issues in the preparation of the REA, which is due to be commenced in December 2009.

5. FAQ - (Frequently asked Questions)

The Guernsey Renewable Energy Commission (GREC) have produced a FAQ's with the aim of answering any additional questions regarding the proposed Scoping of the Regional Environmental Assessment

1. What is the REA Scoping Report?

The Scoping Report identifies the subjects to be covered and the information to be used in the Environmental Assessment. It is not, in itself, an Environmental Assessment but instead it highlights the issues that need to be considered in that Assessment when it is prepared.

2. Will the REA cover specific Deployment Sites or Devices?

The Regional Environmental Assessment will not be an assessment of a specific location or device, nor will it require significant new physical surveys, although the Assessment will identify any specific areas of concern that arise and recommend further areas of research that should be undertaken in future.

3. Why do you need to consult the public?

We want to make sure that we have considered all of the aspects of the Environment and existing users of the sea that could be affected by the development of Marine Renewable Energy. In doing so, we can be confident in the quality of the REA. Therefore, it is not simply an ecological assessment, but it also includes issues concerning navigation, shoreline facilities and the concerns of other existing interests, such as fishing and boating, etc.

4. Why is the study area limited to the Bailiwick's 3nm territorial limit?

At present, Guernsey and Sark jurisdiction only extends to those limits. Therefore, in the short term, we do not envisage giving consent to any developments in the seas beyond. At this time it is considered better to concentrate on the sea areas where renewable energy might be feasibly developed within the next 10-20 years.

5. Why is Offshore Wind Energy excluded?

At this time, it is thought that the environmental concerns relating to offshore wind (eg. noise, visual impact, birds and aviation), mean that this technology will not be adopted in the Bailiwick. This could be reviewed in the future, should the need for offshore wind become apparent.

6. Why is Onshore Renewable Energy Generation excluded?

Guernsey already has a robust planning system on land. Therefore, the work of GREC will not extend to the consenting of shore-based energy projects. Consequently, this is also excluded from the REA.

7. Will the Renewable Energy be for domestic use, or for export?

Initially, the amount of renewable energy generated will be small in relation to our own requirements. Therefore, it makes sense that the majority of this would be consumed locally, with perhaps an excess being directed along the existing interconnector cable to Jersey or France. However, as more arrays are developed, much more could be exported.

8. When will Marine Renewable Energy Arrive in Guernsey

It is not anticipated that the Island will see any renewable energy until at least 2014. After that, it is likely that will take at least up to 2020 to establish the minimum development scenario of 100MW installed capacity.

9. Will Marine Renewable Energy be expensive?

Renewable Energy will initially be expensive compared with fossil fuel or nuclear energy for a number of reasons:

- a) There will be considerable costs associated with manufacturing and installing the energy devices offshore. In addition, when in operation, the devices will require maintenance and occasional replacement of parts. At present, the overall cost of renewable energy can be considerably greater than that produced from fossil fuels. However, the relative cost of renewable energy will fall as devices become more efficient, mass produced and more widely used. At the same time, the cost of oil and other fossil fuels is likely to increase, leading to a rise in the cost of conventional energy. There will be a point at which the cost of conventional energy will match that of renewable energy.
- b) The cost to the consumer is made up from the cost of the energy from the supplier, together with the cost of distribution through a network to homes and businesses. GREC is working with the Office of Utility Regulation to understand the likely proportion of renewable energy that could be used in the overall mix, and the impact that it would have on Guernsey's consumer tariffs.

10. What benefits would Marine Renewable Energy bring?

In addition to reducing our own carbon emissions, Marine Renewable Energy will give us greater independence regarding the cost and security of our energy. When we are able to arrange for deployment of more than one array, we will be able to look at generating revenue from the export of energy to Europe. It may also provide an opportunity to diversify Guernsey's economy.

11. Will this be my only chance to comment on the Environmental Assessment work?

No. A final draft of the REA will be presented to the public in early summer 2010 for consultation prior to final production.

If you have any further questions relating to the consultation process, please look at the information shown on the website www.guernseyrenewableenergy.com or contact us at the address shown in section 2.