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PLANNING AND CONSENTS FOR MARINE RENEWABLES

GUIDANCE ON CONSENTING ARRANGEMENTS IN ENGLAND AND WALES FOR A PRE-COMMERCIAL DEMONSTRATION PHASE FOR WAVE AND TIDAL STREAM ENERGY DEVICES (MARINE RENEWABLES)

NOVEMBER 2005


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1. Introduction

1.1 This document sets out the application of existing lease and consenting procedures for all small-scale marine renewable energy generation demonstration devices in English and Welsh territorial waters and the whole of the UK Renewable Energy Zone (REZ) except that part beyond Scottish territorial waters[1]. It does not cover the procedures for larger commercial scale wave and tidal stream projects which will only go ahead on the basis of a full Strategic Environmental Assessment and a Crown Estate site lease competitive round; this is not expected to happen for several years.

2. Background

2.1 The UK is recognised to be a global leader in the technologies to generate renewable energy from waves and tidal streams (marine renewables) and has the potential to create a world class industry.

2.2 *Future Offshore*, published by the DTI in 2002, proposed competitions for site leases in defined areas of sea which would be subjected to prior strategic environmental assessment (SEA). This was to apply only to commercial offshore renewable energy developments as it was only when the technologies reached commercialisation that there would be sufficient interest from developers for a competition to be held. This is what has since happened with offshore wind energy. While *Future Offshore* was primarily focused on wind, it anticipated that, in the case of wave and tidal stream devices, competitive rounds would be preceded by a phase in which there were requests from developers for sites for demonstration projects and stated that these would be considered on their merits.

2.3 The marine renewables industry is now at the pre-commercial stage which requires sites for installation of demonstration devices to validate the technologies used and advance industry learning with the aim of driving down costs. Guidance on how the consenting arrangements will be applied is required by both developers and stakeholders (although no new legislation or regulation is involved). These arrangements need to be appropriate and proportionate to the risk and scale of the potential impacts of the devices involved so that the UK marine renewables industry is given the opportunity to develop quickly but with due safeguards.

[1] Consenting policy for Scotland is devolved, including in principle agreement to devolving responsibility for consents beyond Scotland's territorial waters. Developments in Northern Ireland territorial waters are subject to a separate consents regime.

3. Objective

3.1 Wave and tidal-stream power have the potential to play an important role in supplying the nation's future energy needs and in meeting renewable energy targets.

3.2 The early stage development of this new industry will therefore be facilitated by Government wherever possible as it is essential to the understanding of the devices, their impacts and, ultimately, the development of Government policy for future competitive commercial rounds for either or both of wave and tidal stream projects.[2] Learning from the demonstration projects will be used to allow the effective introduction of such rounds.

3.3 The purpose of the demonstration phase is to ensure that marine renewable developers have the opportunity to implement projects, but that they do so in a way that makes appropriate and proportionate recognition of all interests. It is intended that the demonstration phase be an information gathering phase for all parties, to acquire knowledge and so allow effective management of a future commercial round.

3.4 The DTI Technology Programme has already committed in excess of £20m to single device projects[3]. Under the DTI 'Wave & Tidal Stream Energy Demonstration Scheme' £50m has now been allocated by the Government for multiple device (i.e. arrays of two or more devices) projects[4] with the objective of putting the U.K. at the intellectual heart of the marine renewable industry. The demonstration phase is intended to further develop and prove new or innovative uses of technology in terms of both engineering and environmental impact.

3.5 It should be noted that decisions on site leases and grant funding are entirely separate from decisions on individual consents applications submitted to the regulatory bodies. Consent applications will be subject to a minimum 28 days public consultation in the normal way and assessed in terms of the Environmental Impact Assessment which the applicant will need to undertake for the project.

Rationale: If the U.K. can create the right conditions for the nascent wave and tidal-stream energy industry to thrive, the desired benefits (combating climate change, security and sustainability of energy supply) will ensue. Whilst the interests of stakeholders in specific projects and sites will be fully considered during the consenting process, these will be balanced against the wider public interests both in achieving energy policies and targets and in development of a new world class UK industry. The limited scale and short duration of the demonstration phase will also need to be taken into account.

[2] Pre-commercial demonstration phases (which may overlap could include: model testing, scaled prototype testing in the sea, demonstration of full-scale single devices or pre-commercial arrays).
[3] Wave and tidal stream single devices remain eligible to apply for funding under the Technology Programme.
[4] www.dti.gov.uk/renewables/business_pdfs/waveandtidalstreamdemonstrationscheme.pdf

It is important to recognise that there are two distinct phases of activity that must occur, largely in succession, to reach a point where wave and tidal-stream energy are used commercially to generate renewable electricity.

The first, the demonstration phase, is primarily concerned with the development of the resources and capabilities of the industry that designs, develops and manufactures wave and tidal stream electricity generation devices (as distinct from the renewable electricity generation supply sector). The aim is to encourage and assist its evolution to become an industry that is capable of offering commercially viable electricity generation devices and products to the market. In order for this to be achieved it is essential for developers to test and prove their devices (individually or in small arrays) in places where appropriate wave and tidal resources are present. Development of a UK industry will be best served by testing and proving in UK waters.

The second phase is the commercial generation phase. When the industry reaches a point where commercially viable products are available, it will be possible for the electricity generating industry to plan and implement commercial generation projects. When sufficient companies are proposing commercial generation projects, it will be appropriate for the Crown Estate to hold a competition for the award of site leases.

4. Consenting requirements

4.1 Before a developer can deploy marine energy devices in the sea it must get the agreement of the Crown Estate to a site licence or lease and obtain the relevant development consents/licences. The principle consents/licences are a consent from the DTI under the Electricity Act 1989 if the generating station has a capacity above 1MW and in all cases a licence under the Food and Environmental Protection Act 1985 and the Coastal Protection Act 1949 from Defra. (Where an Electricity Act consent is required, no separate CPA consent for the generating station is necessary.) Consent under the Town and Country Planning Act 1990 either from DTI (via "deemed planning permission" under the Electricity Act 1989) or the relevant local authority will also be required for the associated onshore works. Separate approvals as regards the laying of electricity export cables may be required from Port Authorities and the Environment Agency. Detailed guidance on the consents process can be found at www.dti.gov.uk/energy/leg and reg/consents/guidance.pdf. Preparation of an Environmental Impact Assessment will be critical to the consent application and this is considered further at section 7 below.

5. Demonstration Phase

5.1 Key elements of the demonstration phase are:

i) A demonstration (or pre-commercial) project is defined as being a project whose primary purpose is to test, prove and validate new or innovative uses of technology or combinations thereof.

ii) The demonstration phase will be a pre-commercial development phase having a number of objectives including:

a. Development and validation of engineering and technical aspects of devices and demonstration of their commercial potential.
b. Development of understanding of the environmental impacts of devices and their potential impacts on other uses or users of the sea, through monitoring and research.
c. Establishment of a stakeholder engagement framework to facilitate subsequent implementation of the commercial phase.
d. Evolution and refinement of the consents process and adaptation as appropriate to new technologies and their impacts.

iii) It is expected that demonstrator projects will be limited in number, duration and scale by current technical capability, commercial considerations and the likelihood that public funding – from finite resources – will be required. A call for bids for funding under the 'Wave & Tidal Stream Energy Demonstration Scheme' will be held during Q1 2006[5]. Revenue support for individual projects under the Scheme will be available for up to 7 years from commissioning. The maximum amount available per project will be £9 million.

Rationale: Current indications are that in the next few years only a small number of projects will be both sufficiently well advanced from a technical perspective to be ready to commission a pre-commercial demonstration device; and be sufficiently promising to have attracted the management resources and capabilities, and therefore the requisite finance, to proceed.

The purpose of a pre-commercial demonstration phase is to develop and prove the effective functioning of the device and its suitability for use on a commercial scale. Value creation arises from enhancing the credibility of the technology and success in the demonstration phase will be marked by the ability to raise funds for commercial projects.

The nature of the pre-commercial demonstration phase for new marine renewable energy generation technologies is that project costs will be relatively high. Project viability will generally depend on availability of public funding; likely to be required by the majority if not all projects. As a result, projects will necessarily be modest in scale given their relatively high costs.

The Crown Estate site licence or lease terms for eligible demonstration projects will be that the duration of the lease will be restricted to a period

[5] EC State Aids approval now given.

appropriate to meet the objectives of the demonstration phase, which will be significantly shorter than the duration of a lease for commercial generation of renewable electricity.

In order to allow for the efficient management of the process for gaining leases and DTI funding, applications for funding[6] will be assessed by a panel including DTI Officials and The Crown Estate. The panel will assess the merits of a project in relation to its eligibility both for DTI funding and for a Crown Estate site licence or lease. However, it should be borne in mind that not all projects will require public funding to proceed and ultimate responsibility for the site lease and for funding decisions rest separately with the Crown Estate and with the DTI respectively.

6. Location

6.1 The choice of site for a demonstration project will be made by the developer and will depend, amongst other things, on the requirements of the device concerned. Wave devices are likely to require different sites from tidal stream devices.

6.2 In selecting a site, developers should ensure they have sufficient knowledge and understanding of the local environment, its sensitivities and potential risks. Early consultation with, inter alia, Maritime and Coastguard Agency (MCA), Trinity House, Ministry of Defence (MOD) [7], English Nature[8], Countryside Council for Wales and Joint Nature Conservation Committee as appropriate is encouraged. It will be particularly important to resolve any issues involving navigational safety.

6.3 This guidance refers to consenting policy in English and Welsh waters within and beyond the territorial limit and beyond the territorial limit for Northern Ireland. However, there are no geographical restrictions within the UK on where developers of demonstration projects are able to apply for (a) a site lease or licence from The Crown Estate and (b) financial support under the 'Wave & Tidal-Stream Energy Demonstration Scheme'. Note also that the MCA as an agency of the Department for Transport has responsibilities for the whole of the U.K.

6.4 It should be noted that a 'hub' aimed at servicing the needs of a number of small scale demonstration wave devices through provision of grid connections and consents is planned in the South West of England[9]. The Government supports this proposal and to date it has been wholly supported by public funds; although it should be noted that this proposed development remains subject to Section 36 approval. It is only one approach to technology demonstration but may offer efficiencies for the industry and stakeholders.

[6] www.dti.gov.uk/renewables/business_pdfs/waveandtidalstreamdemonstrationscheme.pdf
[7] Through the Safeguarding team in Defence Estates
[8] To become 'Natural England' in Autumn 2006
[9] www.wavehub.co.uk

Rationale: Developers will need to satisfy consenting bodies through the EIA of the suitability of their site choice. Consenting costs in areas of environmental sensitivity may be high. Infrastructure projects such as the proposed South West Wave Hub are perceived to have generic benefits. They are likely to concentrate the siting of a number of projects in one location which should yield efficiency gains for developers, stakeholders and government bodies, statutory consultees and interested stakeholders. For example, developers will need to devote less time and fewer resources to grid connections; stakeholders will be asked to consider fewer sites, and their interests may be affected less when compared with the development of projects on a greater number of sites.

7. Environmental Regulation

7.1 It is not proposed that an SEA will be conducted for the demonstration phase for the areas covered by this guidance. The reasons are explained in the rationale. It is noted, however, that the Scottish Executive are looking at an SEA and the future work described in Sections 11 and 13 will include liaison with the Scottish Executive. Much of the monitoring and research work during the demonstration phase (See Section 8) will significantly contribute to and form part of the SEA.

7.2 All demonstration projects will be subject to the requirements of Environmental Impact Assessment (EIA) regulations and the Habitats Regulations (where applicable) in the normal way and will be required to produce an adequate EIA to accompany any consent application. Developers are encouraged to consult on scoping for individual projects so as to ensure the views of stakeholders are considered in preparing those EIAs. EIAs will need to be sufficiently robust and comprehensive to provide clarity on the likely impacts and the risks associated with them.

7.3 In view of the current stage of industry development and the importance of marine renewable energy to future renewable energy generation and therefore the environment, it is essential that devices and their impacts are understood in a timely and efficient manner. It is therefore essential that the demonstration phase be allowed to commence expeditiously where appropriate. Projects will only be required to provide levels of data for EIA and Habitats Regulations, as applicable, that are proportionate to the perceived risk and scale of adverse impacts. Where potentially greater impacts are identified, assessment requirements will be more rigorous, and any mitigation measures and monitoring requirements will be more onerous. It will be important for a dialogue with stakeholders to be maintained during the life of the projects to enable proper assessments of the data gained.

Rationale: The undertaking of an SEA is already a requirement for all offshore commercial projects e.g. offshore wind farms. But at this stage, sufficient knowledge of marine renewables needs to be acquired in order to design a suitable SEA and there have been insufficient projects to date to provide the data required to test different scenarios under an SEA. Therefore, an SEA

would be unlikely to provide much helpful information as it will be very difficult to predict impacts of marine renewable technologies prior to their deployment for demonstration. Completion of an SEA will be a pre-condition for the start of any commercial phase and will be subject to full public consultation.

The EIA process will ensure that site decisions are made in a way that recognises and avoids any serious potential adverse impact of projects in relation to other users of the sea or on the marine environment. Overall, EIA requirements are likely to be less onerous than for commercial scale projects such as offshore wind farms.

8. Monitoring and Research

8.1 Plans for monitoring and research:

i) It is expected that conditions will be attached to consents/licences requiring monitoring of demonstration devices to be carried out during the demonstration phase.

ii) In addition, the Government intends to supplement the developers' project level research and development with generic research to help drive the industry forwards. A research programme specifically aimed at understanding potential impacts will be established in parallel with the demonstration phase, probably under the auspices of the Research Advisory Group (RAG – an inter-departmental Government group already managing projects on wind farm impacts).

iii) Financial support[10] to developers may be considered where monitoring and research will provide generic (rather than project specific) knowledge and also coincides with the scope and objectives of the research programme.

Rationale: The demonstration phase is an opportunity for developers to put their devices in the water prior to their impact being fully known and understood. A process to address the uncertain impacts of new marine renewable technologies will be initiated which will be supported by a co-ordinated programme of research. This will ensure maximum benefit is gained from opportunities for post construction monitoring to enable impacts to be quantified. The precise monitoring conditions imposed on developers are likely to vary between devices, projects and sites

The early work for a research programme will be to establish the questions that should be addressed, therefore define what monitoring should be carried out, and consequently what research projects should be commissioned. Input from developers, stakeholders and Government will be necessary to design a research programme.

[10] Including from Wave & Tidal Stream Energy Demonstration Scheme. See also 10(iii)

9. Navigation

9.1 The demonstration nature of this phase together with its limited scale and duration does not diminish the existence of potential navigational hazards that will be created by the deployment of a device. Navigation safety will be fully considered at the consents stage and developers should note that specific obligations are imposed on the Secretary of State when considering Section 36 consent. Developers are therefore strongly encouraged to undertake discussions with the MCA, Trinity House and navigational stakeholders at an early stage.

10. Decommissioning

10.1 Prior to installation of any device, the DTI will need to be satisfied that appropriate planning and funding arrangements are in place to decommission marine energy devices at the end of their working life.

10.2 The FEPA licence is likely to include conditions that govern the early decommissioning of a device before the end of its working life in the event that it has unacceptable impacts on the environment and it is not possible to successfully modify it to adequately mitigate them.

11. Next Steps

11.1 Next steps are likely to include:

i) Consideration of how more detailed guidance to industry on EIA scoping requirements and key consent conditions can be prepared.
ii) Establishment of key questions to be answered during the demonstration phase and determination of how monitoring can provide the answers.
iii) Development of the research programme.

11.2 The Government's approach so far has been to work closely with industry and stakeholders in determining how the deployment of marine renewables demonstration devices should be managed. A workshop with the industry was held in January 2005 to establish its requirements and a further workshop took place in March 2005 with both industry and key stakeholders. The outcomes of those workshops have informed the contents of this document. Government aims to continue to work on the basis of co-operation and dialogue with interested parties and it is intended that a further workshop be held to consider progress in 2006.

12. Time to Consent

12.1 It is not possible to give a precise indication of the time it will take for a project to gain consent. However, it is reasonable to suggest that, inter alia, the time to consent is related to:

- The choice of site
- The nature of the device
- The number of different impacts (related to site choice and type of device)
- The potential significance of the impacts of the project.
- Quality of the EIA

12.2 It should be clear from this that a developer has the scope to influence the time taken to reach a consent decision and that the time taken is not wholly dependent upon Government departments and statutory advisers.

12.3 As previously stated, the requirement for and scope of both the EIA and consequent monitoring conditions will be proportionate to and adequate for the risks associated with potential adverse impacts of a project which are related to scale, duration and location. This should help reduce the time it takes to complete the consents process which is likely to be shorter than for a commercial scale project.

13. Review of Guidance

13.1 No explicit limits on the number, scale or duration of demonstration projects have been imposed in this policy guidance. As already indicated, it is believed that the current early stage of development of the industry, the finite Government funding available to support projects and the controls available through EIAs, will combine to impose natural constraints on the number of projects, number of devices, generating capacity, spatial extent, location and duration of leases of the demonstration projects that go ahead.

13.2 However, we recognise that the position of the industry and the technologies it uses, along with our understanding of the impacts of the devices, may change over the next few years. We therefore intend to have reviewed the policy on demonstration projects set out in this guidance no later than autumn 2008. Although it is possible that further monitoring conditions may be imposed, the review would not, however, adversely affect demonstrator projects already approved at that point.

13.3 Examples of the type of elements the review may include are:

i) Progress of the industry and adequacy of the policy described in this guidance for the needs of the industry.
ii) Ensuring that the monitoring conditions attached to consents/licences are appropriate, particularly for the purposes of conducting an SEA. It is possible that monitoring conditions may be changed or added to as a result of the review.
iii) Data on impacts of devices.

iv) Broader factors such as the implications of the prospective Marine Bill expected to be introduced to Parliament during the course of the demonstrator phase. It is likely to have an influence on the regulation of a subsequent commercial phase; for example it may include provisions covering marine spatial planning.