In line with The Crown Estate’s strategic objective to support the growth and diversity of the renewable energy portfolio in the UK, we are seeking views from project developers, other companies in the industry and stakeholders about a possible approach to leasing tidal range projects.

To provide a framework for this dialogue, this document asks interested parties to provide information covering a number of areas, including; design, construction, consenting and finance to which we would welcome responses.

Written submissions are invited in letter form, e-mailed to: tidalrange@thecrownestate.co.uk

This document was published on 17th December 2013 and the deadline for responses is 17:00, 7th February 2014.
The Crown Estate

Tidal Range Projects – Market engagement to inform consideration of a leasing process that may be implemented in 2014/15.

1. Introduction

I. Tidal Range Interest

The Crown Estate is seeking to:

- Understand the appetite and interest from developers of tidal range energy projects in the UK which have a reasonable prospect of commencing construction in the near term; and,
- Invite comment on the outline scope for a leasing process that is being considered for English and Welsh territorial waters, excluding the Severn Estuary.

The rapid development of renewable energy capacity is central to the delivery of the EU’s target of a 20% renewable energy contribution by 2020. The Crown Estate in its role as steward of the UK's seabed is keen to understand the extent to which tidal range projects can contribute to this target and complement the UK’s growing portfolio of offshore wind, wave and tidal stream developments.

The Crown Estate is aware of interest from the developers of potential tidal range projects and wishes to explore the readiness of the sector in contemplation of a leasing process. Subject to the conclusions from this market engagement exercise, we will consider commencing a formal competitive leasing process in early 2014, with a view to awarding seabed rights to successful applicants later in the year.

II. What is The Crown Estate

The Crown Estate manages the following assets on behalf of the Crown:

- over half of the foreshore of the United Kingdom (being the area between low water and high water on the coast and tidal waters);
- almost the entirety of the seabed to 12 nautical miles;
- rights to natural resources on the continental shelf (excluding hydrocarbons) under the Continental Shelf Act 1964;
- rights to exploit natural resources to enable generation of electricity from wind, waves and the tides on the continental shelf under the Energy Act 2004 (within the “Renewable Energy Zone”); and
- rights to lease the transportation and storage of natural gas and carbon dioxide on the continental shelf under the Energy Act 2008 (within the “Gas Infrastructure and Storage Zone”).

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1 Near term means the ability to secure consent and move to construction by 31st March 2020.
2 See diagram 1
Under The Crown Estate Act 1961, The Crown Estate is entrusted to manage these assets of national importance with all net revenue being provided to HM Treasury for the benefit of the nation. The assets are managed on a commercial basis in accordance with the principles of good estate management and under a duty to enhance the value of the assets and the return obtained from them. In doing so we engage with partners, statutory authorities and other bodies on a regular basis in order to facilitate the development of a world-class offshore energy capability, which is already bringing significant new inward investment, business and jobs to the UK.

Rights are required from The Crown Estate to install, own and operate renewable energy projects within UK waters and further information on the role of The Crown Estate, in the form of a briefing paper, can be found at; http://www.thecrownestate.co.uk/media/387737/role-in-offshore-renewable-energy.pdf.

III. Purpose of this engagement document:

The purpose of this engagement document is to invite comments from prospective tidal range energy project developers and other interested stakeholders on the outline of a potential leasing process for tidal range projects that is being considered by The Crown Estate. The document also describes the requirements that The Crown Estate would require applicants to meet, and the rights that The Crown Estate may grant. This is to help inform prospective developers’ understanding of what is likely to be required to secure rights, and when they might be ready to seek rights from The Crown Estate. Responses will inform the development of leasing processes that The Crown Estate may undertake in 2014 or thereafter.

2. Approach and Timetable

I. Outline scope of the potential leasing process

The Crown Estate is engaging with Government, prospective market participants and other stakeholders to understand the level of support for and readiness of tidal range projects in UK waters. We are inviting comment on the outline scope of the potential leasing process, which would cover proposals for projects of up to 1GW in installed capacity, to be located in English and Welsh territorial waters, excluding the Severn Estuary.

The Crown Estate would only consider granting rights through any immediate leasing process to projects that have a reasonable prospect of commencing construction in the near term, i.e. prior to the 31 March 2020. However The Crown Estate would not rule out the potential for further processes at a later date and to a different timetable.

II. Rationale for scope

i. Engagement:
   - The Crown Estate is engaging with UK, devolved and regional bodies because the successful development and installation of tidal range projects is likely to require
policy and financial support, may require specific actions by Government bodies, and would involve extensive work with statutory authorities. Engagement with these bodies is intended to help inform them of the approach The Crown Estate is considering, and to ascertain whether there are any specific issues relating to policy, financial support or regulatory regime that should be reflected in the scope and timing of any process that we may undertake.

- Engagement with prospective market participants is intended to inform locational and timing aspects of the approach The Crown Estate might undertake, and give an indication of the level of interest in developing tidal range projects at this time.
- Comment is invited from other stakeholders with an interest in UK tidal range energy projects to help inform the development of any leasing process that we may subsequently take forward.

ii. Spatial Extent:

- **The Crown Estate Seabed:**
  Any potential leasing process would be limited to areas of the seabed and foreshore that form part of The Crown Estate within UK territorial waters\(^3\). The Crown Estate does not have the power to grant rights outside of the UK, and at this time is not aware of any interest in developing tidal range projects beyond territorial waters.

- **Scotland and Northern Ireland:**
  At present The Crown Estate does not intend to run a leasing process in these locations. Unlike in England and Wales, the most recent Strategic Environmental Assessments (SEAs) for Scottish Territorial Waters and offshore Northern Ireland do not cater for tidal range energy projects. However, we welcome comment from organisations with an interest in developing a tidal range energy project proposal in these areas. This will help us understand the market interest in developing projects in these areas, and we will provide a summary of responses to relevant government bodies.

- **The Severn Estuary:**
  The Energy and Climate Change Committee (ECCC) inquiry report; [http://www.publications.parliament.uk/pa/cm201314/cmselect/cmenergy/194/19402.htm](http://www.publications.parliament.uk/pa/cm201314/cmselect/cmenergy/194/19402.htm) issued in June 2013 examined a new proposal for a tidal barrage in the Severn Estuary, and included conclusions that:
    - Further research, data and modelling are needed before [the] environmental impacts [of a Severn Barrage] can be determined with any certainty.
    - The need for compensatory habitat on an unprecedented scale casts doubt on whether [a Severn Barrage] project could achieve compliance with the EU Habitats Directive.
    - The Government should remain open to considering any marine project in the Severn which is able to comply with the requirements of the relevant EU and UK legislation, including a potential barrage scheme.

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\(^3\) i.e. to the 12nautical mile limit.
Harnessing the energy of the Severn would offer significant decarbonisation and energy security benefits.

The ECCC inquiry report recommended:

- Consideration is given to first developing a smaller scale tidal [range] project, in order to build a stronger evidence base for assessing impacts, risks and costs before proceeding with any larger scale scheme.
- The Government should take this into consideration before approving the development of projects in the Severn estuary.

In response to the ECCC report the Government agreed in principle to the direction, whilst recognising that the unique environment in the Severn Estuary means that not all potential schemes provide a comparable evidence base.

Any potential leasing process is likely to exclude the Severn Estuary (as indicated below) to avoid prejudicing further work or compromising any future proposals in relation to any Severn Barrage scheme.
It is envisaged that any process is likely to be open to applications for projects in the wider Bristol Channel area.

iii. Project Generation Capacity:

- We will consider running a leasing process for project proposals of up to 1GW in capacity. This upper limit is intended to accommodate commercial-scale proposals, whilst also recognising the recommendation from the ECCC inquiry report, specifically, developing smaller scale projects first, and the rationale that informed this.

iv. Competition for Sites

- It is expected that project developers will want exclusive rights in relation to their project proposals, to have sufficient confidence to be able to commit the funds necessary to develop their project and secure full funding for any construction phase. Granting exclusivity to a particular location for a defined option period inevitably precludes the possibility of other competing developers using the site. As a consequence, if a leasing process is undertaken, it will be on a competitive basis and The Crown Estate will also only grant rights for proposals that are reasonably likely to progress to a point at which they are fully consented and funded in a timely manner. In practice this is likely to mean projects that have a reasonable prospect of commencing construction prior to the 31 March 2020.

v. Delivery of Construction and Capacity

- Developers that are considering developing proposals that would commence construction beyond 2020 are welcome to respond to this engagement with details of their proposals. This information will support consideration of the need for a leasing process(es) after 2014/15.

III. Timeline

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Market Engagement Exercise.</td>
<td>Dec/Jan 2014</td>
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<tr>
<td>Evaluate market interest and align leasing process.</td>
<td>Jan/Feb 2014</td>
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<tr>
<td>Commence stakeholder engagement and HRA as appropriate.</td>
<td>Spring 2014</td>
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<tr>
<td>Leasing Process</td>
<td>Spring - Summer 2014</td>
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<tr>
<td>Sign option agreements, subject to HRA.</td>
<td>Summer - Autumn 2014</td>
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The above timeline is indicative only and is subject to market interest feedback. The Crown Estate makes no commitment to undertaking this or any process.

Following the conclusion of any leasing process for tidal range projects in 2014/15, market appetite, government support and stakeholder concerns will be evaluated with a view to considering conducting a further process in the coming years.
3. How to participate in this exercise

If your organisation would like to participate in the engagement exercise, please:

- Consider the request for project information below; and
- Respond in letter form (in English), covering the points requested.
- Letters should be e-mailed in PDF or Word format to Peter Lawrence, Tidal Range Project Manager. Hard copies are not required but are acceptable.

Deadline for responses and/or requests for clarification is; 17:00hrs on the 07/02/2014.

| Peter Lawrence – Tidal Range Project Manager | The Crown Estate 16 New Burlington Place London, W1S 2HW | tidalrange@thecrownestate.co.uk Tel: 07786545543 |

4. Request for Project Information

Prospective developers of tidal range energy projects are invited to respond to this market engagement setting out the following:

I. A summary of the project proposal setting out its name, its location (including indicative co-ordinates and shape file (WGS84 or BNG).

II. A brief description of the project including whether it is a barrage, shoreline-connected lagoon, offshore lagoon or dynamic tidal scheme, planned generating capacity, design life, and current consenting status.

III. A plan showing target dates to
   i. secure statutory consents
   ii. enter into a grid connection agreement
   iii. secure revenue/capital support in the form of ROCs / CfDs etc
   iv. obtain full funding and reach a final investment decision
   v. commence construction, and
   vi. complete commissioning (to the extent they are known).

IV. A brief description of the developer (or consortium) and its intended role in the development, construction, operation and long term ownership of the proposed project. Details of the project team and expertise in the design and build of tidal range projects.

V. An outline of the broader benefits that the project could deliver, economically, socially and environmentally.

5. Request for feedback on outline scope of potential leasing process

The Crown Estate would also welcome participation in this engagement exercise by interested stakeholders who have information or interest in tidal range projects and technologies.

Interested organisations are invited to consider the potential scope of a future tidal range leasing process as set out in this paper and provide any relevant feedback, comments or information that may inform how the process is developed.
6. The Crown Estate’s leasing requirements and form of rights

The following sections set out (I) what The Crown Estate is likely to require from applicants during any leasing process and (II) the basic form of rights that may be granted to successful applicants. These sections are intended to help prospective project developers to understand when they might be ready to make an application to The Crown Estate for seabed rights for a tidal range energy project, and the work that is likely to be required to succeed in such an approach. The Crown Estate is also interested to receive any comments on project specific aspects of tidal range development which ought to be reflected in any grant of rights made.

I. Leasing requirements

Applicants will need to demonstrate to The Crown Estate that they have the capacity to safely design, consent, fund, install, operate, maintain, and ultimately remove their proposed tidal range project in a reasonable timeframe. The Crown Estate will also need to evaluate the potential for spatial conflict between the proposal and any existing rights granted by The Crown Estate for other activities in close proximity to it. In practice during the leasing process applicants are likely to need to provide (inter alia) the following:

i. Project development plan (covering environment and geotechnical site surveys, design and consenting). This and the following plans will need to demonstrate a credible prospect of securing consents and funding within the exclusive option period.

ii. Technology & supply chain plan (covering the selection and/or development of impoundment and generating technologies, and how and when the developer would get to the point at which a firm decision could be made regarding these, and a strategy for appointing and managing key supply chain participants).

iii. Communications and external engagement plan (covering government bodies, and other key stakeholders).

iv. Evidence of funding in place to complete development, and funding plan to secure funding for project construction.

v. Financial support routes targeted (i.e. ROCs, CFDs, capital grant, other) including description of how the project will demonstrate compliance with eligibility criteria and timescales.

vi. Evidence of existing experience and expertise, and resourcing plan to fill any gaps in this to enable delivery of project development, technology and funding plans, and strategy to resource post Final Investment Decision (FID) activities.

vii. Outline business case (setting out costs, revenues, returns, capital funding breakdown and assumed costs of capital).

viii. A description of the approach that would be taken to decommissioning and removing the project infrastructure, and restoring the seabed to a safe and proper condition, and an estimate of the costs of this decommissioning, removal and restoration.

ix. Evidence of Health, Safety and Environmental performance, policy & strategy.
II. Basic form of rights

Rights are likely to be granted in two stages, an initial exclusive option by way of agreement for lease (AFL), that will contain within it a pre-agreed form of Lease that may be exercised within a defined option period if certain conditions are met.

The AFL will grant the rights necessary to enable a developer to carry out site and resource investigations (including the installation of temporary resource measurement devices) to support project development. The option period will be set for a reasonable period of time to allow a developer to secure consents, grid connection agreement, and funding commitments, likely to be around 5 years from execution of the AFL. Conditions to be met by a developer before it can exercise a Lease option will include (inter alia):

i. Compliance with the tenant’s obligations under the AFL.
ii. Independent report and certification of the proposed impoundment structure and generating technology.
iii. Approval by The Crown Estate for the project specification and delivery plan
iv. Obtaining a defined list of key project consents.
v. Securing full funding and FID for the project (including any government funding arrangements and guarantees).
vi. Providing acceptable financial security for the tenant’s liabilities under the Lease and evidence of meeting the insurance requirements of the Lease.
vii. Funding in place to enable the safe and timely decommissioning of the project from commencement of construction.

The Lease will be agreed at the point that the AFL is executed, with relevant information relating to the project (dates, spatial information etc) that has been finalised and approved by The Crown Estate during the option period being inserted when the option is exercised. The Lease will contain the rights necessary to install and operate the proposed project.

Rights relating to electricity connection to shore (for offshore projects) will be contained within the AFL and Lease, together with arrangements to be adopted if any connection to shore falls within the OFTO regime.

Fees will be payable to The Crown Estate under the AFL and Lease; details of the level of these fees are not available at this time.

7. Next steps

Following receipt of responses to this engagement and the engagement with Government bodies, consideration will be given to whether or not a leasing process for tidal range energy projects will be carried out during 2014/15, and if so, the form it will take. Any announcement regarding this will be

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4 The Crown Estate will not grant exclusive rights to projects that do not have a reasonable prospect of securing consents and construction funding within this timeframe to avoid developers land-banking an exclusive right that would act to prevent other proposals from being progressed in a more timely manner.
made on The Crown Estate’s website, and those interested in this should check http://www.thecrownestate.co.uk/news-media/news/ for any announcements in due course.

8. Confidentiality

“How this information will be used”:

We will use the information provided to us as part of this engagement exercise to inform our strategy for tidal range leasing in the UK. It is likely that we will share summary information from the engagement with relevant government bodies and other key stakeholders, which will describe the number of potential projects within broad regional areas and the characteristics of these projects and the project developers. In recognition of its commercial sensitivity it is not our intention to disclose information that specifies either the exact location of a proposal, the developers of specific proposals, or the outline target dates for the project.

Stakeholders that choose to respond to this engagement are asked to set out whether they are happy for us to (a) disclose their responses to relevant government bodies, or (b) publically.

In the event that respondents do not wish us to disclose information because they consider it would be commercially prejudicial to their interests, such information should be clearly identified, and the rationale for its disclosure being commercially prejudicial set out.

All respondents should be aware that The Crown Estate is subject to The Freedom of Information Act 2000 (FOIA) and Environmental Information Regulations 2004 (EIR). We will respond to enquiries made under the FOIA and EIR. Respondents therefore acknowledge that the content of their response may be disclosed in full where The Crown Estate received a relevant request for information. Whilst The Crown Estate will seek to engage with the respondent where such a request is received, this cannot be guaranteed and the decision as to the requirement for disclosure is at the sole determination of The Crown Estate.

Those concerned about the disclosure of information submitted in response to this engagement should familiarise themselves with the FOIA and EIR and the relevant codes of practice and how these address communicating with those that have supplied information in relation to its potential disclosure.

For avoidance of doubt, the engagement exercise is not a leasing competition and is unrelated to any existing leasing activities that are underway. Whether companies participate or not in the exercise will have no bearing on The Crown Estate’s decisions to award development rights now or in future.

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