

Y Pwyllgor Amgylchedd a Chynaliadwyedd

Lleoliad:
Ystafell Bwyllgora 3 – Senedd

Dyddiad:
Dydd Mercher, 22 Chwefror 2012

Amser:
09:30

Cynulliad
Cenedlaethol
Cymru

National
Assembly for
Wales



I gael rhagor o wybodaeth, cysylltwch â:

Alun Davidson
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Agenda

1. Cyflwyniad, ymddiheuriadau a dirprwyon

2. Ymchwiliad i bolisi ynni a chynllunio yng Nghymru – Tystiolaeth am ynni'r môr ac ynni'r llanw (09.30 – 11.30) (Tudalennau 1 – 18) 09.30 – 10.30

Dr Miles Willis, Rheolwr Prosiect, Sefydliad Ymchwil Carbon Isel
E&S(4)-08-12 papur 1

Tonia Forsyth, Rheolwr Rhwydwaith, Marine Energy Pembrokeshire
E&S(4)-08-12 papur 2

10.30 – 11.30

Dr Dickon Howell, Pennaeth Trwyddedu Morol, Marine Management Organisation
E&S(4)-08-12 papur 3

Dr David Tudor, Uwch Reolwr Polisi a Chynllunio Morol, Ystad y Goron
Toby Gethin, Ymgynghorydd Caniatáu, Ystad y Goron
E&S(4)-08-12 papur 4

3. Cynnig o dan Reol Sefydlog 17.42(vi) i benderfynu gwahardd y cyhoedd o'r cyfarfod ar gyfer eitem 4 (11.30)

Sesiwn breifat

4. Ymchwiliad i'r diwygiadau arfaethedig i'r Polisi Pysgodfeydd Cyffredin – Llythyron drafft y Grŵp Gorchwyl a Gorffen ar y Polisi Pysgodfeydd Cyffredin (11.30 – 11.45)

5. Papurau i'w nodi (Tudalennau 19 – 20)
Cofnodion y cyfarfod a gynhaliwyd ar 1 Chwefror
E&S(4)-06-12 cofnodion



Environment and Sustainability Committee

E&S(4)-08-12 paper 1

Inquiry into Energy Policy and Planning in Wales – Evidence from Low Carbon Research Institute Marine

Executive Summary

- Wales has the resource, the grid, the ports, the **science**, the supply chain, the workforce and the political will to enable the marine renewable energy sector to flourish.
- A marine energy sector will not be built overnight in Wales. It is a long-term investment and is considered to be high risk because the sector is still in the early stages of technological development. However, the overall benefits to the Welsh economy could be substantial.
- LCRI Marine considers the term "Marine and tidal energy" to be confusing. "Marine Energy" covers wave, tidal stream and tidal range technologies.
- LCRI Marine is calling for the formation of **Marine Energy Wales** – a high level strategic group that will encompass all the initiatives currently underway throughout Wales for maximum impact.
- LCRI Marine believes that this must be done by working with UK Government, DECC in particular, as they have decision making authority over projects in Welsh waters.
- There should be meaningful dialogue with The Crown Estate as the landlord for the Welsh seabed.
- The short term aim of Marine Energy Wales should be joining up all the expertise in Wales with a medium to longer term view of creating a Welsh Marine Energy Park. The Welsh Marine Energy Park should aim to **bring the first commercial projects in English and Welsh waters to Wales.**

Introduction to the Low Carbon Research Institute

The Low Carbon Research Institute (LCRI) was set up to unite and promote energy research in Wales to help deliver a low carbon future. The multidisciplinary LCRI aims to support the energy sector in Wales, the UK and globally, to develop low carbon generation, storage, distribution and end use technologies, and to offer policy advice.

The Higher Education Funding Council For Wales (HEFCW) granted £5.1 million to develop the LCRI for 5 years from April 2008. LCRI's research is also supported by contracts from the Research Councils, Industry and Government.

In 2010 LCRI secured £15 million from the Welsh European Funding Office, a contribution to a £34 million programme to enable Wales and its industry partners to lead the way in research to cut carbon emissions, as part of the European Research Development Fund's Convergence, Regional Competitiveness and Employment programmes.

The marine energy research activities of the LCRI are managed by the Marine Energy Research Group (MERG) based at Swansea University, and involve six academic institutes, together with industrial, governmental and environmental groups from around the Welsh coast. The current programme of strategic research involves 45 scientists (engineers, oceanographers, computer modellers, mathematicians, marine biologists, and environmentalists) from around the Welsh academic institutions. The organisation of the research work has been specifically designed to answer environmental and engineering concerns and to supply stakeholders with the information required to reduce risk and instil confidence, which will ultimately lead to investment and jobs in Wales. LCRI Marine aims to:

- supply the sector with focussed, independent, multi-disciplinary research that will underpin the growth of the industry;
- develop the knowledge-base around the Welsh coast that will incubate fundamental and industrial research in partnership with UK and Europe; and
- build academic capability that will continue to offer assistance and guidance to the marine energy sector in future years.

The majority of projects will finish in March 2013 and the Low Carbon ambitions of Wales may not be achievable without the continuation of the science base that has been built up over the last four years.

Terminology

The invitation from the Environment and Sustainability Committee refers to the panel discussion topic as "marine and tidal energy". LCRI Marine considers that this terminology is unclear and can lead to confusion. The term "Marine Energy" covers all forms of "wet" devices and is usually thought to include wave, tidal stream and tidal range technologies as well as ocean thermal and osmotic potential (the latter two are not applicable to Welsh waters). It is not clear, therefore, whether the term "tidal energy" refers to tidal stream or tidal range.

Marine Energy in Wales

Marine energy is a source of low-carbon renewable energy and the extensive coastline provides Wales with significant marine energy resource. The Welsh Government has proposed ambitious targets for producing up to 14TWhrs per year of electricity from marine-based technologies (barrages, tidal stream, wave, impoundments and lagoons) by 2030. With no marine energy devices currently operating off the Welsh coast the challenge is clear and significant.

There are, however, plans to start installing devices in Welsh waters. Tidal Energy Ltd has consent to install their 1.2MW DeltaStream tidal stream device in Ramsey Sound, Pembrokeshire in late 2012. Marine Current Turbines are submitting plans for a 10MW array off the NW coast of Anglesey. Wave energy developers Wavedragon and Marine Energy are looking to site commercial devices off the SW of Wales. LCRI Marine has also been contacted by developers looking to exploit our tidal range resource using lagoons and impoundments. The feasibility of harnessing the tidal range in the Severn Estuary still continues, with strong interest from the private sector.

The Marine Renewable Energy Strategic Framework (MRESF) includes a GIS tool and has looked at a wide range of constraints to marine energy deployment ranging from military interests in Welsh waters to marine ecology. Combined with resource information, this tool suggests extraction scenarios ranging from 1.5GW to 6.4GW of installed capacity, depending on the level of constraint considered acceptable for deployment.

A Way Forward

To make Wales as attractive to investors and marine energy developers as other regions, steps must be taken to facilitate the deployment of devices. The provision of freely accessible data on key Welsh resource areas would provide confidence to investors and marine energy developers which, in turn would accelerate investment in marine renewables in Wales. Wave and current data collection will reduce uncertainty in resource which will de-risk investment. Associated environmental data may be collected which could also be used to reduce consenting costs and hence make strategic Welsh deployment locations more attractive.

It is anticipated that these data collection activities will allow potential extension into partially or fully consented sea-bed deployment areas which could be leased directly to developers. In conjunction with other projects, such as the Marine Renewable Energy Strategic Framework and the Infrastructure Study being currently undertaken, this work has the potential to identify areas where investment in support services could enhance Wales's reputation as a prime location for marine renewable energy extraction. It is suggested that this can be achieved through the following stages:

1. Identify suitable areas for wave and tidal energy deployment in Wales using existing data;
2. Determine data requirements and priorities for both wave and tidal developers; and
3. Develop a work plan for short and medium to long-term data collection and provide indicative costs for survey and monitoring.

A Unified Approach to a Marine Energy Strategy in Wales

There are a number of existing initiatives around Wales which have the overall aim of de-risking the marine energy sector and increasing the attractiveness of Wales within the marine energy sector. These initiatives include:

- Marine Energy Pembrokeshire;
- Anglesey Energy Isle;
- LCRI Marine;
- SEACAMS;
- MAREN; and
- OREIN.

From a developer's perspective Wales is giving out a confused message. There is no clear route to getting assistance/information about what we have to offer. These initiatives appear to be working to the same overall aim, however they need to be aligned centrally in order to fully exploit the potential.

Members of LCRI Marine set up the Marine Energy Task Group for Wales back in 2008. This group comprised of senior academics, Welsh Government, developers, utility companies and NGO's. Although the partnerships continue, it has not been formally active since 2010.

LCRI Marine advocates that Wales sends out a clear message to the emerging marine energy sector to enable Wales to increase its profile at the UK, European and Global marketplace. An over-arching group needs to be established to ensure existing and future programs are all working in unison. This group should be called **Marine Energy Wales**. It should set research agendas and pave the route to commercialisation. Marine Energy Wales should include representatives from industry, government, the science base and local delivery organisations. For the greatest impact we propose that this should be industry-led. It should also have a central marketing strategy that is used throughout Wales.

Site Development

Marine energy site development activities are currently being undertaken throughout Wales. The opportunities in Wales are unique in that our resource includes wave, tidal stream, barrages and lagoons, each in various locations on the coast.

We believe that the initial aims of Marine Energy Wales should be concrete and clear. They should be ambitious but achievable and have a 5–10 year horizon for initial activities. The aims should be to generate megawatts from the water and to ground key industrial organisations in Wales.

The recently published DECC marine energy roadmap sets out the support mechanisms and infrastructure available to industry. From the roadmap, a clear gap can be seen in the ocean infrastructure. Devices have a clear technology development route from scale tests at NAREC to full scale open sea at EMEC. Wave devices can be installed in very small demo arrays at WaveHub, but then beyond this there is no provision with shared infrastructure resources.

Marine Energy Wales stage 1 should be targeted at the early commercial arrays (10–30MW each), with the aim of installing the first 100MW in Welsh waters. The locations for stage 1 have already been considered by developers and are the North West of Anglesey and the St David's area of Pembrokeshire. The Anglesey site is exclusively tidal stream, while it is considered potentially feasible to combine wave and tidal stream at St David's. The first 100MW would not fill the capacity of either site.

The shared infrastructure includes:

- Data collection as discussed above;
- A seabed lease from Crown Estate;

- Environmental and other permits to deploy (with device specific elements to be added later);
- Onshore planning approval for shore stations and grid reinforcement; and
- Carefully planned and appropriately timed physical assets.

For Wales and the UK as a whole, the prospect of a new marine renewable energy industry has a multitude of advantages, beyond meeting renewable energy or carbon reduction targets. Domestically sourced energy will help alleviate energy security concerns. The creation of the industry will promote economic development as well as the potential to export energy conversion devices and expertise. Lessons can be drawn from the development of the wind industry, where the countries with the greatest domestic support have prevailed to export their devices internationally, where others, including the UK, have forgone their own industry in favour of importing. Political will is essential for barriers to be removed, investment to be encouraged and devices to be deployed, if Wales is to establish itself as the marine energy market leader.

Miles Willis, Ian Masters

LCRI Marine

14th February 2012



The Clerk
Environment and Sustainability Committee
National Assembly for Wales
Cardiff CF99 1NA
Sent by email: E&S.comm@wales.gov.uk

22nd September 2011

The Clerk,

RE - The National Assembly for Wales' Environment and Sustainability Committee - Inquiry into energy policy and planning in Wales.

Marine Energy Pembrokeshire welcomes the opportunity to comment on the Committee's inquiry into energy policy and planning in Wales. Marine Energy Pembrokeshire comprises private, public and third sector individuals and organisations who are committed to working together, and can contribute to, the achievement of its aim to develop Pembrokeshire as a centre of excellence in Marine Renewable Energy. Members of the Group are self-nominated according to their knowledge, influence, skills and enthusiasm to progress this agenda in Pembrokeshire and their willingness to work together collectively for the benefit of all.

Working Group membership includes individuals from Welsh Government, the Marine Energy Task Group for Wales, Pembrokeshire County Council, Countryside Council for Wales (CCW), Milford Haven Port Authority, Pembrokeshire Coast National Park Authority (PCNPA), The Crown Estate, Tidal Energy Limited, E-ON, Marine Energy Limited, Wave Dragon, Far Offshore Renewables, Ledwoods Engineering, Halcrow, relevant academic projects and the Pembrokeshire Coastal Forum. **PLEASE NOTE** Whilst Welsh Government, the Crown Estate, CCW and the PCNPA are integral members of the working group the comments raised within this document **do not contain their input or viewpoint as MEP members.**

Marine Renewable Energy presents enormous potential opportunities for creating considerable value to the economy of Pembrokeshire and Wales. The Pembrokeshire coast has significant wave and tidal stream potential, the Milford Haven waterway is ideally suited for infrastructural support with excellent port facilities and road links and grid connections are good in comparison to other UK locations. This emerging industry has the ability to create a new and innovative indigenous sector for the area. Building on the vast knowledge, infrastructure and skills already present due to the existing energy industry, Marine Renewable Energy could increase and diversify higher value added economic activities, raise skill levels and sustain and strengthen local communities.

What are the implications for Wales if responsibility for consenting major onshore and offshore energy infrastructure projects remains a matter that is reserved by the UK Government?

Developers feel that the natural resource and relevant infrastructure required determines location desirability irrelevant of the nationality of a consenting body. A consenting body that is transparent and well resourced in terms of time, expertise and ability to deal with large or small project submission is essential to avoid project delay and reduced confidence.

Local knowledge and a system that considers proportionality is required where small test devices and temporary projects should not have to adhere to the same lengthy, costly consenting processes as larger scale projects. At present a small scale developer may face the same costs, timescales and burden of proof as a £1 billion pound offshore wind farm.

Large projects may need a UK wide strategic approach considering network infrastructure which requires integrated working between UK and Welsh Government. If consenting for major projects remains with the UK Government then it is essential that there is a close working relationship with devolved agencies considering local “patch” knowledge.

How does this affect achievement of the Welsh Government’s aspirations for various forms of renewable and low carbon energy as set out in the Energy Policy Statement?

Welsh Governments aspirations of 8KWh/day/person from wave and tidal resources by 2025 are possible but installation needs to start in the very near future. If 4GW of wave and tidal devices are installed by 2025, this equates to an average of 22MW installed every month from January 2011. Any under-resourcing of consenting activities will delay projects and thus reduce developer confidence, the rate of deployment and the attractiveness of Wales to the marine renewable sector. To a developer the consenting process is high risk because of undefined timescales and cost. A clarification on the consenting process would lower project risks particularly in the light of proportionality.

The private sector will invest in projects if there is a business case. Government can assist with this by incentivising and acting as leaders to encourage utilisation of Welsh resources. The unbalanced market for ROCs in the UK means that the majority of development is being undertaken in Scotland. We urge Welsh Government to continue to work with DECC to ensure that during the review of ROC banding Wales is on a parity with Scotland and that Wave and Tidal attract 5 ROCS per unit.

The role of the different consenting agencies, how they inter-relate and how the current system could be improved, both with and without further devolution (Infrastructure Planning Commission, Planning Inspectorate, Local Planning Authorities, National Parks, Welsh Government, Marine Management Organisation, Environment Agency).

The consenting process requires inclusion, transparency, responsiveness and timely decisions based on sound evidence. It is unclear at present how the Marine and Coastal Access Act 2009 and Marine Spatial Planning will streamline the offshore process but the disjointed approach to consenting at present is not an attractive proposition for the developing marine renewable private sector. How future onshore and offshore consenting compliments and impacts upon marine renewable projects will be of interest.

The potential contribution and likelihood that different types of renewable and low carbon energy (offshore wind, tidal, onshore wind, hydro-power, nuclear, bio-energy/waste, micro-generation, community energy projects) will be capable of delivering the Welsh Government’s aspirations for energy generation as set out in A Low Carbon Revolution – Energy Policy Statement and the UK Renewable Energy Roadmap.

Different areas of Wales have different contributions to make and there are different issues to address, depending on the nature of generation and the nature of receptors. A spatial approach to energy clusters/zones which considers infrastructure, resource, skills, supply chain and the local environment is required. It is important that policy and targets are reviewed in a timely manner accounting for developing and emerging technologies.

We believe the potential for Wales and in particular Pembrokeshire to assist with Welsh and UK aspirations is hugely significant. The wind, wave and tidal resource combined with port facilities, transferable skills, grid, research, on-shore support infrastructure and supply chain has seen a number of private sector companies choose the region as their area of choice for device deployment even with Scotland and the South West providing an easier pathway.

We will see Wales' first tidal energy turbine come on stream in 2012 and with the necessary investment and support the region could compete with Scotland and the South West and see Wales become world leaders in marine renewable energy. If this is to be realised then action is required in the very short term. Pembrokeshire should be included in UK plans for the proposed offshore renewable energy technology and innovation centre and Marine Energy Parks.

The potential role of other forms of energy production in Wales e.g. existing fossil fuel energy generation, proposed nuclear generation and newer technologies such as coal-bed methane and shale gas.

While we realise the importance of existing fossil fuel energy generation in the area, the economic benefit it brings and the potential for the future skills transfer we are focussing on the longer term benefit of marine renewable energy.

The transport issues relating to wind turbines and other forms of renewable energy including their impact on roads, traffic and tourism.

Many of the traffic issues relating to onshore wind will be avoided by the marine renewable energy sector as port facilities and sea freight could be used to supply the servicing and deployment chain. Wales and in particular Pembrokeshire have some of the best port facilities in Europe. These will become increasingly important as the sector develops.

To our knowledge Marine Energy Pembrokeshire is a unique combination of members which includes the private sector working together to promote the region and marine energy as the long term sustainable future and of our energy generation. We promote this integrated working ethos and welcome any clarification of the points made in our response. www.marineenergypembrokeshire.co.uk

Environment and Sustainability Committee

E&S(4)–08–12 paper 3

Inquiry into Energy Policy and Planning in Wales – Evidence from the Marine Management Organisation



1. Introduction to the Marine Management Organisation

The Marine Management Organisation is an executive non-departmental public body (NDPB) established and given powers under the Marine and Coastal Access Act 2009 (MACAA 2009).

The MMO incorporated the work of the Marine and Fisheries Agency (MFA) and acquired several important new roles, principally marine-related powers and specific functions previously associated with the Department of Energy and Climate Change (DECC) and the Department for Transport (DfT).

2. Overview of responsibilities

- implementing a new marine planning system designed to integrate social requirements, economic potential and environmental imperatives, which moves England's seas towards a system of plan led regulation
- implementing a new marine licensing regime that is easier for customers to use with clearer, simpler and quicker licensing decisions
- managing UK fishing fleet capacity and UK fisheries quotas
- working with the Statutory Nature Conservation Bodies to create and manage a network of marine protected areas (marine conservation zones and European marine sites) designed to preserve vulnerable habitats and species in UK marine waters
- responding to marine emergencies alongside other agencies

3. The MMO's role in Welsh waters

The MMO has powers to issue certain consents within Welsh inshore waters under both the Electricity Act 1989 (as extended by the Energy Act 2004) and Harbours Act 1964. A summary is provided below. A summary of our powers under s66 of MACAA 2009 is also provided.

Prior to the establishment of the MMO, consent under the Electricity Act 1989 was administered by DECC. Similarly, DfT were responsible for Harbour Orders issued under the Harbour Act 1964. The transfer of the relevant marine consents under the Electricity Act 1989 (and Energy Act 2004) and Harbours Act 1964 from DECC and DfT, respectively to the MMO helps to streamline the consenting process thereby providing a more integrated service to customers.

Electricity Act 1989 and Energy Act 2004

The Energy Act 2004 extends Electricity Act consenting into the Renewable Energy Zone and brings smaller projects (>1MW) in line with EIA regulations as well as providing powers to extinguish rights of navigation and providing for statutory safety zones to be established around electricity generating installations. As such, electricity installations that generate more than 1MW will normally require consent under the Electricity Act, within Welsh in-shore waters this is presently administered by the MMO.

In summary:

- For installations that are 100MW and under the MMO will issue an Electricity Act consent and Welsh Ministers issue a Marine Licence
- For installations over 100MW the IPC will issue consent under Planning Act and Welsh Ministers will issue a Marine Licence

Harbours Act 1964

Harbour Orders are a type of statutory instrument made under the Harbours Act 1964. They are used to create or amend legislation governing harbour authorities. Since 1 April 2010¹, the MMO has been responsible for processing and determining new harbour order applications for all harbours in England and for all non-fishery harbours in Wales².

The procedure for considering harbour order applications is set out in the Harbours Act 1964. It begins with notices placed in the London Gazette and local press advertising a period of 42 days during which objections and representations may be made. During this time the MMO will also consult with appropriate bodies. The bodies consulted vary depending on the case but would include the Welsh Government, amongst others.

¹ see The Harbours Act 1964 (Delegation of Functions) Order 2010

² the Sea Fish Industry Act 1951 lists fishery harbours in England and Wales

In determining an application the MMO will make decisions in accordance with relevant policy, for example, Modernising Trust Ports. The MMO may call a local public inquiry or hearing to inform its decision where there are outstanding objections.

Harbour orders can also be subject to environmental impact assessment³ and assessment under the Habitats Regulations⁴. In cases where there are associated applications made to other bodies, for example, applications to the Welsh Government for marine licences under the Marine and Coastal Access Act 2009, the MMO will work with those bodies to streamline the process where possible.

The Marine and Coastal Access Act 2009

The Marine and Coastal Access Act introduced a new framework for managing the demands we put on our seas. This includes a new marine licensing, planning system and marine conservation powers.

The integration proposed will provide benefits from a streamlined delivery and economies of scale that could not be realised by placing those functions in separate organisations.

4. Current working arrangements with the Welsh Government

There are no formal working arrangements in place (other than provisions made under the Marine Works Regulations 2007 as amended) but the WG and MMO have a close working relationship based on the need to issue multiple consents for the same project and also for cases that have cross-border implications.

5. Case study

Marine Current Turbines Ltd (MCT) is seeking to install a marine current turbine generator array off West Anglesey. The proposed project comprises of up to 7 twin rotor machines with two 18–20m diameter rotors mounted on either side of an axial cross arm. In addition to the offshore device infrastructure including inter-array and export cables, ancillary onshore works and works in the intertidal zone, are required to connect the array to the electricity distribution network.

The MMO is currently working with counterparts in Welsh Government (WG), Marine Consents Unit to ensure a joined-up licensing process. The MMO will carry out responsible functions for s36 and the WG will issue the Marine Licence (if granted). The MMO and WG regularly update each other on progress with the application.

³ under the Harbour Works (Environmental Impact Assessment) Regulations 1999

⁴ The Conservation of Habitats and Species Regulations 2010

6. Conclusion

We hope our comments are of assistance to the committee in its investigations. We are very willing to provide additional information on any points within this submission. All of this response can be included in the public domain, and we are happy to provide a link to the inquiry from our website if requested.

Environment and Sustainability Committee

E&S(4)-08-12 paper 4

Inquiry into Energy Policy and Planning in Wales – Evidence from The Crown Estate

David Tudor

Senior Policy & Planning Manager

23 September 2011



Executive Summary

The Crown Estate welcomes the opportunity to provide written evidence for the National Assembly for Wales' Environment and Sustainability Committee inquiry into energy policy and planning in Wales.

As outlined in the Terms of Reference for written evidence, we set out our view and hope this proves to be useful information of relevance to the inquiry. This is elaborated in more detail below but the summary points are:

- The Crown Estate is commenting from its position as a rural landowner in Wales, with an estate of over 27,000 hectares most of which is Common land upon which we are working with developers to deliver renewable energy through a variety of technologies, such as onshore wind, solar and hydropower, and as steward of the UK marine estate which includes over half of the UK's foreshore and vast majority of the seabed out to territorial 12 nautical mile limit and vested rights for the development of renewable energy in the UK Continental Shelf.
- The Crown Estate works with the grain of UK and Welsh Governments' policies and we help to deliver many of the key aspirations set out in *A Low Carbon Revolution – The Welsh Assembly Government Energy Policy Statement* (March 2010) and the *Ministerial Policy Statement on Marine Energy in Wales* (July 2009).
- The Crown Estate have and will continue to work with and support the relevant consenting body and statutory advisors with regards to major onshore and offshore energy infrastructure projects.
- If any changes are made to the consenting regime for major onshore and offshore energy infrastructure projects in Wales then it is essential that any potential uncertainty is reduced; any real or perceived uncertainty felt by developers could discourage investment within Wales.

Section 1: The Crown Estate's remit and responsibilities

The Crown Estate's role is to maintain and enhance the value of the hereditary estates of the Crown, on behalf of the nation. The Crown Estate manages an estate worth £7 billion and consists of an Urban, Rural, Marine and Windsor estate. The profit earned from our activities is paid to the Treasury, and over the last 10 years this has amounted to nearly £2 billion; whilst the capital value of the portfolio has increased by over £3 billion during the same period.

The Crown Estate's portfolio in Wales is significant and diverse. Our rural estate extends to over 27,000 hectares in Wales, including substantial areas of common land, agricultural holdings and a range of mineral interests. Our marine estate takes in around 65 percent of the foreshore around Wales and the seabed out to 12 nautical miles. In managing our estates in Wales, we aim to work in partnership with government and local communities for mutual benefit. We have built good working relationships with the Welsh Government and the National Assembly for Wales, local councils, communities and our own customers.

In carrying out our duties, under the core values of commercialism, integrity and stewardship and in line with government policy to deliver sustainable and secure energy, The Crown Estate aims to realise the renewable and low carbon energy potential of its estates. We are working to develop new energy projects across the UK through several programmes of work, and across several renewable and low carbon technologies including: offshore wind, wave and tidal, carbon capture and storage, natural gas storage, onshore wind, hydro, geothermal, and solar (some but not all of which relate to our Welsh estates). See Section 3 for more detail on our low carbon portfolio.

The Crown Estate's permission, in the form of a lease or licence, is required for the placement of structures or cables on the seabed; this includes offshore wind farms and their ancillary cables and other marine facilities. In addition to this, by virtue of the Energy Act 2004 (and Energy Act 2008) it has the rights vested in it for the development of renewable energy within the Renewable Energy Zone and to the UK Continental Shelf for development of natural gas and carbon dioxide storage.

Through our Marine Communities Fund we support a range of practical projects that contribute to good stewardship around the UK coast. In Wales our projects range from supporting sustainable boating in the River Teifi, to investment in Conwy Bird Reserve.

The Crown Estate's interests in land-based and offshore renewables allow us to make a general statement on the initial questions set out in the Terms of Reference as shown below. Consideration of points in relation to the petition about Welsh Government planning guidance is provided in section 3.

Section2: Inquiry Questions

- *What are the implications for Wales if responsibility for consenting major onshore and offshore energy infrastructure projects remains a matter that is reserved by the UK Government?*
- *How does this affect the achievement of the Welsh Government's aspirations for various forms of renewable and low carbon energy as set out in the Energy Policy Statement?*
- *How does this affect the delivery of the Welsh Government's target of a 3 percent reduction in Green House Gas emissions per annum from 2011?*
- *What will be the impact if consenting decisions on major infrastructure projects and associated development are not all taken in accordance with Welsh planning policy?*

The Crown Estate works with the grain of UK and Welsh Governments' policies and we help to deliver many of the key aspirations set out in *A Low Carbon Revolution -The Welsh Assembly Government Energy Policy Statement* (March 2010) and the *Ministerial Policy Statement on Marine Energy in Wales* (July 2009). The Crown Estate have and will continue to work with and support the relevant consenting body and statutory advisors with regards to major onshore and offshore energy infrastructure projects.

We believe it is important to consider the implications of changing the regime for consenting major onshore and offshore energy infrastructure projects in Wales. Any changes which are made need to be done swiftly, with a clear timetable, and with an effective system in place, otherwise there is a significant risk to the build out of renewable / low carbon energy projects to help meet binding renewable energy targets. If changes are to be made then it is essential that any potential uncertainty is reduced; any real or perceived uncertainty felt by developers could discourage investment within Wales.

Section 3: Response to Planning Guidance Points

The following feedback is provided in response to the planning guidance points posed in the consultation:

The relationship between the UK Government’s Energy National Policy Statements and Welsh national and local planning policies (including Planning Policy Wales, Technical Advice Note 8 and Local Development Plans) and whether or not these policies can achieve the Welsh Government’s aspirations, including whether or not a formal review of TAN 8 is now required:

The Crown Estate has and will continue to work within the appropriate planning policies and with the relevant consenting authorities. With regards to our onshore portfolio, we would like to highlight that TAN 8 was useful in enabling the strategic planning of onshore wind sites, and focused our interactions with onshore wind project developers on our land holdings within the identified Strategic Search Areas. As detailed below, this has resulted in three potential onshore wind projects coming forward within our rural estate in Wales.

The potential contribution and likelihood that different types of renewable and low carbon energy (offshore wind, tidal, onshore wind, hydro-power, nuclear, bio-energy/waste, micro-generation, community energy projects) will be capable of delivering the Welsh Government’s aspirations for energy generation as set out in A Low Carbon Revolution – Energy Policy Statement and the UK Renewable Energy Roadmap.

We cannot comment on the contribution of different renewable and low carbon energy technologies to the UK energy mix and contributions to Welsh Government’s aspirations. However, we have provided a summary of our low carbon/renewable energy portfolio in Wales and offshore to inform this debate, as follows:

Offshore Wind:

A major area of our work across the UK has been offshore wind energy. The Welsh Government has made a strong commitment to tackling climate change through diversified renewable energy generation, and this is an area where we aim to play a key role as enablers. The progress of zone leasing and project development around the coastline of Wales can be summarised as follows:

| Zone / Site Name (Leasing Round) | Capacity (MW) | Status | Comments |
|---|----------------------|----------------------------|--|
| North Hoyle (Round 1) | 60 | Operational | Completed in 2003. |
| Rhyl Flats (Round 1) | 90 | Operational | Completed in 2009. |
| Gwynt y Môr (Round 2) | 576 | Planning approved | Consented. Construction work has begun |
| Atlantic Array (Round 3) | 1,500 | Planning | This Round 3 zone is partially in Welsh waters |
| Irish Sea (Round 3) | 4,200 | Zone Appraisal (shortly to | This Round 3 zone is partially in Welsh waters |

| Zone / Site Name (Leasing Round) | Capacity (MW) | Status | Comments |
|-------------------------------------|------------------|--------------------|----------|
| | | enter planning) | |

During 2010/11 we continued to progress our Round 3 programme for offshore wind energy deployment. There are nine wind zones around the entire UK coastline, two of which are in waters close to Wales: the Irish Sea Zone was awarded to Centrica Renewable Investments Ltd, and the zone in the Bristol Channel is the responsibility of Bristol Channel Zone Ltd (100% owned by RWE npower). The Crown Estate has committed to remove as many of the risks as possible which could impede the delivery of these strategically important developments.

In March 2011 The Crown Estate and the Welsh Government signed a Letter of Intent to work together to support the development of the marine renewable energy industry in Wales. This agreement was first of its kind with any devolved administration. The work looks at the whole supply chain for offshore renewable energy, but with a particular focus on ports and harbours. We are talking to offshore energy developers and other marine energy stakeholders about their requirements and the challenges they face. Our shared aim is to enable Welsh ports to realise their potential; bringing jobs and new skills, and making an important contribution to the Welsh economy as well as climate change targets for Wales and the UK as a whole.

Wave and Tidal Energy:

At present, the only lease for a marine energy device in Welsh waters is for the DeltaStream demonstrator; which is to be located in Ramsey Sound off Pembrokeshire, and developed by Tidal Energy Limited.

We are continuing to lease demonstration projects of up to 10 MW capacity around UK territorial waters, with six-monthly application windows.

Onshore Wind:

In response to the Welsh Government's guidance for the development of onshore wind farms (TAN 8), The Crown Estate has entered into option agreements with three wind farm developers, who have applied for planning permission to build wind farms. If successful The Crown Estate will grant leases to the developers.

| Site Name | Number of Turbines and Capacity | Status | Anticipated Timescale |
|-------------|---------------------------------|---------------------------------|--|
| Llanllwni | 15 turbines (34.5MW) | Planning application submitted. | Grid offer received for connection in the fourth quarter of 2014. Potential to be completed by 2015. |
| Llys Dymper | 11 turbines (40.6 MW) | Planning application submitted. | Grid connection could be made either in 2013 or 2015 depending on whether a new line is brought in from the North. Potential to be completed by 2015/16. |

| Site Name | Number of Turbines and Capacity | Status | Anticipated Timescale |
|-----------|---------------------------------|---|---|
| Cilfaesty | 4 turbines (approx 12-18MW) | Exhibition with commoners to be held before year end. | Planning application pending (awaiting outcome of other Mid-Wales wind projects). Grid connection not available until 2015. |

Hydro-power and geothermal technology:

Within our rural estate, we are currently investigating Geothermal and Hydro schemes. All are in early stages of development.

Conclusion

We trust that you will find these comments constructive. We would be very willing to provide additional information on any of the points we have raised above and be very pleased to discuss these matters with you further. We are ready to engage in further discussions on these and other points relevant to our ownership or which our expertise may be brought to bear. All of this response may be put into the public domain and there is no part of it that should be treated as confidential.

Y Pwyllgor Amgylchedd a Chynaliadwyedd

Lleoliad: **Ystafell Bwyllgora 3 – Senedd**

Dyddiad: **Dydd Mercher, 1 Chwefror 2012**

Amser: **09:50 – 11:35**

Cynulliad
Cenedlaethol
Cymru

National
Assembly for
Wales



Gellir gwyllo'r cyfarfod ar Senedd TV yn:

http://www.senedd.tv/archiveplayer.jsf?v=cy_400000_01_02_2012&t=0&l=cy

Cofnodion Cryno:

Aelodau'r Cynulliad:

Dafydd Elis-Thomas (Cadeirydd)
Mick Antoniw
Rebecca Evans
Russell George
Vaughan Gething
Julie James
William Powell
David Rees
Antoinette Sandbach

Tystion:

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Matthew Quinn, Llywodraeth Cymru
Dave Clarke, Llywodraeth Cymru
Nigel Reader, Ymgynghorydd

Staff y Pwyllgor:

Alun Davidson (Clerc)
Catherine Hunt (Dirprwy Clerc)
Nia Seaton (Ymchwilydd)

1. Cyflwyniad, ymddiheuriadau a dirprwyon

1.1 Cafwyd ymddiheuriadau gan Llyr Huws Gruffydd. Nid oedd dirprwyon.

2. Ymchwiliad i'r achos busnes dros un corff amgylcheddol – tystiolaeth gan Weinidog yr Amgylchedd a Datblygu Cynaliadwy

2.1 Atebodd Gweinidog yr Amgylchedd a Chynaliadwyedd a'i swyddogion gwestiynau gan Aelodau'r Cynulliad am yr achos busnes dros un corff amgylcheddol.

2.2 Cytunodd y Pwyllgor i ysgrifennu at y Gweinidog i geisio ymateb ysgrifenedig i'r cwestiynau na chawsant eu gofyn yn ystod y sesiwn dystiolaeth.

3. Papurau i'w nodi

3.1 Cytunodd y Pwyllgor i gynnwys safonau lles anifeiliaid yn y diwydiant ffermio cŵn bach yn ei raglen waith, er mwyn ystyried y mater ymhellach.

3.1 Ymchwiliad i'r achos busnes dros un corff amgylcheddol – Tystiolaeth ysgrifenedig gan Gydffederasiwn Diwydiannau Coedwigoedd (Confor)

3.2 Ymchwiliad i'r achos busnes dros un corff amgylcheddol – Tystiolaeth ysgrifenedig gan Blanhigfeydd Maelor Cyf

3.3 Llythyr gan Gadeirydd y Pwyllgor Deisebau – P-04-339 Gorfodi Safonau Lles Anifeiliaid yn y Diwydiant Ffermio Cwn Bach yn Ne-Orllewin Cymru

4. Cynnig o dan Reol Sefydlog 17.42(vi) i benderfynu gwahardd y cyhoedd o'r cyfarfod ar gyfer eitem 5

4.1 Cytunodd y Pwyllgor ar y cynnig i wahardd y cyhoedd o'r cyfarfod ar gyfer eitem 5.

5. Ymchwiliad i'r achos busnes dros un corff amgylcheddol – trafod y dystiolaeth

5.1 Bu'r Pwyllgor yn trafod y dystiolaeth a ddaeth i law fel rhan o'r ymchwiliad i'r achos busnes dros un corff amgylcheddol.

TRAWSGRIFIAD

Gweld [trawsgrifiad o'r cyfarfod](#).