
Cynulliad Cenedlaethol Cymru
Y Pwyllgor Menter a Busnes

National Assembly for Wales
Enterprise and Business Committee

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Ymchwiliad i Botensial yr Economi Forol yng Nghymru	Inquiry into the Potential of the Maritime Economy in Wales
PME 20	PME 20
Tidal Lagoon Power	Tidal Lagoon Power



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Consultation questions

Role of Government

Question 1

Do you think the Welsh Government is taking a strategic approach to developing the potential of the maritime economy?

The economic potential of maritime economy in Wales is considerable, and probably not yet fully appreciated.

A 2013 report commissioned by the Welsh Government¹ provided an initial lens on the economic potential of the marine energy sector of the maritime economy. Tidal lagoons were out of scope of this study therefore the potential economic impact of the marine energy sector is underestimated. A report by CEBR² found that a fleet of 6 lagoons in the UK could contribute £27 billion to UK GDP, creating or sustaining 35,800 jobs on average and 70,900 jobs at its peak. Once operational, 6 tidal lagoons would contribute £3.1 billion per annum to UK GDP, creating or sustaining as many as 6,400 full time equivalent long term jobs. Also, because of the significant export potential, CEBR also reported that there was a potential to increase net exports by £3.7 billion per year (equivalent to 13% of the current trade deficit).

With the world's first tidal lagoon intended for Swansea Bay, and the potential for a number of tidal lagoon projects in Wales, this is a unique economic opportunity for Wales. It is a real opportunity now that requires decisive action to ensure that this economic opportunity is not lost. A strategic approach will then be essential for Wales to realise the potential economic benefits of the tidal lagoon industry.

Recent activity by the Welsh Government shows encouraging signs towards a more strategic approach to develop the potential of the marine energy sector, such as the recent announcement of a Marine Energy Task and Finish Group and an internal cross departmental group to co-ordinate activity on Tidal Lagoon Swansea Bay.

The EC Blue Growth Strategy is a helpful strategic framework for considering the diverse elements of the maritime economy. It focuses on developing sectors of high potential for sustainable jobs and growth, such as ocean/marine energy, mariculture and coastal tourism. Tidal lagoons are relatively unique because of the transformational potential of the infrastructure. Although primarily for generating electricity, tidal lagoons can also provide coastal protection, act as a catalyst for coastal regeneration, support aquaculture and mariculture, and coastal tourism. A more strategic approach could help foster co-operation across maritime economy sectors, which could for example help identify opportunities for tidal lagoons projects and the tidal lagoon industry to support these sectors. A more strategic approach could also help focus on addressing the barriers to realising the

¹ Regeneris Consulting and the Welsh Economy Research Unit, 2013, The Economic Impact of the Development of Marine Energy in Wales.

² The Centre for Economics and Business Research, July 2014, The Economic Case for a Tidal Lagoon Industry in the UK.

potential for the maritime economy, including consenting complexities and delays which affect investor confidence.

Are there any examples of best practice in this area?

There are many examples of best practice approaches, which together might comprise a strategic approach (such as initiatives for developing evidence, and partnership approaches). Although marine spatial planning is driving a strategic perspective in regions such as the Baltic Sea, we are not aware of a best practice strategic approach to developing the potential of the maritime economy across the sectors. There is an opportunity for the Welsh Government to consolidate and evolve best practice to lead the way.

Question 2

How can we use existing EU funding sources to support the sector?

Existing EU funding sources should be leveraged to assist SMEs in high priority 'Blue Growth' sectors such as marine energy, aquaculture, mariculture, and coastal tourism. There should be a particular focus on projects with the potential for direct economic impact in Wales. Also, an aspiration to use more complex EU funding such as Horizon 2020.

What should Welsh Government and others do to identify and make use of these?

Welsh Government and SMEs need to work together to avoid missing out on funding opportunities to progress the sector and to realise the economic benefits.

A strategy for the maritime economy could help align the various/multiple Welsh Government priorities, and also help alignment with EU priorities and the EC Blue Growth Strategy to maximise leverage of structural funds to progress the maritime economy in Wales.

The Welsh Government could consider setting up a support network for the private sector, to enable access to expert knowledge of EU funding, and to build capability in the private sector to improve the quality of funding bids. Targeted awareness initiatives could help encourage private sector funding applications in priority 'Blue growth' sector to realise the most economic value from funding opportunities. The complex and lengthy administrative processes and requirements associated with some EU funding applications are discouraging. A review of administrative barriers could ensure funding opportunities are inclusive, accessible and focused on economic development.

Question 3

Please can you give an assessment of the way in which Wales is engaging with EU level initiatives such as the Ocean Energy Forum and

Ocean Energy Europe.

Tidal Lagoon Power is a member of Ocean Energy Europe, which recognises tidal lagoons as a potentially significant option for Blue Growth in Europe³. In addition to the potential of tidal lagoons to contribute to low carbon electricity supply, diversity of supply, energy security, employment and jobs growth, Ocean Energy Europe recognises the range of environmental, economic and social benefits such as coastal flood protection, biodiversity management, sports and public amenities that could combine to redefine the role of a power plant – as illustrated by the Tidal Lagoon Swansea Bay project.

We engage with the European Commission, including DG MARE. The EC recognises⁴ the promise of the marine energy sector and the challenges that need to be resolved in order to reap the benefits, including difficult access to finance; infrastructure barriers; administrative barriers, such as complex consenting and licensing procedures which can delay projects and raise costs; the need for more research and better information on environmental impacts. The Ocean Energy Forum was created by the EC as a central element of an action plan to support the development of ocean energy. The Forum brings together the EC, member states and industry as a platform for co-ordinating support and risk sharing to provide practical support to help the sector. Tidal Lagoon Power is engaging with Forum initiatives such as the Strategic Roadmap for ocean energy, which will be likely to inform a European Industrial Initiative.

We are unaware of Welsh Government involvement with Ocean Energy Europe or the Ocean Energy Forum. However we are aware and encouraged by the recent announcement that the Minister for Natural Resources will be speaking at Ocean Energy Europe 2015 conference in Dublin.

³ http://www.oceanenergy-europe.eu/images/Tidal_Lagoons_-_A_new_opportunity_for_Blue_Growth_in_Europe.pdf

⁴ Press release: http://europa.eu/rapid/press-release_IP-14-36_en.htm

Ports

Question 4

How effective are the Welsh ports and hinterland connections in Wales in promoting connectivity to Ireland and the rest of Wales?

Ports are significantly important to economic development in Wales, particularly the marine energy sector. Therefore their effectiveness as economic development hubs and gateways for connecting people and industry is crucial.

How do the Enterprise Zones help to promote the ports and related businesses?

Enterprise Zones seem to be a successful incentive and marketing tool to stimulate economic development.

'Maritime economy Enterprise Zones' could support the profile and development of maritime economy. For example, they could be aligned with tidal lagoon industry needs such as landfall areas and turbine manufacturing.

Question 5

How can Welsh ports, ferry operators and related businesses benefit from and support the development of the Maritime economy, including ocean energy?

Welsh ports will be a significant focus of investment if Wales can realise the opportunity from the tidal lagoon industry.

We work closely with the ports sector. Effective port facilities are a critical part of the infrastructure required support the construction of tidal lagoons, also manufacturing, assembly and supply chain activities. In addition to the domestic potential for tidal lagoons, the export potential means that ports in Wales could benefit considerably from a tidal lagoon industry if the opportunity is realised.

Also, when developing our projects, we assess the potential for tidal lagoons to enhance existing port facilities and connections such as cruise ship berthing.

What support should be provided to ensure this benefit is properly realised?

The considerable opportunity to Wales from a tidal lagoon industry needs to be realised. Co-ordination of priorities across the maritime economy could help realise the opportunities that arise from tidal lagoon projects and the associated industry.

Question 6

What are the implications of the St David's Day announcement which proposes to devolve the responsibility of ports policy to Wales?

The proposals seem to be an opportunity for the Welsh Government to provide a stable and competitive policy framework to support Welsh ports and their role in supporting economic development in Wales, particularly the maritime economy. Also, an opportunity for strategic integration of economic development, transport, land use and marine planning and with other policy areas such as energy and tourism.

How can this support connectivity and the development of the Maritime Economy?

It should be an advantage if it enables development of Welsh ports to facilitate delivery of Welsh Government priorities. It is crucial that Welsh ports are able to effectively support the maritime economy, particularly the marine energy sector.

Energy

Question 7

How can Wales realise the strategic importance of planned initiatives such as the tidal lagoon projects in West Wales and the Anglesey Energy Island Programme?

The considerable opportunity to Wales from a tidal lagoon industry will be lost without practical support from the Welsh Government to deliver the world's first at Swansea Bay.

Tidal Lagoon Power aims to drive a critical change in the UK's energy mix by developing infrastructure to harness natural power from the abundant natural resource of the rise and fall of the tides. The Tidal Lagoon Swansea Bay project establishes a scalable blueprint for tidal lagoons, a proof-of-concept for a series of lagoons, marking the beginning of a new industry. Tidal lagoons could significantly contribute to a maritime economy in Wales through the investment in infrastructure projects to generate secure and affordable low carbon energy, with diverse range of direct and integral economic, social and environment benefits.

Negotiations continue with the UK Government on the Contract for Difference for Tidal Lagoon Swansea Bay which will be the first in a fleet of lagoons that could deliver up to 8% of the UK's electricity requirements. Although a Development Consent Order (DCO) was granted in June this year, we are awaiting a decision on the marine license from Natural Resources Wales. Because of the consenting arrangements in Wales, it was not possible to integrate the determination of the marine license with the DCO as a 'deemed marine license' as is the usual process in England.

Having submitted our initial scoping document to the Planning Inspectorate, we hope that Tidal Lagoon Cardiff will follow as the first full-scale energy

producing lagoon. We continue to explore a number of other UK sites that could be uniquely positioned to deliver a range of economic, social and environmental benefits as part of this fleet. In addition to Tidal Lagoon Swansea Bay and Tidal Lagoon Cardiff, we are also looking at feasibility of other projects in south and in north Wales. This means that there is a considerable opportunity for Wales to capitalise on its excellent natural resource to take the first-mover advantage of this new industry.

The Tidal Lagoon Swansea Bay project will result in up to 1,900 full time equivalent jobs during the construction stage, and up to 181 long term full time equivalent operations, maintenance and employment relating to the running of the recreational facilities⁵. In terms of economic stimulus to the region, this amounts to up to £316million GVA during construction and £76million GVA per annum throughout the 120 year operational life of the tidal lagoon.

Analysis by CEBR⁶ found that a fleet of 6 lagoons in the UK would contribute £27 billion to UK GDP, creating or sustaining 35,800 jobs on average and 70,900 jobs at its peak. Once operational, 6 tidal lagoons would contribute £3.1 billion per annum to UK GDP, creating or sustaining as many as 6,400 full time equivalent long term jobs.

Our initial feasibility work has also identified a number of international locations that offer the right conditions for developing tidal lagoons. This means there is a significant export opportunity on offer. CEBR⁷ reported that there was a potential to increase net exports by £3.7 billion per year (equivalent to 13% of the current trade deficit).

The independent Tidal Lagoon Industry Advisory Group (set up by Roger Evans MBE in early 2014) represents the interests of Welsh and UK suppliers to help realise a sustainable tidal lagoon industry. Our ambition for Tidal Lagoon Swansea Bay is to achieve a 65% UK content spend against the total capital expenditure and where 50% of that total capital expenditure is to be spent in Wales. In addition to this, there are a number of commitments in place in relation to local employment and materials. For example, TLSB has undertaken that contractors would provide notification to local skills provider schemes run by the host local authorities in advance of any recruitment process commencing. We have undertaken that main contractors would notify the host local authorities and advertise supply chain and sub-contracting opportunities with a value of more than £5000 on the Sell2Wales website. The Welsh Government has been supporting our supply chain awareness events.

Investment in skills and training is a fundamental area that requires attention in order to realise the potential in Wales from this new industry. We are working with the independent Tidal Lagoon Industry Advisory Group and the Skills and Training subgroup to identify and develop strategies to respond to the challenge of maximising skills and training opportunities generated by tidal lagoon projects. The Welsh Government is also supporting this work through commission of labour market studies to help inform the labour

⁵ The Centre for Economics and Business Research, July 2014, The Economic Case for a Tidal Lagoon Industry in the UK.

⁶ The Centre for Economics and Business Research, July 2014, The Economic Case for a Tidal Lagoon Industry in the UK.

⁷ The Centre for Economics and Business Research, July 2014, The Economic Case for a Tidal Lagoon Industry in the UK.

demand, the potential supply of labour, analysis of skills gaps and identify potential interventions required (in the short and longer term) to realise the employment opportunity for Wales. Whereas there will be immediate skills needs to deliver the Tidal Lagoon Swansea Bay project, the demand to supply the industry will be ongoing, which is why education programs are also important.

We welcomed the Welsh Government consultation earlier in year on aligning the apprenticeship model to the needs of the Welsh economy, in particular the Welsh Government's intention to tap into opportunities to grow the demand and supply for skills, specifically through working together with industry to strengthen links with major infrastructure projects and associated supply chains. This principle of collaboration and partnership is critical to realise the opportunities from infrastructure such as tidal lagoons.

Collaboration with industry was also an important element of the proposals for Developments of National Significance. We support a strategic long term approach to planning for infrastructure (including education and skills to support delivery of infrastructure), including a longer term perspective in the Wales Infrastructure Investment Plan to help facilitate and co-ordinate strategic infrastructure projects. We look forward to engaging with the process of preparing the National Development Framework now that the Planning (Wales) Act is in place, and the forthcoming Welsh National Marine Plan. A more integrated approach to infrastructure planning could help to co-ordinate across industry sectors and government departments. We consider that this is already acknowledged by the Welsh Government in relation to tidal lagoons through the establishment of a cross-government group on tidal lagoons. This approach could encourage the realisation of multiple benefits from strategic projects such as tidal lagoons.

More recently, and specifically on energy, the Minister for Economy, Science and Transport has convened a task and finish group to advise on a Marine Energy Plan for Wales. We welcome the collaboration between Government and industry.

Question 8

Please tell us what you think are the key barriers and risks to development of ocean energy and how Wales can help overcome these.

Barriers to realising the promise of the ocean/marine energy sector include administrative barriers such as consenting and licensing procedures; lack of coherent strategies, the need for more research and better information on environmental impacts; difficult access to finance; and infrastructure capacity (which are consistent with the challenges identified by the EC⁸). Such barriers can lead to uncertainties that affect investor and business confidence.

For example:

Consenting, licensing and leasing

- Limitations to the scope of project elements that can be consented under the Planning Act 2008 (Nationally Significant Infrastructure Projects) mean that additional planning consents are required from the Local Authority, entailing further cost and delay - a complexity that

⁸ Press release: http://europa.eu/rapid/press-release_IP-14-36_en.htm

needs alleviating through legislation.

- Need for NSIPs in Wales to also seek a separate marine license. There are no statutory time limits associated with the marine license process in Wales, an uncertainty which we hope might be resolved for the future through the Environment (Wales) Bill.
- Lack of policy to facilitate decision-making, such as The Crown Estate leasing.

Infrastructure barriers

- Lack of understanding of capability and capacity of supply chains. A focus on developing the supply chain in Wales to address capacity issues, and supply chain gaps will help plan for the industry. A strategic long term perspective across political cycles, and a programme of incentives will help foster business confidence in a new industry sector.
- Skills gaps need to be understood to inform priority skills and training initiatives.
- Lengthy lead-in time to plan for supporting infrastructure, which could be co-ordinated through long-term strategic infrastructure planning.

Access to funding

- Lack of understanding of challenges faced by SMEs, and the support required, which could be overcome by more engagement between Government and the private sector.
- Complex and lengthy administrative processes to access EU funding support (compounded by lack of confidence of success). Processes could be reviewed.

Research

- Gaps in the marine evidence base, which should be addressed through focused investment in collaborative industry focused research projects.

Policy and strategy

- Need for an integrated approach to co-ordinate across policy portfolios relevant to marine energy, including economy and climate change, and marine and terrestrial planning systems.
- Articulation of a long-term strategy to provide direction on priorities, policies, plans and programmes to support co-ordination of actions to address barriers and risks to develop the potential of the marine energy sector and the maritime economy.

The newly formed marine energy task and finish group will investigate these and other barriers, potential solutions and actions required to deliver jobs, growth and wealth from the emerging marine energy sector.

However, one of the biggest risks to development of the ocean energy sector is Wales not being able to realise the economic opportunity from the world's first tidal lagoon at Swansea Bay. Wales has the opportunity to lead this industry through advocacy and practical support to help deliver Tidal Lagoon Swansea Bay, which in turn will demonstrate that Wales has the investment environment and the expertise to be global leaders in marine energy.

Further information

Please tell us anything else you would like to mention this topic.

Thank you for contributing to our inquiry