

Written evidence submitted by Morlais (REW0020)

Submission by Morlais to the Welsh Affairs Committee

This submission is submitted by John Idris Jones on behalf of the Morlais Project Team in response to the Welsh Affairs Committee call for evidence on renewable power.

Morlais is a renewable energy project associated with tidal stream energy development, set up by Menter Môn.

Menter Môn is a third sector not-for-profit local development company rooted in North West Wales, which has a track record of successful delivery of projects in Anglesey and the wider North West Wales area – supporting communities in their aspirations through local development projects and economic and environmental projects.

In addition to the Morlais Project, Menter Môn is also pursuing the opportunity to develop a low Carbon Hydrogen Hub at Holyhead. The development of the Hydrogen Hub will depend critically on:

- UK Government policy supporting the development of a market for Hydrogen
- Support from Welsh Government to develop the initial phase of the project
- the Government needing to build the trust and confidence of potential consumers of Hydrogen (eg Transport, heating etc) to invest in new technology and
- Government putting in place the necessary support to allow infrastructure to be built for Manufacturing and transporting Hydrogen

Morlais

Morlais is a tidal stream energy development project. It is about enabling the development of the tidal stream marine energy sector off the coast of Anglesey. It will put in place a consented region of sea together with grid connection to the local and national electricity transmission system. This will enable technology and project developers to locate their machines in the water off Anglesey and enable the development of a tidal stream industry in North West Wales.

The management by Menter Môn of the Morlais Tidal Demonstration Zone, a 35 square kilometer area off the coast of Anglesey will ensure:

- Large scale (up to 240MW) deployment of Zero Carbon generation on Anglesey.
- Investment by device developers - there are currently 10 international tidal stream technology companies committed to deploying and testing arrays of various technologies in the Morlais zone with a potential investment in excess of £500m.
- Any surplus income from the Morlais project would be committed to local economic regeneration in North West Wales by Menter Môn

Morlais and the tidal stream sector has the potential to support the development of local economy in North West Wales and contribute significantly to the economic levelling up agenda.

We are currently in the process of obtaining regulatory and planning approvals, and a grid connection agreement for up to 240MW of deployed capacity. This part of the process will be completed and the necessary grid connection built by 2023.

We believe that tidal stream energy has a significant role to play in delivering the UK's Net Zero commitment. There is strong evidence that the industry can deliver a Levellised Cost of Energy (LCOE) of £90/MWh in the 2030s when 1 GW of capacity is deployed, with further reductions in cost possible beyond that.

In addition the industry can make a strong contribution to levelling up the economy in Wales by promoting investment and jobs in peripheral coastal areas. This case is strengthened by the high UK content achievable with tidal stream energy projects, in contrast to some other technologies.

In order to achieve these positive outcomes, we believe Government action is needed in a number of key areas:

- A clear commitment to the tidal stream industry looking a decade ahead. This will unlock industry investment in consenting sites, developing technology throughout the supply chain and investing in increasing deployed capacity and production facilities.
- Recognizing that fair competition over the long-term is key in driving down costs. In particular for the tidal stream industry this means ensuring the rules for each CfD auction round are designed to deliver multiple technology and project winners at a commercial scale.
- Providing other support mechanisms to ensure continued innovation in tidal stream devices and supporting technologies. This includes the IPPA proposed in response to earlier consultations.
- Continued support to the UK's world leading support infrastructure of test and demonstration sites including Morlais.

In addition we believe that there should be close co-operation between Cardiff and Westminster for measures to accelerate deployment of tidal stream generation.

Yours sincerely

John Idris Jones
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Detailed response to call for evidence

- How can the UK Government best support the deployment of renewable generators in Wales?

As Morlais is a developer of a tidal stream Demonstration Zone we have restricted our comments to the tidal stream industry only.

The tidal stream industry is at an early stage of development, but has the potential to deliver GWs of predictable low carbon generation in the 2030s. Therefore the key need of the industry is suitable revenue support mechanisms to encourage early deployment of tidal stream devices. This will be crucial in reducing industry costs and making it cost-competitive in the 2030s.

The industry support needs to use multiple mechanisms including:

Contracts for Difference

This requires from the UK Government:

- A long-term commitment to the CfD process
- A ringfenced minima for the tidal stream industry, with the size of the minima adjusted to reflect circumstances at each auction round. For AR4 in 2021 this should be 100MW
- Realistic Administrative Strike Prices for each auction round. For AR4 in 2021 this should be £250/MWh
- Parameters set for each auction round to encourage multiple technology and project winners. The industry will progress faster if competition is maintained and 'stop-start' avoided.
- Sufficient capacity available in each auction round to ensure economies of scale can be achieved. Alternative arrangements (such as the IPPA) should be put in place to encourage early stage technology deployment in the industry to maintain competition.
- Consideration of further changes to the CfD to increase flexibility such as:
 - More frequent auctions
 - Reduction in the gap between auction award and delivery years
 - Extending delivery years to minimise stop-start issues

IPPA

In response to a challenge from the UK government, the industry has developed a proposal for the creation of an Innovation Power Purchase Agreement (IPPA) that would allow early stage technology developers to attract investors to commercialise the technology.

The main points are as follows:

- The IPPA would be based around allowing technology developers to sell power generated to a buyer at a strike price set by BEIS. The buyer could then reclaim any difference between the higher strike price and the market price as a tax rebate.
- Only 120MW is required for tidal stream allocated in 30MW tranches at decreasing strike prices.
- Funding would be direct from Government and so the cost does not affect consumers bills.

- Importantly, private capital takes all the risk – tax rebates are only available if the energy is generated and sold.

Grants

In addition to the CfD and IPPA it is important that there is continuing support for innovation throughout the supply chain to encourage early deployment and cost reduction in tidal stream energy. Therefore marine renewables need to remain a priority for UK Research and Innovation support both in developing new technologies and processes, and in confirming its environmental sustainability.

In addition the UK Government needs to be prepared to act to remove other barriers to deployment such as consenting issues, decommissioning bonds and limited capacity on the electrical grid including both the Distribution and Transmission Networks.

- How should the UK and Welsh Governments work together to support the development of renewable energy projects in Wales?
 - UK Government sets in place long term policies for the UK. These need to allow devolved administration flexibility for complementary schemes that are especially designed to address local issues or to accelerate deployment. Welsh Government programmes should be seen as giving support for the industry to grow locally
 - Clear policy enablers are required at the appropriate Government level for development of green hydrogen – setting in place the right tax incentives to encourage movement to H2 vehicles and the generation of H2 from low carbon energy sources. WG needs to promote growth of a H2 market by requiring public bodies in Wales to ‘go green’ and deliver low carbon Transport systems
 - UK Government needs to ensure that National Grid and SP Manweb can carry out proactive grid reinforcement to allow projects to happen in a timely manner and with Grid constraints removed
- What mechanisms can ensure that subsidies for renewable generators are good value for money?
 - Renewable generation is low carbon generation. This zero-carbon energy generation in itself has great public benefit – supporting the net zero Carbon 2050 target, reducing the driver of climate change and creating cleaner air etc.
 - Additional value for money can be obtained by ensuring that any organisation receiving subsidies delivers value in the Welsh economy by insisting on:
 - Setting up a local manufacturing base (with potential longer term export opportunity)
 - Use of local supply chain to deliver project (50% minimum local content)
 - Creation of local employment

- Development of local skills by developer
 - That generators locate headquarters in Wales
 - That generators set up R&D and support organisations in Wales
- Further value for money can be obtained by encouraging local organisations (such as Menter Mon) to come forward to create and run such projects. Menter Mon will be able to retain any surplus income locally and recirculate it in the form of other projects which it will set up in the area.
- By taking a holistic view of any subsidy received – eg for subsidies required to develop new marine tidal stream industry in N W Wales, by taking the Menter Mon approach, benefits will be brought to peripheral economies by developing local supply chains, skills etc

- How can the UK Government facilitate Welsh contributions to COP26?

- Supporting an industry led Welsh stand for Marine Energy Wales and for Hydrogen in Wales
- Identify exemplar projects to showcase – eg Morlais; facilitate intros etc
- By working collaboratively with key projects, such as Morlais and allocate Welsh “Energy Ambassadors” for each project to facilitate introductions, showcase the benefits of partnerships between the Third Sector, Industry and Government.
- Provide suitable and defined resources to specifically support costs associated with attending and producing e.g. quality PR materials.
- Provide networking opportunities and formal receptions.
- Be responsive, agile and inventive and appreciative of third sector financial budgets and structure and their constraints. e.g. Morlais have no allocated budget to attend COP26.
- Mitigating the risk of COVID resulting in cancellation of COP26 and the risk associated with companies committing to attending

- What implications is COP26 expected to have for Wales?

- Potential to raise people’s awareness of need to take action – depends on UK Gov and WG running campaigns
- Credibility for Wales through its demonstration of measurable and tangible commitment to a sustainable future e.g. through its early and consistent support of marine energy and Morlais.
- Wales is walking the walk and therefore is an international reference point for Tidal Stream and Marine energy which will generate the exchange of best practice, consultancy, inward investment and global recognition for the early commitment and its benefits for a global sustainable future.
- Showcase and reference point for creating an energy sector to address economic inequality and supporting rural communities.
- Access to an influential audience and decision makers to identify potential international partnership, collaboration and investment opportunities and present challenges to the industry.

- Has the COP26 Year of Climate Action had any significant implications for Wales?
 - Created a profile, expectations and ambitions of showcasing Wales' Marine Energy Sector and our commitment to a sustainable future.
 - COP26 is on our door step and there is a political will to make it a success, hence a focus and expectation within Welsh/UK sustainable energy projects which is focusing political energy within this spectrum. Wales have identified Marine energy as a "new" industry and COP26 is driving the agenda.

- What opportunities are there for renewable energy to aid Wales post-COVID-19 economic recovery?
 - Morlais – investment now and appropriate financial support structures will allow the sector to grow and develop in an economically challenged area of Wales and give a positive message about growth potential post Covid
 - Development of Hydrogen hubs at Holyhead and Deeside will similarly support the development of the local economy and give positive messages about a sustainable long term future for the area

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