Milford Haven Waterway
Future Energy Cluster

Delivering an accelerated transition to a Net Zero future

The Milford Haven Waterway aims to support the UK by achieving...

20% of UK Government **low carbon hydrogen production** target by 2030

At least **10%** of the Celtic Sea **floating offshore wind** target by 2030

The Milford Haven Waterway is a critical national energy asset, **attracting billions of pounds in investment** for over sixty years and supplying **20% of the UK's annual energy demand**.

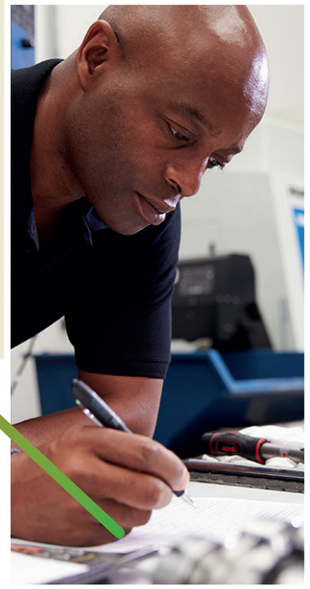
The Waterway has a pivotal role to play in delivering the UK's net zero ambitions, offering a whole energy cycle solution that will unlock accelerated transition, while stimulating economic growth. This is an opportunity that will repurpose existing assets, skills, rail connectivity, transmission and pipelines to deliver a future focused on hydrogen (blue and green), floating offshore wind (FLOW), marine renewables, sustainable alternative fuels, CO_2 shipping, and energy storage.

The benefits are clear. Continued investment and support will create and stabilise thousands of jobs and supply chain opportunities, levelling up the coastal communities across South Wales. It will strengthen UK energy resilience while establishing new export opportunities. And, it will stimulate inward investment providing clear line of sight on returns for investors, ensuring the Milford Haven Waterway remains a major energy innovation hub capable of competing globally.

Government support is needed:

- Expand South Wales' grid capacity by 10GW by 2030
- Implement a fast-tracked consenting regime
- Back the Celtic Freeport bid
- Introduce mechanisms to de-risk the Celtic Sea FLOW opportunity
- Back a South Wales Floating Offshore Wind (FLOW) infrastructure bid
- Support the Milford Haven Waterway SuperPlace ambition, including both blue and green hydrogen
- Support prioritisation of South Wales in National Grid's Project Union
- Support a BEIS Cluster Sequencing Track 2 bid
- Incentivise the production and use of low carbon fuels
- Back a Skills Accelerator programme
- Back a Supply Chain Accelerator programme

Proud to be part of the South Wales Industrial Cluster: maintaining 100,000 UK manufacturing jobs and contributing £8bn to the economy.






Government support needed to deliver accelerated transition to a Net Zero future:

Grid capacity

Expand South Wales' grid capacity by 10GW by 2030

To facilitate the transmission requirements of FLOW and other new green developments, we need an additional 10GW for South Wales by 2030.

Consenting

Implement a fast-tracked consent regime

Speed and certainty of marine licencing and national planning consenting is essential to encourage large-scale global investment. We need increased case officer support to ensure that any future DCO, DNS, planning, marine licensing or environmental permit application is delivered at speed. Valero's Pembroke Refinery Cogen Project is an exemplar for the DNS process. We also need to add a net zero remit to environmental regulators and planning bodies. While also providing guidelines on how electrolysers interface with a renewables-based power Grid to ensure all terrestrial planning regimes are aligned.

Celtic Freeport

Back the Celtic Freeport bid

To ensure Wales maximises the economic opportunity from the development of floating offshore wind and other industries, creating jobs and cleaner energy we need support for the Celtic Freeport.

De-risk development

Introduce mechanisms to de-risk the Celtic Sea FLOW opportunity

Uncertainty in securing a Crown Estate seabed lease, grid connection and Contracts for Difference auction means developers, ports and supply chain invest at significant risk. We need mechanisms that manage this risk to support long term, stable growth and maximised security of investment.

FLOW infrastructure

Back a South Wales FLOW infrastructure bid

To maximise green manufacturing, operations and maintenance opportunities from a £5 billion industry taking shape in the Celtic Sea, we need to secure public funding to improve and expand port and manufacturing infrastructure. Ports need guaranteed project pipeline to ensure efficiency of asset utilisation in the medium to long term. Domestic manufacturing capacity will be essential if the British supply chain content target is to hit the £1bn of benefit per 1GW installed. By building significant domestic manufacturing capacity, we can turn Welsh green industrial content into an export opportunity to markets across Europe.

Hydrogen

Support the Milford Haven Waterway SuperPlace ambition

To deliver the national 10GW hydrogen target, supported by capital co-investment and revenue business models, we need to unlock strategic infrastructure and create enduring domestic supply-chains for hydrogen and offshore renewables. This will encourage demand side uptake of low carbon hydrogen. Alongside the speed of consent, we must define and harmonise standards and use cases; introduce OPEX support mechanism for electrolysers and refuelers, based on uptime and hydrogen delivery volumes; exempt electrolyser facilities from environmental levies as an energy-intensive industry; and create a mechanism for National Grid Gas Transmission to be an off-taker of last resort for green hydrogen, up to a 20% blend or 100% in trial areas.

Support prioritisation of South Wales in National Grid's Project Union

Under 'Project Union', National Grid is developing a new hydrogen backbone for the UK. We need to ensure that the Milford Haven pipeline route is prioritised to unlock this opportunity or risk significant delays to the development of the hydrogen economy for the whole UK south west region.

CCS and CO_2 shipping

Support a BEIS Cluster Sequencing Track 2 bid

With no obvious Carbon Capture and Storage (CCS) sites in the south of the UK, we need an even playing field between pipelined CO_2 and shipped CO_2, whether through regulatory or charging regimes. Support for a BEIS Cluster Sequencing Track 2 bid will help ensure CO_2 shipping and the hydrogen economy can grow and ensures compliance with a decarbonised electricity system policy by 2035.

Alternative fuels

Incentivise the production and use of low carbon fuels

Clean-burning, renewable fuels can support widespread emissions reductions, particularly for hard-to-abate sectors such as transport. We need policies and incentives for the production of fuels from sustainable feedstocks (such as Sustainable Aviation Fuel) that can cut GHG emissions.

Green skills

Back a Skills Accelerator programme

To support the exploration of new technologies and incubator schemes for sustainable energy and fuels, we need to harness and grow the existing skills base. The current workforce is highly productive and many roles to support a hydrogen economy and CO_2 shipping are already in situ (such as trained process operators, engineers with technical, operational, maintenance and storage expertise). We need a skills accelerator programme that will bring local education providers and employers together to ensure a new generation can capitalise on these career opportunities.

Supply chain

Back a Supply Chain Accelerator programme

The Milford Haven Waterway has an extensive, high skill supply chain with a wealth of knowledge and experience in delivering the needs of the energy sector. As the industry continues to innovate and evolve, we need an Accelerator Programme to ensure the facilities, spaces and services within the supply chain evolve in time to support this large-scale industrial opportunity.

About the Milford Haven Waterway

The Milford Haven Waterway is a critical energy asset primed to provide the foundation of UK energy independence. It is home to two LNG terminals supplying a third of the UK's gas, one of Europe's largest oil refineries (supplying over 14% of UK transport fuel) and a Combined-Cycle Gas Turbine plant (one of Europe's largest and most efficient, powering around 4 million homes). Investment in the Celtic Sea renewables opportunity is advancing dramatically with developers working on large scale floating offshore wind farms and in delivering tidal and wave technologies. And the Waterway is already test bedding hydrogen initiatives that will provide a consistent supply of hydrogen giving rise to a thriving local hydrogen economy able to export its talent and innovation worldwide.

The Milford Haven Waterway Future Energy Cluster brings together private and public sector operations to deliver UK and Welsh Governments' energy ambitions.

Blue Gem Wind

The pioneer of floating wind in the Celtic Sea.

Cambrian Offshore South West Ltd

Delivering the Ramsey Sound regeneration of a tidal energy deployment site, including a grid connected, subsea tidal turbine, sub-station and associated infrastructure.

DP Energy

Renewable energy developer DP Energy has a 30 year track record with a global portfolio spanning wind, solar and ocean energy, operating in the UK, Ireland, Australia and North America.

DragonLNG – Energy in Wales

Dragon LNG, an LNG import terminal, is a critical national infrastructure site with the capacity to supply 10% of the UK's power demand.

South Hook LNG Terminal Company Ltd

As one of the largest LNG Terminals in Europe with the ability to meet around 20% of the UK's daily natural gas needs, South Hook plays a vital role in the resilience of the Country's energy supplies.

ERM

Developers of the 300 MW ERM Dolphyn offshore hydrogen project generating green hydrogen from floating offshore wind, piped directly back to Milford Haven. ERM will be trialling the system offshore in Summer of 2023 with the commercial start-up of the field planned for 2028.

Marine Energy Wales

Marine Energy Wales brings together technology developers, the supply chain, academia and the public sector to establish Wales as a global leader in sustainable marine energy generation, making a significant contribution to a low carbon economy.

Catapult Offshore Renewable Energy

The UK's leading technology innovation and research centre for offshore renewable energy.

Cyngor Sir Penfro / Pembrokeshire County Council

Pembrokeshire County Council will use all levers at our disposal to maximise Pembrokeshire's Economy and ensure the aims of the Haven Waterway Future Energy Cluster are met. This is essential to continue Pembrokeshire's key place in delivering 30% of the UK's energy, making Pembrokeshire the UK Capital of Green Energy and the bedrock for the UK's hydrogen economy.

Prosperity Energy

Connecting renewable energy projects with investment to create opportunity.

Port of Milford Haven

The UK's largest energy port.

SWIC – South Wales Industrial Cluster Plan – A Plan for Clean Growth

Developing a world leading truly sustainable cluster befitting the societal needs for 2030, 2040, 2050 and beyond.

RWE

RWE is the largest power producer in Wales and the country's number one renewable energy generator, with over 3GW of capacity. RWE's flagship Pembroke Power Station hosts the Pembroke Net Zero Centre, looking at future decarbonisation opportunities including hydrogen and floating wind in the Celtic Sea.

Valero

Valero owns and operates Pembroke Refinery in south-west Wales, which is one of Europe's largest and most complex refineries, supporting over 1,000 jobs in Pembrokeshire. A major supplier of retail, commercial and aviation fuels, supported by our investments in supply infrastructure across the UK, Valero is also one of the world's largest producers of renewable liquid fuels

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