9 February 2025

RenewableUK Spending Review 2025 submission

Dear Chancellor of the Exchequer,

As the leading trade association for renewable energy in the UK, RenewableUK shares the vision for economic growth in the UK that you outlined in your recent speech on Tuesday 29 January, and we welcome this opportunity to input into the Government's Spending Review.

The renewable energy industry is driving the UK's path to Net Zero and we understand the Government's Clean Power Mission is wholly interlinked with, and supports, the Growth Mission by:

- **Providing lowest cost electricity for bill payers and businesses:** Renewable energy is among the lowest cost form of new electricity generation for businesses and consumers **– an essential building block of the emerging Industrial Strategy by lowering operational costs for sectors such as transport, tech and manufacturing.**[1]
- Creating **thousands of new jobs:** By achieving the Clean Power 2030 Action Plan, the UK renewable energy industry will employ hundreds of thousands of people in the UK. The offshore wind industry set to employ 100,000 people alone by 2030, with opportunities for workers transitioning from the oil and gas sectors, and the onshore wind sector is set to employ 27,000 jobs.[2] Manufacturing opportunities could lead to an additional 10,000 jobs per year after investment.[3] Wind sector employers and trade unions are already collaborating and exploring areas of joint work to place good quality jobs at the centre of the industry and its future growth.
- Building **home-made tech using UK ports:** in line with the Government's Industrial Strategy, the UK has an opportunity to support our renewable energy industry through scaling up UK plc manufacturing and services. We have identified five key areas of offshore wind technology and services which **could triple offshore wind manufacturing and lead to £25GVA over the next 10 years**.[4] Ports are critical to the manufacturing of offshore wind components and the deployment of projects.
- **Exporting our world-leading tech and knowledge**: 80% of the world's offshore wind potential is in water too deep for fixed turbines. By building on our leading floating offshore wind pipeline, the UK can be the first to industrialise floating offshore wind (FLOW), and export our technology and knowledge globally.

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[1] Aurora Research, Is Offshore Wind Still Good Value for Bill Payers?
[2] OWIC Skills Intelligence Report 2023.
[3] Offshore Wind Industrial Growth Plan - 2024
[4] Offshore Wind Industrial Growth Plan - 2024

- **Spurring growth in the regions and devolved nations:** Many of the jobs and economic growth opportunities for renewable energy are in regional and coastal areas across the four nations, clustered in coastal communities which have struggled to secure higher wage jobs and investment. For example, **Wales has a £47bn investment opportunity from renewable energy by 2035**.[5] Notably, there is an opportunity to secure jobs in areas of the country (e.g. North Scotland) where we might expect to see jobs transition away from fossil fuels.

However, there are several critical barriers to achieving the Clean Power Mission and growth opportunities outlined above:

- The rate at which clean energy infrastructure is deployed needs to be accelerated to achieve CP30. To support the acceleration of projects and grid infrastructure, there needs to be sufficient resources in the planning and consenting areas of Ofgem, NESO, key departments and non-for-profit advisory bodies including SNCBs. Additionally, both the Marine Recovery Fund (MRF) and radar mitigation measures, announced and agreed to by Government, must be urgently funded and implemented.
- The UK is competing for renewable energy supply chain investment in an extremely competitive international market. The Government must ensure that the UK remains an attractive place to invest and leverage private investment through grant funding, which is currently not available through GB Energy or the National Wealth Fund, well as increasing innovation and R&D funding.
- We need UK ports to be large enough to support the new manufacturing and deployment of immense-scale projects. This requires financial support mechanisms to enable our strategic ports to upgrade.
- Key policy decisions need to be made to improve investor confidence in projects and accelerate deployment of projects. The key one of these is a decision on zonal pricing within the Review of Electricity Market Arrangements, which would fundamentally change the investment profile of projects and undermine the UK's traditionally attractive regulatory certainty.
- There are already skills shortages to build the infrastructure necessary to achieve the Clean Power Mission, which are only set to be exacerbated unless there is coordinated work across Government to attract and train new and existing talent.
- Emerging technologies, such as floating offshore wind, green hydrogen and storage, which are essential to supporting an effective and efficient future energy system and must be deployed in tandem with other renewable energy projects, are still nascent and not yet commercial, and need routes to market.

HMT support to address these barriers through the Spending Review is necessary to progress the Clean Power Mission and unlock opportunities for the Growth Mission. Our submission sets out the specific, value for money, and growth-supporting measures which can achieve this.

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[5] Wales poised for a £47 billion investment opportunity from renewables by 2035

Our priority proposals for HMT in the Spending Review are:

- Ensure that wind energy has a key role in the Government's emerging Industry Strategy, aligned with the *Industrial Growth Plan* and **supported by grant funding, as committed in the Autumn Budget 2023 and Spring Budget 2024**
- **Increase strategic port capacity** through a revenue support mechanism for ports, as well as coordinating and aligning relevant government investment activities including the National Wealth Fund.
- Unlock clean electricity and economic growth by **providing funding to key bodies such as OFGEM, relevant departments, devolved governments and advisory bodies in planning and consenting** – increasing their capacity to deliver projects on time, and
- **Remove zonal pricing from the Review of Electricity Market Arrangements.**

We look forward to working with HMT and wider Government as we pursue these Missions together.

Yours sincerely,

Dan McGrail
CEO
RenewableUK

RenewableUK Spending Review Submission

About RenewableUK

RenewableUK members are building our future energy system, powered by clean electricity. We bring them together to deliver that future faster; a future which is better for industry, billpayers, and the environment. We support over 500 member companies to ensure increasing amounts of renewable electricity are deployed across the UK and access markets to export all over the world. Our members are business leaders, technology innovators, and expert thinkers from right across industry.

Key proposals

Our priority proposals for the Spending Review are:

1. Ensure that wind energy has a key role in the Government's emerging Industry Strategy, aligned with the *Industrial Growth Plan* and **supported by grant funding, as committed in the Autumn Budget 2023 and Spring Budget 2024** (outlined page 4-8)
2. **Increase strategic port capacity** through a revenue support mechanism for ports, as well as coordinating and aligning relevant government investment activities including the National Wealth Fund (outlined page 8-10)
3. Unlock clean electricity and economic growth by **providing funding to key bodies such as OFGEM, relevant departments, devolved governments and advisory bodies in planning and consenting** – increasing their capacity to deliver projects on time (page 11-12), and
4. **Remove zonal pricing from the Review of Electricity Market Arrangements** (page 13-14).

Please see pages 15 -29 for the full list of holistic proposals.

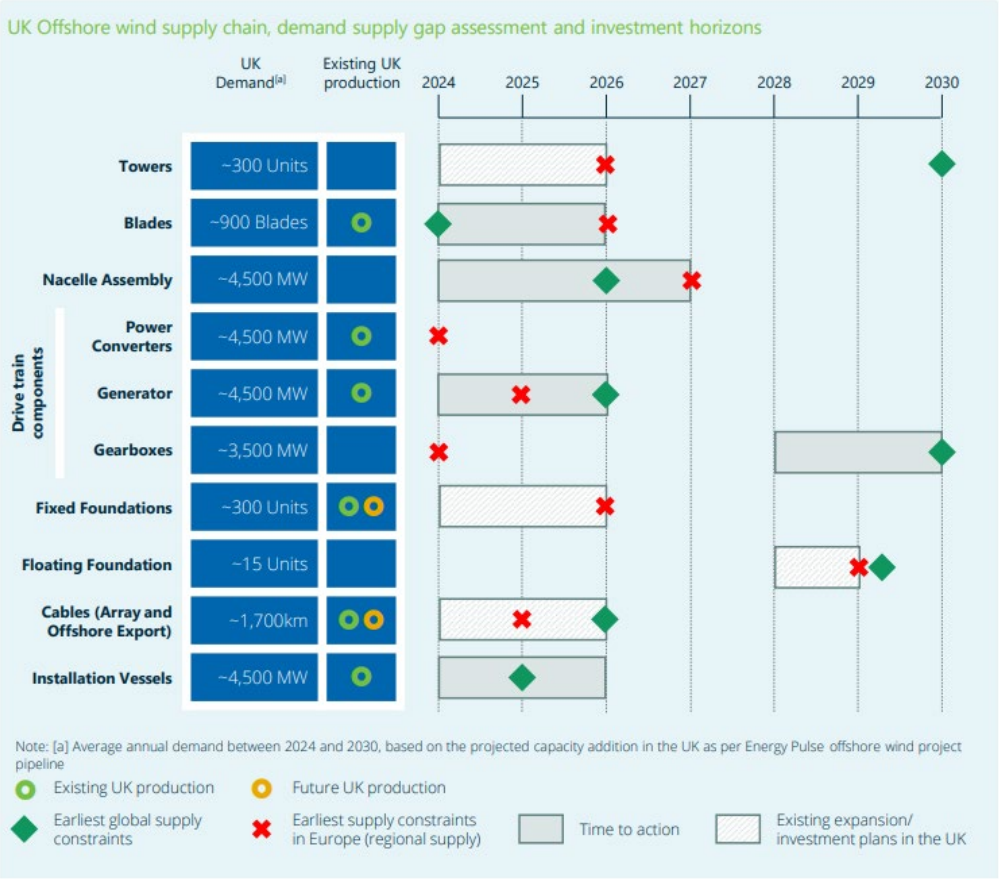
Priority measure: Support the industrialisation of the UK's renewable energy industry, dovetailing with the upcoming Industrial Strategy

RenewableUK outlined in great detail why wind energy should be a subsector of the Government's Industrial Strategy, as laid out in our response to the Government's consultation last year. In short, wind energy will be responsible for around 70% of the UK's electricity generation by 2030 under the Government's Clean Energy Action Plan (CP30). This will require c£15bn per year of investment in project deployment over the next five

years and beyond.[6] Ensuring that wind has a key role in the Government's emerging Industry Strategy is therefore strategic for the Government to:

- Secure supply chains, minimising supply chain shortages and ensuring the smooth deployment of project to meet Clean Power Mission on time,
- Ensure project costs, and in turn, the costs of UK electricity remain as low as possible, and
- Capitalise on the growth of the industry, creating new manufacturing and job opportunities in regional and coastal areas.

The development of a domestic wind energy supply chain will help alleviate shortages and bottlenecks of renewable energy components which increase costs and cause delays to projects which consequently will see the clean power targets missed. Bottlenecks are already being felt in Europe[7] (see the diagram below) and NESO's Clean Power 2030 Advice identifies supply chain constraint as one of three key factors that will determine the cost of achieving the Clean Power Mission.



Source: pg 27, Industrial Growth Plan.

[6] NESO, Clean Power 2030 Advice 2024.

[7] A_second_wind_May24.pdf

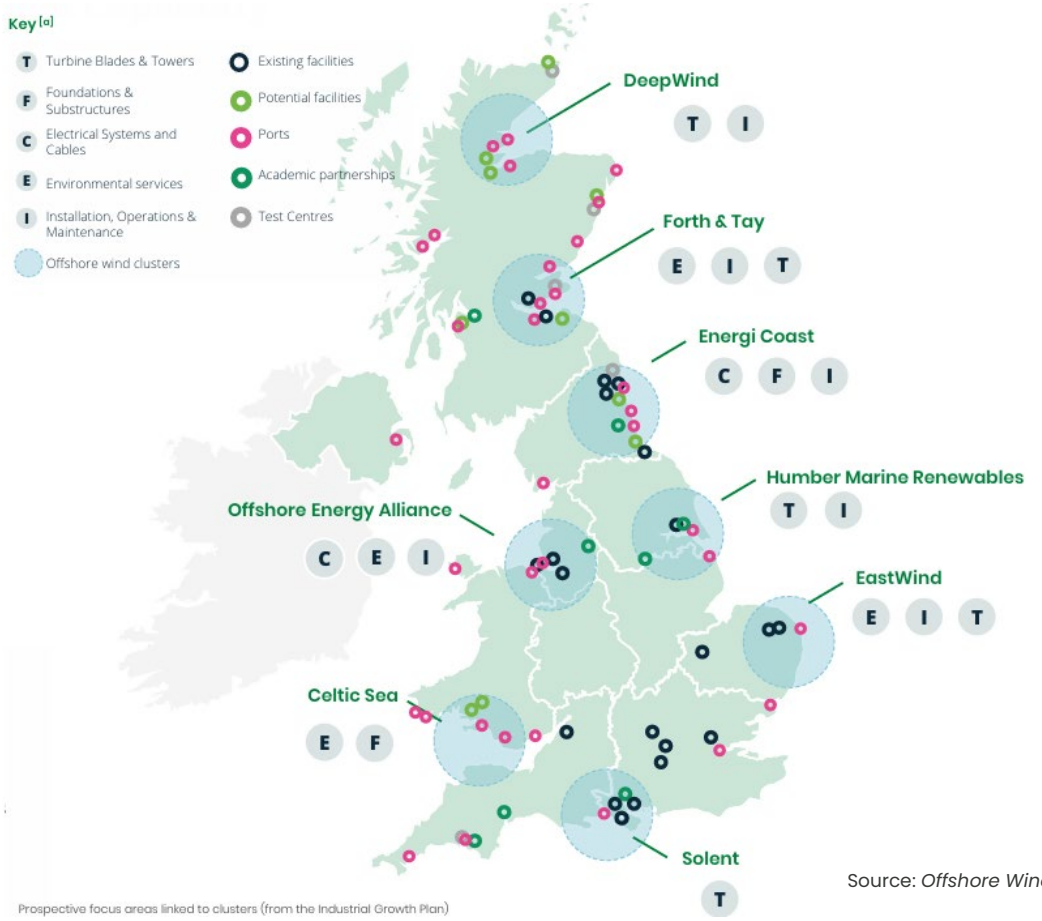
Furthermore, there is a clear opportunity to build on existing manufacturing and service capabilities to serve not only the domestic offshore wind market (worth £240 bn in GVA by 2035),[8] but the global market too, which is set to be worth £8,000 bn by 2050.[9] The UK is a world leader in offshore wind, with the second largest portfolio of operational projects behind China, a position which is likely to be maintained by 2030, where 16% of global capacity is expected to be within the UK.[10] However, despite the scale of the industrial opportunity, the potential for domestic manufacturing and services for these projects is has not yet been fully realised.

With the right framework in the Government's emerging Industrial Strategy, the UK can triple its manufacturing capabilities and generate at least £25bn GVA over the next 10 years, and create 10,000 jobs each year after investment.[11] These opportunities are spread across the four nations, predominantly in regional and coastal areas (see the map below).

RenewableUK, OWIC, the Crown Estate and Crown Estate Scotland have developed a blueprint industrial strategy for the sector – the Offshore Wind Industrial Growth Plan (IGP). The IGP is a comprehensive plan which is ready for the Government to embrace and implement as part of its Industrial Strategy, outlining:

- Exactly which parts of the supply chain the UK could reasonably land new investment, and where in the country it might locate.
- Five key areas where the UK could be internationally competitive and secure exports orders in the global market.
- A roadmap to securing investment and remaining competitive in the long term, supported by a strategy for innovation.
- A detailed list of the enabling measures required from Government.

[8] RenewableUK, OWIC, Crown Estate, Crown Estate (2024) Offshore Wind Industrial Growth Plan.
[9] Above.
[10] RenewableUK, Energy Pulse data.
[11] RenewableUK, OWIC, Crown Estate, Crown Estate (2024) Offshore Wind Industrial Growth Plan.



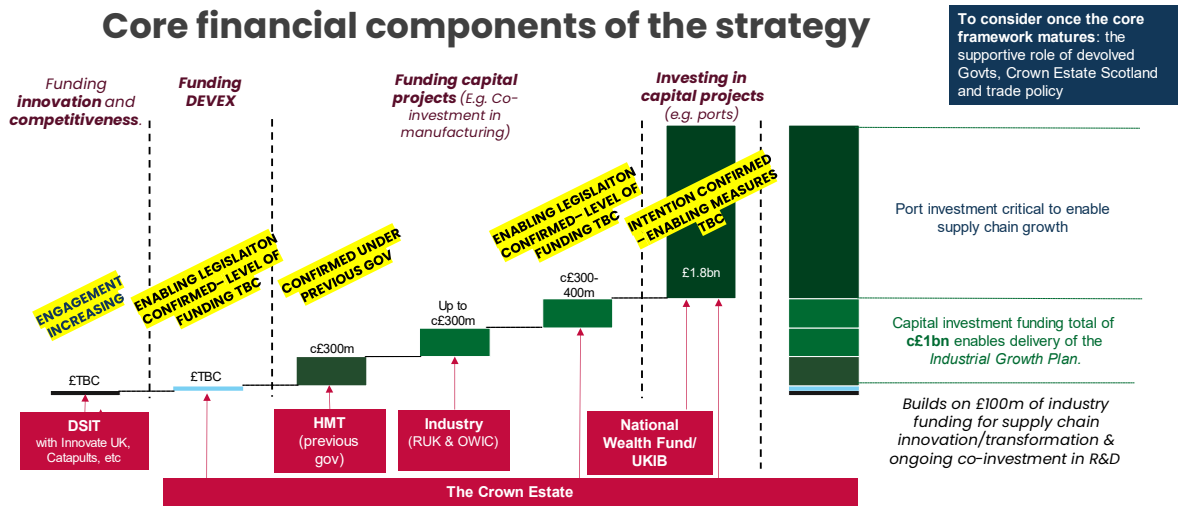
Source: *Offshore Wind Industrial Growth Plan.*

Priority proposal: Ensure that wind energy plays a key role in the Government's Industrial Strategy, using the *Offshore Wind Industrial Growth Plan* as a framework and supported by grant funding as committed to in the Autumn Budget 2023 and Spring Budget 2024

Granting funding from Government and industry is key to unlocking industrial opportunity by ensuring the UK remains competitive.

While we warmly welcome important steps from the Government, including the Clean Industry Bonus, the Clean Power 2040 Action Plan to increase volumes in the next Contracts for Difference rounds and increased funding for National Wealth Fund (NWF) investment, the **key to leveraging private investment in the supply chain is grant funding, due to international competition and the uncertainty caused by our current market arrangements**. We are currently aware of at least five live supply chain opportunities which require grant funding support, an investment total of more than £1.4bn across decommissioning, substructure, cables, O&M and installation, unlocked with total grants less than £60m. Critically, **GB Energy and the NWF are not able to provide grant funding**.

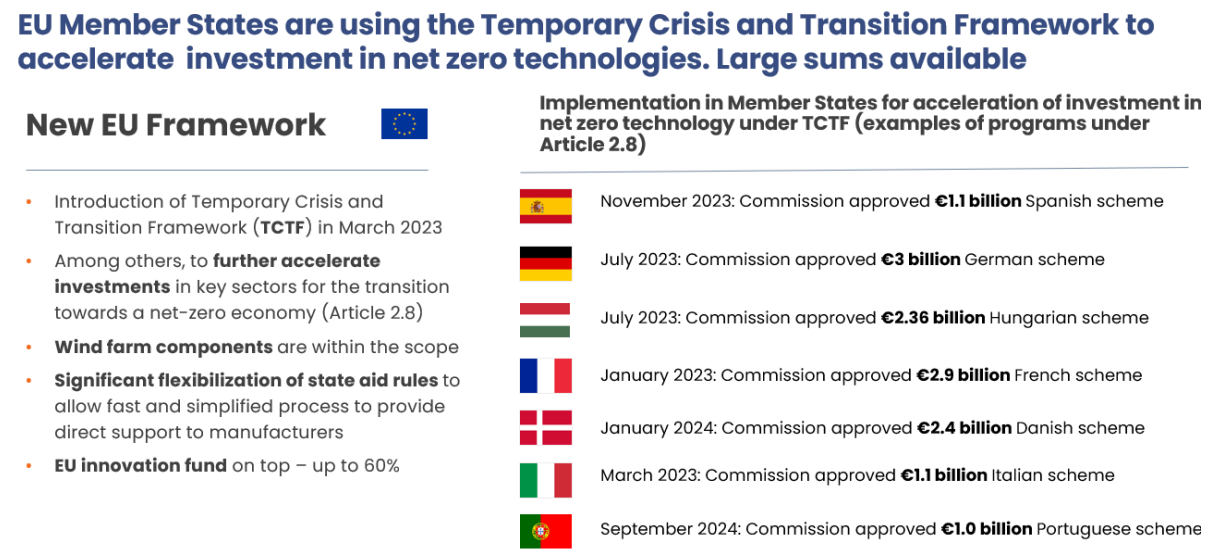
This funding could come from a collaboration of industry, Government and the Crown Estate, as can be seen in the diagram below. We were pleased to see recognition of the significance of Government funding in previous Autumn and Spring Budgets in 2023 and 2024, with the allocation of £390 mill to offshore wind manufacturing and grid infrastructure (part of the '*Green Industrial Growth Accelerator*' funding). Industry, for its part, is ready to cooperate with the Labour Government on joint investment. However, following the election, there has been **no publicly communicated strategy to address the removal of £390 mill in grant funding for the clean energy sector**.



Graph: Core financial components of the offshore wind Industrial Growth Plan

The removal of UK Government grant funding is extremely detrimental to the UK's investment attractiveness, as competitors in Europe already have well established policies and frameworks to encourage supply chain investment. The EU Commission has relaxed its State Aid rules for renewable energy and industrial decarbonisation to allow for far more government subsidy support, this through both the EU's 'Wind Power Package' as well as the adoption of the Temporary Crisis and Transition Framework.[12] EU countries have seen €672 billion in subsidies approved between the relaxation of State Aid rules in March 2023 to December 2022. These include the offshore wind grants and tax deductions offered by countries like Germany, the Netherlands, France, Spain and Portugal (see below).

[12] EU Competition and State Aid brief, 2023.



Source: Offshore Wind Industry Council.

In response to rapidly approaching bottlenecks, offshore wind manufacturers are currently deciding if they invest in a new factory either in the UK or in a different European location. This decision around grant funding is therefore urgent, and should be reflected in this Spending Review.

With the Government's positive decision to unblock onshore wind in England as one of their first actions, there is also a significant opportunity through the Onshore Wind Industry Taskforce to encourage greater investment into the industry and the supply chains which support it. The development of an industrial strategy which embraces the wind industry should seek to maximise the benefit from both offshore and onshore wind, and any successful funding model that is applied to offshore wind could later be rolled out to onshore wind too.

Priority proposal: Increase the capacity of strategic ports through FLOWMIS, revenue support scheme and alignment of funding streams

The economic growth provided by the offshore wind manufacturing opportunity outlined above is dependent on the UK's ports, as is the ability to deploy the amount of offshore wind projects needed to hit our 2030 Clean Power Mission.

Ports are critical to the manufacturing, storage, assembly and deployment of offshore wind components and projects. The increasing scale of wind components, as well as the increased rate of project deployment, require a substantial expansion of port capabilities to deliver on our industrial ambitions and 2030 targets and beyond.

An assessment of the UK's port capabilities found that reaching the aspired floating offshore wind deployment scenario will require investment and expansion of 5-7 integration ports and 4-6 substructure manufacturing/assembly ports, requiring up to

£4bn in port construction investments.[13] However, the economic return is significantly greater, estimated at £14bn-18bn up to 2040,[14] occurring in these coastal regions and devolved nations, including the Celtic Sea and the North of Scotland.

This investment needs to be made in the next 12 months, or it will be very difficult for new port and manufacturing facilities to be constructed in time to deliver 2030 targets.
To date, the UK's commercially independent and market-led ports have to date been unable to take full advantage of the UK Offshore Wind deployment, largely due to a shorter term more commercially-focussed risk appetite than publicly-owned ports in continental Europe, with longer-term investment horizons. The main barriers include:

- **The significant amount of capital investment required** for the upgrades and the need for port developers to achieve secure long-term revenue streams to make such investments,
- **Lack of offtake certainty & investment timing misalignment** - ports require investment around 5 years ahead of the project build, whereas developers generally only commit to a port once they have a CfD awarded (2 years prior to build). This makes it very difficult to build a business case.
- **Planning approval uncertainty** across UK and devolved authorities.

We welcomed the Government's commitment to funding FLOWMIS in the Autumn Budget, but note that this funding is still yet to be finalised. Furthermore, while existing policy actions go some way to reducing the risk associated with barriers to investment, the Government must develop a longer-term, financial support mechanism to go further to enable early investment in these facilities.

We therefore recommend that HMT uses the spending review to:

- Finalise and implement FLOWMIS,
- Commence consultation on a revenue support mechanism for ports.
- Coordinate and align relevant government bodies, devolved administrations and arms length bodies port investment activities to maximise impact, including through crowding in of private investment through bodies such as NWF, Scottish National Infrastructure Bank, Development Bank of Wales and Crown Estates, as well as grant funding.

[13] Floating Offshore Wind Taskforce: Industry Roadmap 2040
[14] Floating Offshore Wind Taskforce: Industry Roadmap 2040

Summary of proposals

Proposal	Key departments	Cost
Ensure that wind has a key role in the Government's emerging Industry Strategy, aligned with the IGP and supported by grant funding.	DESNZ, HMT	£390 mill (committed to by previous Government under 'Green Industries Growth Accelerator')
Increase strategic port capacity through • Finalising and implementing FLOWMIS, • Commencing consultation on a revenue support mechanism for ports. • Coordinating and align relevant government bodies, devolved administrations and arm's length bodies port investment activities to maximise impact, including through crowding in of private investment through bodies such as NWF, Scottish National Infrastructure Bank, Development Bank of Wales and Crown Estates, as well as grant funding.	DESNZ, HMT, DFT, MHCLG	Cost neutral (£ already committed to under FLOWMIS)

Priority Measure: Improving resources in key areas to accelerate the deployment of renewable energy projects and grid infrastructure

The UK needs to deploy record amounts of renewable energy projects in order to achieve our Clean Power Mission, for example, for offshore wind we need to deploy around 6-7GW annually. It currently takes just under 5 years for offshore wind construction (RUK EnergyPulse) and 14 years to build a transmission project.[15] We need to change this to 3 to 4 years for offshore wind and 7 years for transmission projects to enable the UK's 2030 targets.

There is a clear **opportunity for Government support on accelerating construction timelines** to ensure we hit our targets**.** This includes discharging DCO consents, securing further consents and licences, supplier selection and procurement, as well as addressing resource constraints.

In particular, offshore wind projects are having difficulty discharging DCO conditions and associated consents, including marine licences, due to lack of experienced environmental and planning specialists in regulators, SNCBs and other statutory consultees.

Furthermore, significant development of the transmission grid is required to connect and transmit the electricity generated by new renewables required to meet the Clean Power Mission and electrify other industries. This issue is impacting other sectors' access to cheaper, secure energy, essential for growth. With an estimated £54bn investment required in new network infrastructure by 2030, the Government needs to ensure that the relevant bodies are fully resourced to allow the deployment of these critical infrastructure projects.[16] Accelerating grid infrastructure will support the Government's broader missions and objectives, such as improving the NHS and building more housing.

The key solution to these issues is increasing resources in key planning and consenting areas in Ofgem, NESO, key departments, devolved governments, local authorities and relevant nature conservation bodies including SNCBs. Improving resourcing in this area would also **accelerate the planning and consenting for new homes**, another one of the Government's key objectives.

Priority proposal: Increase funding to support resourcing and efficient processes in planning and consenting areas, including key departments, Ofgem, NESO, devolved governments, local authorities, regulators (including the Marine Management Organisation) and Statutory Nature Conservation Bodies, who are critical to CP30.

[15] Nick Winser report.
[16] NESO (2022) Pathway to 2030.

There is an opportunity to support recruitment and retention of senior decision-making environmental specialists in central Government, DAs, regulators and SNCBs by expanding the oil and gas sector specific Specialist Environmental allowance scheme. Offshore wind environmental work is highly skilled and complex - salaries in the private sector are often more than double equivalent public sector roles.

Proposal	Relevant departments	Cost to HMT
Increase funding to support resourcing and efficient processes in planning and consenting areas, including Ofgem, NESO, relevant departments, devolved governments, local authorities and relevant nature conservation bodies including SNCBs. There should be a focus on retaining and recruiting experienced experts within these statutory bodies.	HMT, DESNZ, Defra, MHCLG, devolved governments	£ unknown. These reforms are relatively inexpensive and are critical to helping accelerate renewable energy deployment and maximise growth potential and yield an extremely high return on investment in the UK.

Priority measure: Increase investor confidence

Priority proposal: Remove zonal pricing as an option in the Review of Electricity Market Arrangements

Urgent clarity is needed on the Government's Review of Electricity Markets Arrangements decision, as current uncertainty is impacting investment decisions.

One of the key uncertainties is whether the Government will implement zonal pricing. We strongly recommend that the Government does not implement zonal pricing, as it would jeopardise investment in the renewable energy market and therefore risk the Clean Power Mission for the following reasons:

- Zonal pricing carries **inherently greater risk for renewable generators** than a national market, **therefore impacting investor confidence**. This is because, by design, a zonal market introduces:
    - increased wholesale price risks (due to the greater potential for price changes, volatility / uncertainty, lower prices in some zones)
    - increased volume risks (due to the increased potential for un-compensated for curtailment, changed frequency of negative price periods for CfD generators, uncertainty of ability to sell across zones)
    - increased liquidity and market power risks (due to smaller markets)
    - increased policy change risks (due to the potential for zonal boundary changes and network commitment).
- Investment decisions will therefore be harder, take on more risk (where possible) and therefore **the cost of capital is very likely increase in all versions of a zonal market, which will flow onto bill payers,**
- It will also make investment in renewables less attractive to investors with a lower risk appetite, such as pension funds -noting this goes against the Chancellor's priority to mobilise more pension fund investment into key infrastructure. Even if zonal pricing wouldn't be implemented until after 2030, the cost of capital impacts will materialise straight away. This means that, at a time when we need to attract at least £40bn of private investment per annum to deliver the Government's Clean Power 2030 plan.
- **Frontier Economics and LCP Delta also found that there is a real risk zonal pricing could inflate AR7 bids by more than 20%, with a specific issue of increased volume risk during the CfD period**. Whilst the Autumn REMA Update stated the period after the CfD ('merchant tail') for AR7 projects will have transitional arrangements in place, it has not yet set out how this would be done, nor has it set out whether this would apply to AR8. Developing a CfD bid requires significant engagement with the supply chain in the months and even years ahead of an auction, and as well as adding uncertainty to project and bid development, it is undermining the industry's ability to capture domestic supply chain investment. Critically, with the 'negative pricing rule' in the current CfD design, introducing

zonal pricing introduces significant additional volume risk within the CfD term which will be factored into bids, and is not expected to be resolved until AR9 when CfDs are expected to be decoupled from output with a move to a 'Deemed CfD'. This issue should be a priority focus for Government in the coming months to avoid inflating the costs of AR7 and AR8.

- The cost of preserving investor confidence through legacy arrangements **could outweigh other cost savings.** To preserve investor confidence in the UK market in the event of a move to zonal pricing, it will be essential for legacy arrangements (sometimes referred to as 'grandfathering' arrangements) to be put in place for projects with an agreed route to market. The economics of many projects is also based on a certain level of expected revenue in the merchant tail, which risk being severely impacted without grandfathering arrangements. To date, modelling that shows whole-system cost benefits from zonal pricing does not take into account the cost of legacy arrangements, which is going to be substantial.

Proposal	Relevant departments	Cost to HMT
Remove zonal pricing as an option in the Review of Electricity Markets Arrangements	HMT, DESNZ	No cost

All other measures which should be taken forward by Government, with support from HMT

Below are the remaining holistic measures that HM Treasury (HMT) should undertake as part of the renewable energy package:

Proposal	Key depts	Cost	Justification
Create growth through industrialisation of the UK's renewable energy industry			
Align R&D funding with the Industrial Strategy and the *Industrial Growth Plan,* including supporting a new late-stage testing facility to help industrialise the floating offshore wind market.	DESNZ, DSIT, HMT	£unknown	The UK has a world-leading role in IP creation and test and demonstration facilities at OREC's Blyth and Aberdeen. However, the UK tends to invest in early-stage research and innovation, and faces challenges in bringing that offshore wind innovation to market and commercialising it. Further action is required to ensure there is the long-term conversion of British IP into globally deployed innovations, reducing the commercialisation 'valley of death' and making the UK the destination for offshore wind innovation. To take a world-leading position in offshore wind research and fully realise the potential of the investment in disruptive technologies identified in the Industrial Growth Plan including floating offshore wind, the UK needs more aligned R&D funding. This should include funding a dedicated collaborative hub to facilitate innovation. The 'WInDD Hub' aggregates the UK's capabilities and capacity to design, demonstrate and

Proposal	Key depts	Cost	Justification
			develop innovative technologies across blades, towers, cables, foundations, installation and O&M techniques. A core part of the WInDD Hub is an Advanced Turbine Technology Institute (ATTI) to develop the next generation of turbine blades & components.
Align the Clean Industry Bonuses scheme with the Industrial Strategy and the *Industrial Growth Plan.*	HMT, DESNZ, DSIT	No direct cost to HMT	The Government should ensure that the Clean Industry Bonus scheme is clearly linked and aligned to the objectives of the IGP, supporting a strategic approach to the development of the UK's renewable supply chain. the CIB scheme should be expanded to include R&D and skills for future allocation rounds.
Grow the clean energy workforce			
Establish the supply chain and workforce industry forum for key Clean Power 2030 to facilitate industry input into and action on cross-sector workforce issues and enable the sector to test innovative skills approaches	HMT, DESNZ	Cost neutral	The offshore wind industry set to employ 100,000 people alone by 2030, with opportunities for workers transitioning from the oil and gas sectors, and the onshore wind sector is set to employ 27,000 jobs.[17] However, there is already a huge demand for, and lack of skilled workers to build new renewable energy projects. It is therefore essential that the Government work with industry to train and employ new and existing workers to ensure that the Clean Power Mission is delivered on time.

[17] OWIC Skills Intelligence Report 2023.

Proposal	Key depts	Cost	Justification
			With 80% of the workforce required for 2030 already in the labour market, there **is a huge opportunity for workers in existing industries that are looking to transition to a new job, for example, in the military, or those working in industries that are scaling down**, such as fossil fuel industries. The Government must incentivise employers and apprenticeships in the skills where there is the highest demand, whilst simultaneously encouraging secondary school and tertiary education students to pursue careers in this critical industry. Addressing the skills shortage requires Government to work across multiple departments (DESNZ, Defra, DFE, DWP, HMT and MHCLG) and closely with industry as well as with education and training providers. The Supply Chain and Workforce will allow industry input into and action on cross-sector workforce issues and enable the sector to test innovative skills approaches.
Development of integrated regional skills hubs, bringing together employers, training providers, employment support provision to ensure local communities and target groups benefit from opportunities in growth industries, devolved funding and enhanced training provision.	DESNZ, Defra, DFE, DWP, HMT and MHCLG	c£4m	This integrated system would see training mechanisms, employer incentives, qualifications and programmes (eg bootcamps, sector-based work academies etc) working in tandem alongside employers to secure a workforce with the necessary skills that supports delivery of the Clean Power Mission. It should be flexible enough to respond to local skills needs but operate within a national framework, across the four nations, to meet national level and energy-

Proposal	Key depts	Cost	Justification
			sector-wide skills gaps and support regional and devolved jobs. This should be done by the supply chain and workforce industry forum as part of the Clean Power 2030 Plan.
Building on existing workforce demand data by rapidly identifying supply side information on adjacent sources of labour and sectors experiencing decline where these is opportunity to reskill people and or attract new talent	HMT, DESNZ,	Departmental prioritisation	There is a lack of supply-side data to enable effective gap analysis to understand where these skills can come from within the existing labour market. There is also a lack of analysis of adjacent sectors from which workers could reskill to work in renewable energy, such as the oil and gas, automotive, manufacturing and other carbon intensive sectors or sectors in decline. This information is key as 80% of the workforce required for 2030 is already in the labour market.[18] Government can play an important role in understanding the impact of the labour supply picture and transition of workers from other industries.
Leverage DESNZ's work on transitioning of energy workers with additional funding, to enable further development on career pathways, recognition of standards and engagement across wider sectors.	DESNZ, HMT, Scot Gov	C.£1m per OEUK estimate	Work has already commenced between DESNZ and industry to help oil and gas workers access opportunities in clean energy jobs by launching a 'skills passport'. Oil and gas workers will be able to access the skills passport online, which will initially help them identify routes into several roles in offshore wind including construction and maintenance. **This work should be leveraged by**

[18] https://www.cipd.org/uk/about/press-releases/171122-cipd-autumn-statement-response/.

Proposal	Key depts	Cost	Justification
			Government and expanded to open up more career pathways and target other industries too.
Increasing investor confidence			
Amend CfD parameters including using market reflective reference prices, realistic load factors and ring-fencing emerging technologies to ensure maximum procurement, including tidal and floating offshore wind test and demonstration projects.	DESNZ, HMT	Policy ask/no direct cost	Historically, the success rate for procurement of eligible projects in CfD auctions has fallen short of the level of capacity required to meet the Clean Power Mission targets. This can be partly attributed to the fact that reference price and load factor assumptions have been unrealistic and not market reflective, acting as a major barrier to deployment by significantly overestimating the cost of renewable energy. Whilst intended to act as a backstop for consumer protection, these parameters in reality massively overestimate the cost of CfD assets. The Government should collate a selection of trusted independent price curves to arrive at a weighted average figure, a methodology already used in other Governmental price setting approaches**.** Amending the process of setting parameters for the CfD allocation framework would utilise budget more efficiently and deliver more capacity across all technologies. We believe there is a strong case for reforming the process of setting these parameters. This would see explicit reference to external price projections, possibly through a blended average of commercially available curves, to engender

Proposal	Key depts	Cost	Justification
			greater transparency whilst still ensuring that potential levy costs are appropriately minimised.[19] **Floating offshore wind** To ensure that the UK can scale up and seize the economic opportunity that comes from leading the world in floating offshore wind, the UK first needs smaller, 'stepping stone projects' to achieve bankability for technologies that will enable cost reduction, UK supply chain development, deployment at scale and, ultimately, savings for bill payers. Due to the very different cost structures and associated risks of these stepping-stone projects, there are limits to the potential for delivering these projects through the current CfD auction process, as evidenced by the past three auction rounds. Future CfD rounds need dedicated minimum stepping stone projects, appropriate delivery years and appropriate budget that will enable delivery of a predefined portion of minimum at ASP levels.
Modernise the CfD scheme by setting an auction schedule with clear GW targets (informed by the CP30 targets) starting from Allocation Round 7 out to at least Allocation Round 10.	HMT, DESNZ	No cost/policy ask	To achieve the Clean Power Mission 2030, the UK needs to focus on rapid investment and deployment of renewable energy projects – for example, we need to procure 6-7GW of offshore wind annually to hit the Clean Power Mission targets.

[19] For more details, please see here: ruk-cfd-reform-report-final.pdf

Proposal	Key depts	Cost	Justification
			However, as discussed above, the CfD, is procuring at rates well below this. Currently, projects have no view of CfD procurement beyond the current auction. An offshore wind project can develop through leasing, planning consents and grid development for 6-8 years, only to understand its ability to secure a CfD contract just 3-6 months before CfD bidding. A consistent, visible pipeline of projects means more business and investment certainty, operating alongside an industrial strategy to encourage the scaling up of the wind energy supply chain, as well as scaling up a skilled workforce. To stop the boom-bust cycle, provide more certainty, and accelerate deployment with an ambitious programme of CfD auctions, **we recommend Government sets out clear GW targets for established technologies (Pot 1), emerging technologies (Pot 2), and offshore wind (Pot 3) out to at least 2030**, **starting with Allocation Round 7**. These targets could be set out five years in advance and dynamically adjusted on a rolling basis in response to each auction outcome, and **should be supported by sufficient budgets in each allocation round.** This protects Government from being locked into over/under-procurement based on the pipeline of eligible projects in a given year and mitigates unexpected

Proposal	Key depts	Cost	Justification
			shortfalls in the pipeline of eligible projects. It also ensures Government can maintain competitive tension to help provide value to consumers. This certainty is fundamental for supply chain companies as it allows them to more confidently invest in new facilities or expanding existing facilities, knowing there is a clear and predictable annual pipeline of projects coming through.
Ensuring route to market for emerging technologies including floating offshore wind, long duration energy storage and green hydrogen. Actions: • Deploy early funding via Great British Energy to de-risk emerging technologies such as floating offshore wind, hydrogen production, and storage, as well as LDES, to maximise growth of these sector and help ensure that the energy system is resilient, secure and affordable as demand continues to grow in the 2030s and beyond. • Confirm the funding model, and sufficiently fund future Hydrogen Allocation Rounds to facilitate green hydrogen sector growth in alignment with Government targets. Reform the Hydrogen Production Business Model to	DESNZ, HMT	£unknown	Green hydrogen (hydrogen created by electrolysis using renewable electricity) and long duration energy storage technologies (pumped hydro and lithium-ion batteries, and a range of innovative technologies such as flow batteries, liquid air storage and compressed air storage), in conjunction with short-duration flexibility **are critical to a functioning Clean Power Mission**. By absorbing and storing electricity, these technologies will be essential during times where there is too much or not enough renewable energy generation with an electricity system where 95% of generation comes from renewable energy. These technologies cost-effectively balance the system and maximise the us-able output from our wind and solar resources. This will not only result in secure energy but will lead to cost savings—for example, deploying up to 20GW

Proposal	Key depts	Cost	Justification
incentivise hydrogen production to respond to excess renewable generation. • Develop an ambitious strategy to enable the development of a hydrogen transmission network, with pipelines linking Scotland to England and Wales to access green hydrogen. This should include plans to connect to large scale hydrogen storage, such underground salt caverns, to demand, including electricity generation under the forthcoming Hydrogen to Power Business Model. • Commitment to future procurement of LDES through future cap and floor windows to support the LDES sector by enabling both debt and equity finance, thus reducing cost of capital for these projects.			of long duration energy storage by 2050 **could lead to system costs savings of up to £24bn**.[20] Not only this, but with the right framework, the UK's hydrogen sector could add £7bn to the economy by 2035 and could create 30,000 jobs.[21] Investment in pumped hydro storage could deliver £492-550 million GVA and 8,470-9,400 jobs annually[22]. However, as these technologies are emerging, they are currently cost intensive and slow progress in developing and accelerating business models is holding these sectors back and risking the delivery of the Clean Energy Mission. There is a risk that the investment community may not be confident in these new technologies and markets early enough to support delivery for Clean Power 2030.
Removing barriers to accelerate deployment			
Ensure environmental regulatory framework for renewable energy projects is proportionate and	HMT, Defra, DESNZ	£unknown	Limited ecological compensation options are leading to consenting delays and compensation delivered in a piecemeal fashion at a disproportionate cost for the

[20] Scenario Deployment Analysis for Long-Duration Electricity Storage
[21] splitting-the-difference-hydrogen-co-report.pdf
[22] The Economic Impact of Pumped Storage Hydro

Proposal	Key depts	Cost	Justification
clear, to provide certainty to developers and investors by: • **First, urgently implementing,** and then continuing to develop and operate the **Marine Recovery Fund and Nature Restoration Fund** to strategically deliver a wide range of marine, terrestrial and intertidal compensation and nature enhancement measures; • Ensure sufficient strategic compensation measures are available in the Defra Library of Strategic Compensation measures for the MRF to deliver, aligned with Scotland's Library and MRF. By commissioning physical surveys, scientific evidence and project management support. Support ongoing management and monitoring of UK network designated sites to provide a robust baseline for renewable development, including setting out a clear vision for the UK's marine recovery ambition alongside net zero targets.			overall environmental benefit. Some projects with compensation conditions in their DCO have found these impossible to deliver, for more information please see Annex A. The Marine Recovery Fund (MRF) is planned to be introduced in late 2025, however it will need robust support in the establishment phase (likely 2026-2028). Addressing these issues is critical to ensuring that we deploy renewable energy projects at the rate necessary to hit our Clean Power Mission, as well as adhering to our environmental obligations. Defra is currently being investigated by the Office for Environmental Protection in relation to the UK's progress towards Good Environmental Status. A clear vision for marine recovery alongside net zero is needed to align resources and gain support from nature conservation interested parties.
Radar mitigation measures agreed by Government must be funded and implemented	HMT, MOD, DESNZ	£ already committed to by Government	We welcomed the Government's decision to identify, procure and implement an air defence radar mitigation that is funded and delivered by government last year, and were encouraged to see this reaffirmed in the recently

Proposal	Key depts	Cost	Justification
			published **Clean Energy 2030 Action Plan**. However, funding has not yet been finalised. **Any delay brings a key risk to programme delivery for offshore wind, and therefore the Clean Power Mission**, and we urge all government parties to find an acceptable funding solution. AR6 winning projects require sufficient certainty of generation before key investment decisions can be taken. **It is therefore imperative that HMG finalises the funding source for this project urgently**. If left unresolved, this same risk will also impact AR7 projects over the coming months.
Accelerate Offshore Transmission Owner (OFTO) regime reform.	DESNZ	Policy ask	Without OFTO regime reform, offshore wind assets will struggle to connect to the UK's electricity system and it will be unlikely that the OFTO regime as it currently exists was designed in 2009 to service a fledgling offshore wind industry with expectations as low as 10GW offshore wind by 2030. The sheer scale and complexity of the current generation of projects, as well as the entrance of new technologies such as floating offshore wind and technological advances in colocation and hybrid assets, is beyond what was anticipated by the current regime. It is clear there is a requirement for reform to the OFTO regime to ensure that it is fit for purpose to meet the needs of a

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			mature offshore wind industry, as well as the planned co-ordinated offshore network.
The Government should signal its intent to address the lack of vital offshore wind vessels in UK shipyards to service offshore wind.	HMT, DfT, MOD, DESNZ	£ unknown	Vessels are absolutely critical to the installation and ongoing operation of these wind farms and ensuring that the Clean Power Mission is delivered. The Offshore Renewable Energy Catapult (OREC) assess that by 2040, the global offshore wind industry will require approximately 1,000 to 1,500 Crew Transfer Vessels (CTVs) and over 300 Service Operation Vessels (SOVs). There is currently a significant capacity constraint in global shipbuilding to deliver the vessels required for the UK to achieve its ambitious targets. With some direct government financial and policy support, UK shipyards have the capability, capacity and geography to address the global vessel build capacity constraint whilst also providing jobs and economic growth in deprived coastal communities and a positive financial return to the Exchequer. The CTV build opportunity alone is assessed at being worth well over £2billion.