RenewableUK

2024 Manifesto

For an era of delivery and growth

Foreword

Leading up to the election, there are two big questions dominating the minds of the UK public – **"how are we going to bring the UK economy back to growth and prosperity?"** and **"how are we going to deal with pressures on the cost of living?"**

I find it incredibly motivating to lead a sector which can offer clear answers to those questions, whilst keeping our obligation to future generations by dealing with the climate crisis. Our transition to clean energy can bolster our energy security, provide lower-cost electricity to ease the cost of living for households, boost the competitiveness of UK businesses and supply chains and support tens of thousands of jobs across the country.

With over 100GW of renewable energy generation in the pipeline across the four nations, industry is ready to partner with the next government to make this happen. We've demonstrated that through our recent **Offshore Wind Industrial Growth Plan**, setting out a blueprint for industry and Government to mobilise £3bn of finance to triple UK supply chain manufacturing in offshore wind – boosting the economy by a further £25bn between now and 2035. And now we're building on that through this manifesto, which is a holistic programme for Government.

It won't be easy: **we need to build a considerable amount of renewable energy projects, both on and offshore, and the infrastructure to support them, faster**. We will need a forward-thinking and ambitious government to get us there. The next government will need to think about how we remain competitive in the global race for skills and supply chains and how we reform our planning system to enable communities to benefit more from the transition.

We need the next government to have a delivery mindset, **asking 'how', not 'if'**, and acting on the full suite of reforms recommended by Tim Pick, who was appointed as UK's Offshore Wind Champion against the backdrop of the Government's Energy Security Strategy, and whose independent report on the sector remains a guiding star.

If we get this right, the next five years will see a massive transformation of the UK's energy system, particularly with the increase in electrification across homes and industry. There will be times when the pace and extent of change require politicians to make difficult choices, make the case for new infrastructure and confront the voices who resist the energy transition – therefore the next government needs to be consistent and bold with their support for the clean energy transition and steadfastly committed to the plan. Communities are key to the UK's energy transition and need to be brought along on the journey. We look forward to working together to make this happen.

Dan McGrail
CEO, RenewableUK

Our five requests of the next Government

1

A clear and coordinated plan for delivering our pipeline of renewable energy projects.

2

An attractive business environment focused on mobilising private investment.

3

Efficient frameworks that accelerate deployment of net zero infrastructure.

4

Scaled-up supply chains and skills capabilities that match our ambitious targets.

5

A secure energy system through forward planning and investment.

Renewable energy — the engine of economic growth and prosperity

Successive governments have recognised that delivering the energy transition is not only a climate imperative but a good economic deal. As the UK accelerated the deployment of renewable energy and cut the costs of doing so, it produced a range of benefits: **job creation across the country, economic regeneration in coastal communities, investment in supply chain companies and new manufacturing, more affordable bills for families and businesses, and greater energy security.**

The latter became increasingly significant following Russia's invasion of Ukraine. With a strong foundation to build on, the next government now needs to accelerate the transition, create the conditions for attracting record levels of investment into the sector and maximise the socio-economic benefits that come with it. With enviable renewable energy resources across Scotland, Wales, Northern Ireland and England, **each of the four nations has a part to play in seizing this opportunity.**

This manifesto shows why accelerating the energy transition should be a priority for the next government.

Photo: Statkraft

What investment in renewables can deliver for UK plc

Renewable energy helps bill payers and provides energy security

Renewable energy strengthens the UK's energy security, reducing its dependency on foreign energy sources, to the benefit of billpayers. Even before the gas crisis, renewables had already **saved consumers over £6.1 billion on their bills** (equivalent to £221 per household) in 2021 by displacing gas.[1] Renewables helped the UK avoid the need to buy nearly £12.5 billion of gas in 2022.[2]

Renewable energy creates jobs, regenerates communities and delivers economic value.

A thriving renewable energy industry, coupled with increasing international demand for renewable energy components, presents an industrial opportunity for the UK's domestic supply chain. ***The Offshore Wind Industrial Growth Plan*** demonstrates the scale of opportunity the UK could grasp by coupling deployment with an industrial strategy — trebling the UK's offshore wind manufacturing base, **boosting the UK economy by a further £25bn between now and 2035**. This is a return to the UK economy of £9 for every £1 invested. The UK can also capitalise on being a frontrunner in supply chains and expertise for emerging technologies, including **green hydrogen, tidal stream and floating offshore wind.**

A thriving renewable energy industry and industrial ecosystem means more jobs. **Offshore wind alone currently employs around 30,000 people** and has the potential to create an **additional 70,000 jobs by 2030**, while the **onshore wind sector could support over 27,000 jobs** by 2030.[3] These jobs will be spread across the UK, and many will be in coastal areas. For floating wind in particular this includes areas near deployment such as northern Scotland, North East England and near the Celtic Sea.

Renewable Energy has environmental & community benefits

In addition to the additional economic activity in local areas, **renewable energy projects can bring tangible benefits to host communities**, such as community benefit funds, energy bill discounts, nature restoration schemes, and more. Investment in the UK through community benefit fund schemes for onshore wind alone is estimated to be **around £75 million a year**, which could see billions of pounds invested in communities by 2050.[4]

Industry's commitment to the environment goes beyond the reduction of carbon in the atmosphere. **We know the UK is one of the most nature-depleted countries in the world**. Renewable energy projects already work in harmony with the environment and **can be a positive influence on the UK's biodiversity target**, for example through restoration of peatland in Scotland and Wales, and contributing to the reintroduction of species such as Black Grouse and Pine Marten. Through collaborative action with environmental organisations and government, renewable energy can not only address climate change, the single greatest threat to nature **but contribute positively to the local environment.**

Renewable energy reduces carbon emissions

Renewable energy is the biggest contributor to the UK's 45% reduction of carbon dioxide emissions since 1990, by replacing coal and gas. The energy transition also underpins the UK's ability to meet net zero: **many sectors including transport, steel and chemicals depend on the supply of cheap, clean electricity or green hydrogen** to decarbonise and remain competitive, which is why timely renewable deployment is essential.

1 *Renewed Importance: How Investing in Renewables Cuts Energy Bills (Onward, 2022)*

2 *Analysis: Why UK energy bills are soaring to record highs—and how to cut them (Carbon Brief, 2022)*

3 *Offshore Wind Skills Intelligence Report (OWIC, 2023);*
Onshore Wind Industry Prospectus (RenewableUK, 2021)

4 *Onshore Wind in Wales: How our sector works with communities (RenewableUK Cymru, 2023)*

Finally, investment in clean energy is popular with the public

A recent poll of over 10,000 people in the UK, conducted by Opinium for this manifesto, found that:

Voters want the Government to prioritise addressing recent energy cost rises, and 70% of voters believe the development of renewable energy should be a "major factor" in future Government decisions to deliver lower energy bills.

Which of the following aspects of cost of living should the next Government prioritise efforts to address?

Electricity / heating costs	36%
Food / grocery costs	28%
Housing costs	18%
Childcare costs	4%
Transport costs	3%
Other (please specify)	5%
None of the above	2%
Don't know	4%

Do you think the development of renewable energy is a significant factor to consider in the future Government's decisions about...

	Energy bills	Increasing jobs in the UK	Driving economic growth outside of London and the South East	Energy security	Tackling climate change
A major factor	70%	51%	46%	60%	53%
A minor factor	18%	31%	29%	24%	28%
Not a factor at all	4%	6%	8%	4%	10%
Unsure	8%	11%	17%	12%	9%
NET: Is a factor	88%	83%	75%	84%	81%

Voters are more inclined to want the Government to focus on “renewable energy and other green industries” than the other leading sectors of the UK economy, driven by its significance for economic growth across the UK.

We would like you to look at the following list of industries and which of them you think is best fits each statement. “Which of the following industries...

	... is most likely to drive jobs and investment into areas outside of London and the South East?	... is more like to encourage growth in the UK economy overall?	... do you think Government should focus its attention on, to ensure that the industry continues to grow in the UK?
Renewable energy and other green industries (e.g. offshore wind and electric vehicles)	28%	25%	34%
Advanced manufacturing (such as new production methods which increase automation, use digitisation etc)	17%	20%	15%
Digital technology (such as E-Commerce and robotics)	10%	12%	8%
Life sciences (such as pharmaceuticals and medical technologies)	9%	11%	13%
Creative industries (such as film production, performing arts and fashion)	8%	6%	7%
None of these	4%	4%	4%
Don’t know	25%	22%	19%

How do we deliver these benefits?

To achieve this era of growth, we need to see an urgent and accelerated pace of deployment of energy, whilst recognising that the demands on the electricity system are rapidly increasing—the Government's Net Zero Strategy set out that electricity demand will increase by 40-60% by 2035.[5]

The next five years are critical if we are to realise these benefits, let alone remain on track with decarbonisation targets. We'll need to deploy a wide mix of renewable energy technologies, including fixed and floating offshore wind, onshore wind, solar, tidal stream, green hydrogen and storage, enabled by a significant build-out of new grid infrastructure and the growth of flexibility services.

The renewable energy industry across the four nations stands ready to work with the next UK Government to realise the full suite of economic, environmental and community benefits provided by a renewable-powered UK. This manifesto will explain how the next UK Government can work with industry to unlock these benefits.

[5] *Net Zero Strategy: The Journey to Net Zero (UK Government, 2022)*

The five key areas the next Government needs to address:

1. **A clear and coordinated plan for delivering our pipeline of renewable energy projects.** This requires producing an 'Allocation Round Roadmap' which sets out how much renewables should be invested in annually to hit targets, better cross-government coordination to deliver them and strong partnerships across the devolved nations.

2. **An attractive business environment focused on mobilising private investment,** with a modernised Contracts for Difference scheme that enables consistent volumes of renewables to be deployed year on year and an evolutionary reform of electricity market arrangements, which addresses inefficiencies in the current system without significantly increasing the cost of capital.

3. **Efficient frameworks that accelerate deployment of net zero infrastructure.** Renewable energy and grid need to be build in parallel, guided by a Strategic Spatial Energy Plan, with clear and predictable frameworks for addressing environmental and community impacts. Unblocking the deployment of onshore wind in England will be the first step towards ensuring our planning system is fit for purpose.

4. **Scaled-up supply chains and skills capabilities that match our ambitious targets.** This should be shaped by the Industrial Growth Plan, which provides the clearest assessment to date of how the UK can triple its renewable energy manufacturing capacity in the next decade, through strategic investment in a globally competitive supply chain. Achieving this vision will need to be supported by investment in key infrastructure such as ports, and a more concerted, cross-sectoral effort to cultivate a robust skills base across the country.

5. **A secure energy system through forward planning and investment.** This will require frameworks that enable greater levels of private investment to flow into technologies like green hydrogen and long duration energy storage and the removal of barriers to the development of flexibility solutions such as energy parks, to ensure our future energy system is efficient, cheaper and secure.

A clear and coordinated plan for delivering our pipeline of renewables projects

1

To ensure the UK reaches its ambitious technology and net zero targets, the next government needs to set a clear pathway of how we achieve these ambitions. The next government should aim to **provide as much long-term clarity on the future pipeline as possible**: presently, the UK only has targets for offshore wind, hydrogen and Scottish onshore wind until 2030. **Clear technology targets beyond 2030, visibility of annual pipelines** (through indicative budgets and capacity targets) **and seabed leasing rounds can provide certainty for investors and industry, and allows the scaling up of the supply chains, port facilities and workforce necessary to build these projects.**

Importantly, building a renewables-based system **requires much greater levels of cross-government collaboration.** Currently, the deployment of renewable energy and enabling infrastructure touches several facets of the civil service such as planning, environment, energy and even the Ministry of Defence. Falling under the responsibility of several departments and local authorities can lead to a break down in priorities, communication and cause unnecessary delays. **Improved coordination and robust guidance from Cabinet Office or No.10 policy unit** would help facilitate a more efficient route to achieving decarbonisation targets.

The next Government must also partner with **Scottish, Welsh and Northern Irish governments to ensure the energy transition opportunities and benefits can be grasped across the regions and nations**, bringing benefits to every corner of the UK. With significant capacity in the pipeline in Northern Ireland, Wales and Scotland, **it has never been more important for governments and authorities to work together.** This collaboration can be achieved through the establishment of a four-nations taskforce. It is also important that the next government works closely with EU counterparts to ensure alignment between countries.

A clear and coordinated plan for delivering our pipeline of renewables projects

1

Key recommendations

1. Set clear technology targets to 2030 and beyond for all key technologies

First 100 days

- Extend the strategic, plan-led approach to meeting 2030 offshore wind and hydrogen targets by putting in place technology targets for 2035 and 2040
- Creating targets for onshore wind, tidal, long duration energy storage and floating offshore wind. All targets should be linked to the Strategic Spatial Energy Plan (SSEP) in collaboration with the National Energy System Operator (NESO) and The Crown Estate.
- Outline how supply chains and skills will be supported to be able to meet the target – see supply chain and skills recommendations below.

2. Set specific targets for the volume of renewables Government intends to develop annually over the next five years and outline plans for future seabed leasing rounds

First 100 days

- Produce an "Allocation Round roadmap", committing to ambitious target volumes to ensure future auctions deliver the volumes needed to meet technology-specific targets and maximise the investment in supply chains through the Offshore Wind Industrial Growth Plan and Sustainable Industry Rewards framework.

First 100 weeks

- Work with The Crown Estate and the Crown Estate Scotland to provide more clarity on time-scales and capacity of future seabed leasing auctions for offshore wind, with visibility of volumes at each auction.
- Collaborate with the Floating Offshore Wind Taskforce to establish a "floating offshore wind cost reduction monitoring framework" to ensure the sector is supported by Government to deliver successful and sustainable cost reduction.

3. Improve coordination of government and arms-length bodies

First 100 days

- Through the Cabinet Office or No.10 policy unit, coordinate and provide guidance for cross-departmental communication, collaboration and planning, allowing for the smooth delivery of energy system transformation.

First 100 weeks

- Ensure relevant government departments, local authorities and relevant statutory conservation nature bodies are appropriately resourced, including a focus on up-skilling and retention of staff for relevant to prevent unnecessary delays in key processes for renewable energy projects, for example, planning and permitting.

4. Partner with devolved nations and international partners to accelerate renewable energy deployment

First 100 days

- Create a collaborative four-nations taskforce to address strategic issues and accelerate renewable energy deployment across the UK.

First 100 weeks

- Ensure NESO & the Energy Department are fully engaged with EU colleagues on cross-border issues such as Carbon Border Adjustment Mechanisms, green hydrogen standards, grid and spatial planning.

By the end of Parliament

- Establish clear accountability mechanisms for devolved regions on progress on zero-carbon electricity and net zero targets.

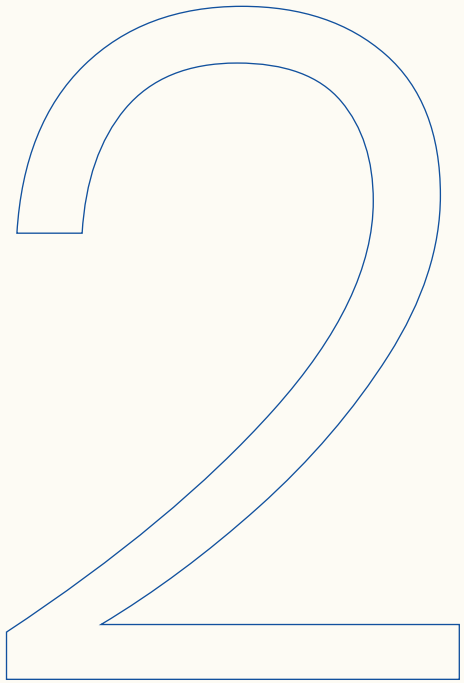
An attractive business environment focused on mobilising private investment

Regulatory and market certainty is key for attracting investors in renewable energy projects and has been essential in giving the UK a competitive edge in attracting mobile capital. With fierce international competition for investment, **the UK's electricity market must be as attractive as possible.**

This can be achieved by ensuring that the **Contracts for Difference (CfD) scheme**, which has to date been instrumental in securing investment in the majority of the UK's renewable energy capacity, retains its effectiveness. The next government needs **to ensure the CfD framework responds to the market and sets parameters to maximise renewable energy investment,** as well as **supporting emerging trends such as co-location and technologies including floating wind and tidal stream.**

In reviewing the electricity market arrangements, the next government **must apply an evolutionary approach to market reform to de-risk investment.** The next government must also **address the unpredictability of the charging regime** applied to assets when connecting to the grid which has currently led to significant and unexpected increases in transmission charging costs in some areas, particularly Scotland. If unaddressed, this could act as a big deterrent to investment.

An attractive business environment focused on mobilising private investment



Key recommendations

1. Modernise the Contracts for Difference scheme

First 100:

- Commit to ensuring that future CfD Allocation Round parameters, including Administrative Strike Prices and budgets, are set to maximise investment in renewable energy projects to deliver renewable energy targets and ambitions, and are developed transparently in consultation with industry.
- Continue support for innovation in emerging technologies such as floating offshore wind and tidal through CfDs and set parameters that enable these technologies to deploy at scale.

First 100 weeks:

- Consider how best to evolve the CfD to ensure it does not just deliver competitive tension but also enables large volumes of renewables to clear at each auction, delivering economies of scale and the right signals for supply chain investment. For example, moving to a 'hurdle-rate CfD' (as recommended by Offshore Wind Champion Tim Pick)[6] could ensure that we mobilise even more private investment through future CfD rounds and could offer clarity on future pipelines to mobilise supply chain investment.
- Ensure that Sustainable Industry Rewards (SIRs) are clearly linked and aligned to the objectives of the Industrial Growth Plan (IGP) so that the SIR framework supports a strategic approach to developing the UK's supply chain.

2. Adopt an evolutionary, not revolutionary approach to market reform, and create an enduring regime that continues attracting investment in our future electricity system.

First 100 days:

- Ensure that any reforms to the electricity market, for example through the Review of Electricity Market Arrangements (REMA), prioritise investor certainty and takes an evolutionary, not revolutionary, approach to market reform.
- The final REMA package should prioritise reforms that guarantee a route to market for long duration energy storage and flexibility (e.g. cap and floor for long duration electricity storage and dispatchable power agreement for hydrogen to power) or that create different revenue streams for key technologies (e.g. by enabling greater participation of flexible low carbon technologies in the Optimised Capacity Market). These will also be essential for attracting additional investment in technologies that will be essential for delivering a cost-effective, reliable energy system.
- Urgently implement short-term measures to reduce volatility and improve predictability of transmission network charges.

By the end of Parliament

- Implement long-term reform to Transmission Network Use of System (TNUoS) charges, to be more predictable and proportionate to provide a useful signal to developers, providing better value for customers.

[6] *Accelerating deployment of offshore wind farms: UK Offshore Wind Champion recommendations (Tim Pick, UK Government, 2023)*

Efficient regulatory frameworks that accelerate the deployment of net zero infrastructure

An efficient and consistent planning and consenting regime in each of the four nations is critical to the accelerated deployment of renewable energy projects and associated infrastructure in the UK.

Firstly, it is important to take a **holistic and strategic approach to planning the future energy system**, as recommended by the Electricity Networks Commissioner. There are competing uses and priorities for onshore and offshore spaces, such as aviation and marine industries. The **use of strategic planning**, such as the Strategic Spatial Energy Plan, Central Strategic Network Plan and the Marine Spatial Prioritisation programme, as well as clear policies, will minimise uncertainty and delays in the deployment of key infrastructure and deliver a good balance between the needs of different users and industries.

Furthermore, to connect and transmit the electricity generated by new renewables required to meet the UK's targets, **significant development of the transmission grid will be required**, and the planning system should enable timely delivery of this infrastructure. The rollout of new grid infrastructure needs to be in place ahead of renewable developments, therefore implementation of the commitments outlined through both the ***Transmission Acceleration Action Plan*** and ***Connections Action Plan*** is essential.

The current planning regime must also be updated to **recognise co-located and emerging renewable energy technologies to allow for smoother and more efficient deployment.** Allowing the co-location of different renewable technologies with storage options, such as batteries and green hydrogen at the same site, is a great opportunity to create a more dynamic and lower-cost electricity system that uses both space and resource as efficiently as possible. **Co-locating solar projects with battery storage could reduce the cost of building and running battery projects by 50%.** And cumulatively, research by the Carbon Trust suggests that **enabling a more flexible energy system with storage would save the UK up to £16.7 billion a year** by 2050 in electricity system costs, ultimately benefitting bill-payers.[7]

The next government must also ensure that the **environmental regulatory framework for renewable energy projects is proportionate and clear**, to provide certainty to developers and investors.

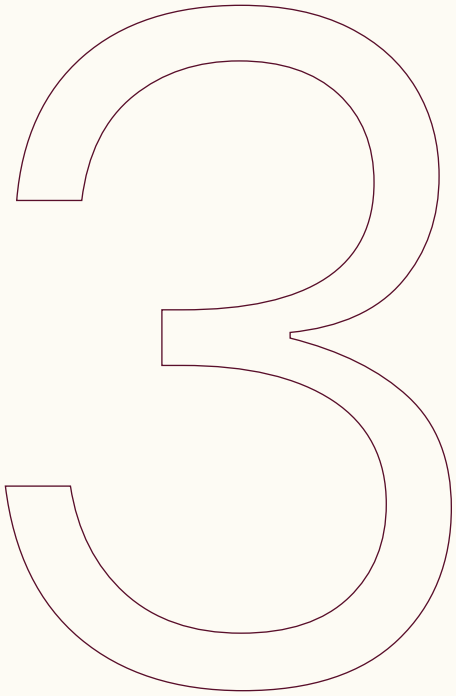
What's more, the planning regime still overly restricts onshore wind in England. Rapidly deployable, one of the lowest-cost electricity generation technologies in the UK, and popular with 74% of the UK public (including 83.1% of 2019 Conservative voters), it is clear that **the next government should enable the growth of onshore wind across the UK.**[8]

Host communities must be also brought along on the journey for new renewable energy projects and transmission infrastructure, with early, transparent and ongoing consultation.

[7] Making the most of renewables: the role of onshore co-location in accelerating an integrated energy system (RenewableUK, 2024)

[8] Polling in every constituency in Britain shows strong support for wind farms to drive down bills (Survation, RenewableUK, 2022)

Efficient regulatory frameworks that accelerate the deployment of net zero infrastructure



Key recommendations

1. Apply strategic planning to grid infrastructure and renewable energy deployment

First 100 days

- Support the National Energy System Operator to produce a Strategic Spatial Energy Plan, with adequate consultation with industry on the methodology and the public on the proposals.
- Deliver on the Marine Spatial Prioritisation programme, and work with The Crown Estate to deliver a Marine Delivery Route map to balance competing demands on seabed use and provide clarity to project developers.

By the end of Parliament

- Collaborate with industry to implement the Transmission Acceleration Action Plan, halving the time to build new transmission infrastructure from 14 years to 7 years, and the government and Ofgem's joint Connections Action Plan to more effectively manage the transmission queue of over 700GW that is holding up £15bn worth of investment in offshore wind.
- Publicly clarify that renewable energy infrastructure should be prioritised within all offshore energy spatial plans.

2. End the stifling restrictions on onshore wind in England and support the growth of the industry.

First 100 days:

- Treat onshore wind like any other infrastructure in the planning process by removing footnotes 57 and 58 in the National Planning Policy Framework (NPPF).
- Set up an Onshore Wind Taskforce and deployment roadmaps, dovetailing with Onshore Wind Sector Deal in Scotland, including a clear UK-wide onshore wind target.

First 100 weeks:

- Work with industry to develop a clear Onshore Wind Policy Statement for England and the UK demonstrating the Government's commitment to onshore wind and reintegrating the technology into National Policy Statements (NPSs) and the Nationally Significant Infrastructure Project (NSIP) regime.

3. Update existing planning frameworks

First 100 days

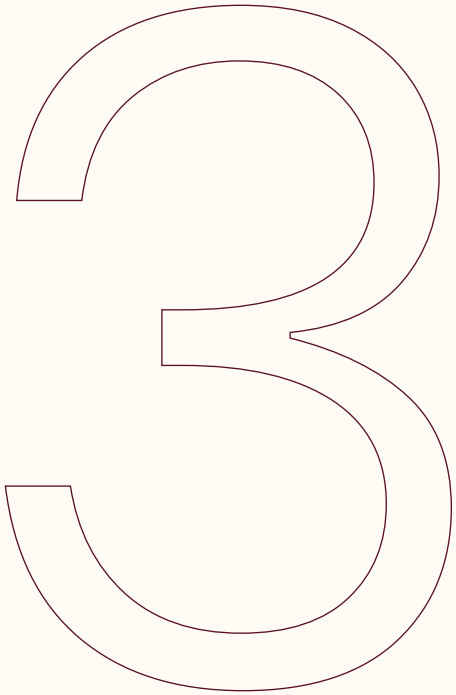
- Review and update the National Policy Statements (NPS) to support the rollout of grid infrastructure and recognise its importance as critical national infrastructure.
- Amend and update the existing planning framework and guidance so that it is connected with programmes of work such as the Strategic Spatial Energy Plan and Centralised Strategic Network Plan, which will provide a blueprint for our future network and system plan.
- Planning frameworks should also be updated to enable the deployment of newer technologies and trends such as green hydrogen and co-location, to create a simpler, faster and more predictable regulatory framework.[9]

[9] See here for more recommendations on planning for ***onshore green hydrogen*** and ***accelerating co-location***

First 100 weeks

- Classify all wind technologies as a critical national priority alongside other key technologies, such as transmission infrastructure.
- Develop a proportionate and well-resourced planning and consenting regime.

Efficient regulatory frameworks that accelerate the deployment of net zero infrastructure



Key recommendations

4. Ensure clear environmental policy to support the growth of the offshore wind sector while meeting environmental targets.

First 100 days

- Develop and implement strategic approaches to environmental compensation and conservation that can quickly be adopted, including a suitable suite of compensation measures for offshore wind farms.
- Design a Marine Recovery Fund with sufficient speed and flexibility, and work closely with industry to ensure it can deliver the best outcomes for marine recovery alongside the rapid deploy-ment of offshore wind.

First 100 weeks

- Continue to develop a strategy to enable the industry to deliver Marine Net Gain. Work closely with industry to develop an approach that will ensure that the renewable energy sector can confidently continue to contribute to the improvement of the marine environment in a proportionate way.

5. Create the right environment for coordination between aviation and wind farms

First 100 days

- Facilitate dialogue between the renewable energy industry and sectors and departments that relate to aviation to develop best practices and clear requirements and ensure that planning objections from aviation to the deployment of renewables are dealt with transparently.
- Adopt the recommendations from the independent report of the ***Offshore Wind Champion*** on radar, which question the appropriateness of industry funding offshore wind mitigations for the government.

6. Ensure communities understand and benefit from the energy transition.

First 100 days

- Ensure a clear and flexible approach to community benefits which enables the rapid rollout of essential grid infrastructure.
- Engage and communicate with communities about the need for the energy transition.

Scaled-up supply chains and skills capabilities that match our ambitious targets

With the increase in global decarbonisation ambitions, the **demand for the clean energy supply chain and workforce has also increased**, already **creating bottlenecks** across the industry. In part as a response to this, the USA and EU have announced a range of new fiscal measures to incentivise private investment in 'green technology' manufacturing facilities and have fundamentally shifted the investment landscape.

For the UK, the supply chain demand presents an economic opportunity—**around £92 billion in GVA by 2040 for offshore wind alone**[10]—and in the face of international competition, the UK must act now to capitalise on its areas of specialism competitive advantage. The **Industrial Growth Plan** (shown below) provides a clear framework to guide investment, both public and private, into areas in which the UK can, based on clear evidence, expect to best secure the best competitiveness, energy security, economic growth and significant export opportunities. This will build of initiatives to date, such as the £100 million industry funded Offshore Wind Growth Partnership, established to support the development of the offshore wind supply chain.

[10] *UK Supply Chain Capability Analysis: Summary Report (OWIC & OWGP, 2023)*

The Industrial Growth Plan:

£8,000bn
Total addressable market to 2050 for development services through to decommissioning

3x
120 nations committed to tripling the renewable energy penetration by 2030

2,000GW
Of global operational offshore wind capacity of offshore wind by 2050

5%
Compound annual growth rate for offshore wind expenditure

21%
UK's share of serviceable offshore wind pipeline to 2035

The opportunity

The need

11%
Increased need for cables in Europe alone to 2030

300
Wind turbine generators required to annually (on average) to meet UK demand to 2030

4x
Increase in UK workface across 2023–2035

The future

100GW
Installed capacity of global deep water and floating projects by 2035

45%
Reduction in global warmiing potential through alternatice materials

11%
Opportunity for LCOE reduction through O&M improvements

Scaled-up supply chains and skills capabilities that match our ambitious targets

Ports and similar facilities such as fabrication yards are critical to the supply chain and deployment of offshore wind projects, as identified by the Offsore Wind Champion his report.[11] 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 2030 targets and beyond. Grasping the industrial opportunities in floating wind alone, which could boost UK GVA by £18bn by 2040, is estimated to **require £4bn of investment in port infrastructure.**[12] This investment **needs to be made in the next 12-18 months** or it will be very difficult for new port and manufacturing facilities to be constructed in time to deliver 2030 targets. While existing policy actions go some way to reducing the risk associated with barriers to investment, the next government will need to develop frameworks **to go further to enable early investment in these facilities**, to ensure they do not become a bottleneck once project construction and deployment is underway.

Skills shortages are already apparent and becoming a concern for investors, with the potential to cause delays to projects and targets unless the next government is proactive and ambitious, ensuring the full jobs potential is seized. With the right support, the offshore wind industry could employ over **100,000 people across the UK by 2030, including jobs in regional and coastal communities.**[13] With 80% of the workforce required for 2030 already in the labour market, the next government must incentivise employers and apprenticeships in the skills where there is the highest demand, whilst simultaneously encouraging high school and tertiary education students to pursue careers in this critical industry.[14]

[11] Accelerating deployment of offshore wind farms: UK Offshore Wind Champion recommendations (Tim Pick & UK Government, 2023)

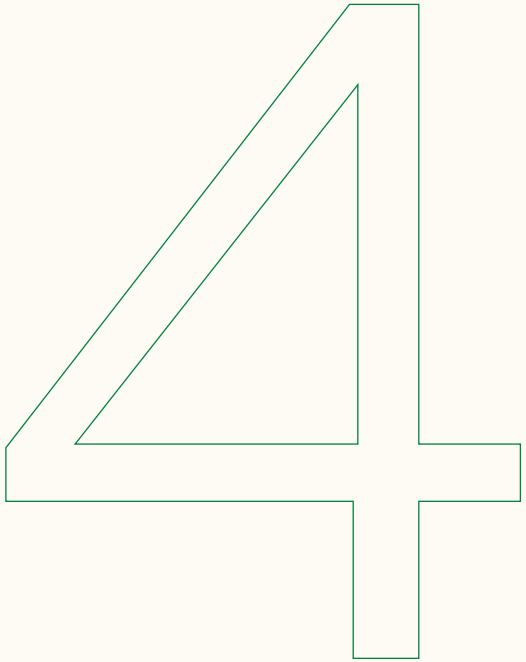
[12] Floating Offshore Wind Taskforce: Industry Roadmap 2040 (Royal Haskoning DHV, 2023)

[13] Offshore Wind Skills Intelligence Report (OWIC, 2023)

[14] Response to Chancellor's Autumn Statement (CIPD, 2022)

Photo: Associated British Ports

Scaled-up supply chains and skills capabilities that match our ambitious targets



Key recommendations

1. Support a competitive and successful supply chain

First 100 days

- Support the UK's supply chain for offshore wind through a multi-year funding settlement for the Industrial Growth Plan which will support development in areas of UK competitive advantage.
- Support the wider renewable energy supply chain by continuing funding for green tech manufacturing, further funding for innovation and R&D in this space and incentivising Government partners to collaborate with renewable energy industries.

First 100 weeks

- Expand tax and levy reliefs to incentivise investment in renewable energy projects, enabling infrastructure and supply chains, including expanding reforms to Capital Allowances.

2. Prioritise investment in UK port capabilities

First 100 days

- Investigate and consult on revenue support and investment models to help overcome market barriers for investment in ports and similar facilities.
- 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 UK Infrastructure Bank, Scottish National Infrastructure Bank, Development Bank of Wales and Crown Estates, as well as grant funding.
- Modernise The Crown Estate's borrowing and investment powers through legislation to unlock their ability to invest in infrastructure, supply chains and de-risking activities to drive renewable deployment.

3. Develop a clear plan for a thriving, skilled and diverse workforce.

First 100 days

- Incentivise training, retraining, apprenticeships and tertiary education renewable energy jobs through tax reliefs and incentive payments, including by reforming the Apprenticeship Levy so that it is fit for these necessary new jobs. Any incentives should apply to both the educators and employees as well as the students and trainees.
- Through the four nations taskforce (and in partnership with industry), dedicate a workstream to coordinating skills development and investment to ensure alignment across green jobs / net zero sector skills strategies and action plans for effective delivery and funding across the UK.

First 100 weeks

- Work with the wider sector to develop its Just Transition Fund and strategy that ensures good quality employment and opportunities for acquiring skills and training and supports affected areas, working with communities.
- Prioritise critical occupations, ensuring the industry tackles the skills and recruitment to the roles the sector needs first and most across regions and clusters. Engage with and provide capital funding for those training providers who will help us to do so, focusing on priority sectors, critical occupations and industry bottlenecks, the first of which will be planning and consenting roles.

By the end of Parliament

- Collaborate with devolved administrations on a communication campaign to promote green jobs, career pathways and routes into the sector.

A secure energy system through forward planning and investment

The deployment of a **diverse range of energy storage technologies and additional interconnectors is essential to ensuring energy security in the UK's future energy mix**, which will be predominately made up of variable renewable energy generation.

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 can help us 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 of long duration energy storage by 2050 could lead to system costs savings of up to £24bn.[15]

In addition, **green hydrogen can act as an energy source to decarbonise sectors that are difficult to electrify**, such as steel, ammonia and cement. The development of our green hydrogen industry presents an enormous opportunity for the UK's economy too—it is estimated that the UK hydrogen sector could be worth £900mn and support 12,000 jobs by 2030, up to 100,000 jobs by 2050.[16]

However, **slow progress in developing and accelerating business models is holding these sectors back and risking the delivery of power decarbonisation.** Indeed, the UK's most recent long duration energy storage project was built in 1984.

Interconnectors with mainland Europe and Ireland will continue to be important for energy security, as well as an opportunity for UK generators to access other markets and more should be developed. Furthermore, a new government should develop a framework for Offshore Hybrid Asset interconnectors, which can connect a wind farm to multiple countries, to realise the full potential of the North Seas as an energy basin.

Finally, with onshore wind in its fourth decade of commercial production in the UK and offshore wind in its third, it is also necessary to consider what happens when wind farms reach their end of life. **By 2040, we are in danger of losing almost 9GW of onshore wind from our total generating capacity of 15GW as it reaches the end of its life.**[17] This will make targets for our climate and security of supply ambitions harder to achieve. The next government needs to create a framework that enables the replacement and repowering of renewable energy assets in the next five years.

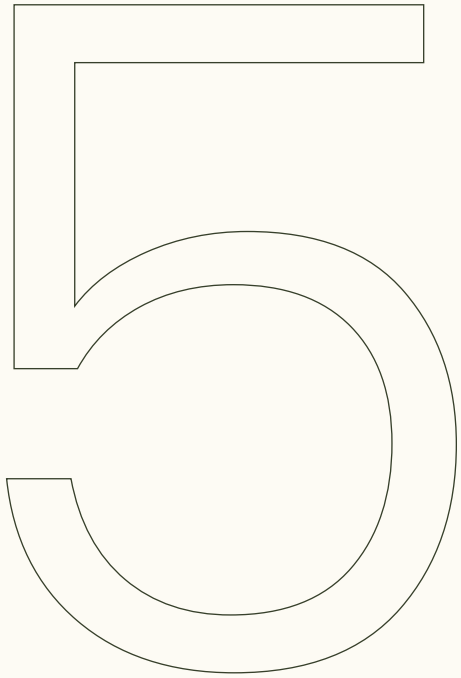
[15] Scenario Deployment Analysis for Long-Duration Electricity Storage (UK Government, 2023)

[16] Offshore Wind and Hydrogen, Solving the Integration Challenge (ORE Catapult, 2020)

[17] Renewable Energy Pulse Data - onshore pipeline data (RenewableUK)

Photo: EDF Renewables

A secure energy system through forward planning and investment



Key recommendations

1. Rapidly deploy long duration energy storage and green hydrogen production technologies

First 100 days

- Deliver a cap and floor mechanism to enable investment in long duration energy storage, supported by targets for development, and commit to opening its first application window in early 2025.
- Continue to support green hydrogen deployment through annual Hydrogen Allocation Rounds, providing visibility on when key decisions will be made and committing to these timelines, and carving out elements of the support mechanism to make it more bespoke to green hydrogen.
- Accelerate the development of business models for large-scale hydrogen storage and pipelines to ensure this infrastructure, which takes a long time to build, is ready when it is needed.
- Provide a progress report on the Government's Smart Systems and Flexibility Plan.

First 100 weeks

- Clearly set out how the CfD will be modernised to allow for more recent requirements (e.g. removing barriers to co-location of renewable energy projects with flexible technologies such as storage or hydrogen, allowing for repowering of existing wind farms and moving dispatch incentives to real-time) whilst retaining revenue certainty.
- Identify opportunities to grow the green hydrogen industry in the UK and globally, informed by an industry working group. Building on this research, establish funding mechanisms/ growth arm that make the UK a more competitive market for investment into the UK's hydrogen economy.
- Develop demand-side policy and strategy for hydrogen, including its role in long duration energy storage and the siting of pipelines, to ensure a liquid market is available to producers.

2. Establish end-of-life strategies for older clean energy projects

First 100 days

- Establish a cross-governmental working group tasked to engage with the wind energy industry to understand offshore windfarm end-of-life decisions.

First 100 weeks

- Develop a clear policy framework and mechanism to support the life-extension, refurbishment and/or repowering of all forms of renewable energy projects.
- Publish an updated UK Government guidance on decommissioning that addresses consent and licensing challenges of decommissioning and that reflects the need to better understand the impact of fully removing offshore wind infrastructure on the marine environment.

By the end of Parliament

- Develop a UK-wide waste management and resource recovery strategy for renewable energy projects.

3. Support offshore hybrid assets

First 100 weeks

- Support the implementation of a full regulatory regime for Offshore Hybrid Assets.
- Collaborate with European countries to increase cross-border transmission capacities in the North Sea and English Channel.

RenewableUK

We want to see a world where renewable energy is the norm, because it's better for our planet and all the people who live here.

We are the established, influential voice of the UK renewables industry. We exist to help our members transform the world of energy. Our proven strategic thinking and solutions-focused approach are trusted to unleash progress and deliver results. We do all this by working hand-in hand with our members. That's why we go all-out to bring people together, fostering networks and finding synergies. We're passionate about renewable energy because we know it's better for people and planet – and we are committed to supporting the innovators, engineers, leaders and thinkers who are driving this important transformation. We consistently help our members to achieve their goals by lobbying policy makers, advocating with impact and reaching out to the public – encouraging everyone to embrace and accelerate change.

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