CBI

Unlocking UK's net zero investment

What is needed to ensure a favourable net zero investment environment?

In partnership with

CLIFFORD
CHANCE

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Foreword CBI

Investment in net zero will be the focus of business action this decade. Growing demand for net zero products and services could generate more than $12 trillion of annual sales by 2030 across 11 value pools.[1] The global race to attract this capital and spur green growth has already begun with countries across the world coming up with strong financial and regulatory incentives to attract investors and projects developers.

There are good reasons to believe that the UK should be at the forefront of global investors' minds for opportunities in the green transition. Its strengths lie in international recognition as a leader on climate ambition, a good track record of cutting emissions, a market-led tradition that embraces the value of partnership with the private sector, the right weather and geology for several key green technologies and thousands of committed businesses eager to hit their newly established net zero targets.

However, without a deliberate and ambitious strategy from government to capitalise on these strengths our opportunity to realise the UK's full green growth potential will be squandered. This should not look to copy the approaches taken by other countries but learn from them, culminating in a distinctive and confident pitch to investors and project developers to answer the question, "Why the UK?".

The CBI, in partnership with Clifford Chance, worked with investors and businesses to identify "pull factors" for net zero investments and propose immediate actions that need to be prioritised by the government to strengthen the UK's offer. UK businesses believe that the government's ambition should be to become one of the destinations of choice for green capital directed to industries, technologies and services of the future. And the time to take action is now.

Matthew Fell

Chief Policy Director

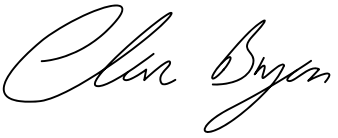
Foreword Clifford Chance

As one of the first countries to enact net zero emissions legislation, the UK has led in its ambitions to deliver the net zero transition. Given the scale of the investment required and the ambitious timelines, it is clear that delivering on these net zero targets will require the deployment of substantial private capital. Our conversations with CBI members reveal that the private sector is ready and willing to meet this challenge and that net zero targets are becoming central to investment strategies and portfolios.

However, to ensure sufficient speed and quantum of capital flows into the technology and infrastructure critical for delivering the net zero transition, CBI members were vocal on the need for clear and consistent policy to support long-term investment decisions. They also highlighted the risk of capital flight with the US Inflation Reduction Act and the EU response increasing competition for capital, skills and resources in key net zero industries.

We also heard of the need to ensure greater coordination in nascent industries like hydrogen, cabon capture utilisation and storage (CCUS) and sustainable aviation fuel (SAF). Developers and midstream operators are unable to accurately forecast demand and make investments for building capacity, while offtakers are unable to switch from traditional sources of power and fuel until production is scaled-up. In the absence of clear market signals, start-to-finish supply chain planning will be critical to unlocking private capital flows and the government can facilitate this through establishing channels of communication between industry players and the various government departments and agencies involved in planning consents.

While the challenges are significant, we were encouraged by the eagerness of CBI members to work with each other and the government to find solutions and seize the opportunities of the net zero transition. We believe that with decisive action, the UK has the potential to become a world leader in net zero industries.



Clare Burgess

Partner, Clifford Chance

Realising the UK's green growth opportunity

The UK has established itself as a world leader on climate action. It was the first major economy to legislate for net zero by 2050 and has successfully decoupled emissions from economic growth.[2] It has binding and independently scrutinised targets and through its Net Zero Strategy and accompanying sector plans, it has begun to outline a path to meeting them.

British businesses have also embraced this mission, urged on by their customers, staff and investors. More UK-headquartered firms are aligned with the UN's Race to Zero campaign than any other nation, including more than two thirds of the FTSE100. Companies taking action recognise their moral responsibility to become more sustainable but are also motivated by the economic opportunities associated with the transition.

- At an economy-wide level the Climate Change Committee has estimated that efforts to cut UK carbon emissions could save the economy 0.5% of GDP by 2050.[3]
- For individual businesses there are increasing opportunities to save money by switching to cheaper, cleaner technologies. For example, a firm upgrading a fleet of light vans will find the total cost of ownership of an EV version to be cheaper than its petrol or diesel equivalent.[4]
- For developers of green technologies there is a multi-billion-pound export opportunity to be tapped as other countries progress their own journeys towards decarbonisation.
- Two-thirds (67%) of businesses will start, continue or increase their investment in net zero transition over the next three years.[5] Total assets in responsible investment funds have grown 63% over the past two years.[6]

But despite a strong track record and thousands of committed businesses, the UK cannot afford to rest on its laurels. Indeed, the race to attract global investment in the low carbon transition and innovative green sectors has just become much more intense with the introduction of the Inflation Reduction Act regime in the United States and similar measures in the EU. If the UK is not to be left behind, there is a need to step up its game in this race to attract capital investment into the green economy. A key part of this challenge relates to improving investment incentives in the UK at a time of a rising corporate tax burden relative to global competitors. To maintain its pre-eminent position and to successfully grow its green economy, the UK must "unlock" private investment in green infrastructure and technology at a faster pace than has been achieved to date.

Feedback from business leaders deeply involved in the development of projects across a range of green technologies – from renewable generation to carbon capture and storage, to hydrogen production, to sustainable aviation fuels – revealed several areas in which the UK could improve its pitch to investors in order to reach final investment decisions. Our ambition should be to become one of the destinations of choice for green investment in industries, technologies and services of the future.

A step change in attracting private sector investment

The Climate Change Committee estimates that achieving a "balanced pathway" to net zero will require annual investment of around £50 billion from 2030 to 2050. To put this into context, only around £10 billion was channelled into low-carbon projects in 2020.[7] This investment will need to largely be funded by the private sector and individuals, with public funding used in a targeted way to crowd in business investment.

This is particularly true for the UK, which has favoured, and has been well-served by, a market-led approach that enables competition, stimulates innovation and drives cost efficiencies.

The good news is that private investors are more motivated to finance projects in the green economy than ever before. Additionally, the Glasgow Financial Alliance for Net Zero (GFANZ) has brought together a coalition of over 550 financial institutions committed to accelerating the decarbonisation of the economy responsible for assets over $130 trillion. There is capital available for developing green infrastructure and industries over the coming decades but the UK will need distinct policy actions to secure it.

What is needed to ensure a favourable net zero investment environment?

Net zero investment "pull" factors	How to strengthen the UK's offer
A. Confidence in political leadership and its commitment to the net zero pathway	1. Reaffirm commitment to the Net Zero Strategy and its supporting plans at the Budget and the publication of the Green Finance Strategy
B. A route to market with the right investment models combined with policies and regulations to support risk management	2. Improve the UK's suite of tax incentives, for capital investment in response to green economy incentives being introduced internationally by other jurisdictions
C. A competitive and stable tax and spending regime, including a smart capital allowance regime to incentivise investment at scale	3. Establish a Net Zero Investment Plan this year and monitor progress towards it
D. Meaningful dialogue with developers, lenders and investors	4. Develop new investment models such as the Contracts for Difference regime, for developing green technologies
E. A visible pipeline of opportunities	5. Reform the local and nationally significant planning systems and permit processes to support swifter delivery of net zero infrastructure
F. An ability to deliver projects at pace	

The UK must compete for investment in a crowded global field

Under the UK's Presidency, COP26 saw a flurry of new pledges by Presidents and Prime Ministers from around the world and, today, 88% of global emissions are from countries that have set themselves a net zero target.[8] While there are legitimate concerns that these pledges should be followed by meaningful plans and policies, there is little doubt that they have increased both the size of green markets and the speed at which they are likely to grow. McKinsey has estimated that growing demand for net zero products and services could generate more than $12 trillion of annual sales by 2030 across 11 value pools.[9] Recognising this shift, many countries are intensifying efforts to attract business investment to grow their domestic green industries and secure an early-mover advantage to open up export opportunities in the future.

The recent publication of the US Inflation Reduction Action and news of the EU's Green Deal Industrial Plan are catalysts for action. Investors now have a growing list of credible destinations to choose from when deciding where to deploy their capital. Without decisive action, the UK risks being left behind or losing on opportunities available in green markets.

"This is a global race, and the UK is not guaranteed success. Packages of legislation in the US and EU — including the US' 2022 Inflation Reduction Act, CHIPS and Science Act and Bipartisan Infrastructure Law, as well as the EU's 2023 draft Green Deal Industrial Plan and 2022 Critical Raw Materials Act — will turbocharge climate action in those jurisdictions. The UK risks being left behind."

UK Finance

So what factors are investors looking at when making a choice about where to put their money? Based on feedback from CBI members, there are a number of common themes:

A. Confidence in political leadership and commitment to the net zero pathway

Destinations which can show firm, long-standing and cross-party political support for the net zero transition will invite greater investor interest than those that can't. Changes in political sentiment on specific policy issues generate risk for investors who need assurance that the foundations on which they make their decisions are stable. A new set of Ministers taking a new policy approach is a risk to be managed. Hence, investors are looking for evidence that the agenda goes deeper than rhetoric from those at the top of government, with a wide range of institutions, local leaders and regulators aligned around the mission.

The UK is traditionally well-positioned among competitors on this criterion. All major political parties are aligned on the need to deliver the net zero target, British leaders have been prominent internationally to encourage global climate action and it has a highly-regarded and supportive set of institutions that hold politicians to account. Through its Net Zero Strategy and accompanying plans the government has established targets for individual technologies to deliver a credible emissions reduction pathway, such as a 50GW 2030 goal for offshore wind and a 10GW goal for hydrogen. These have sent important signals to the market about political intent.

However, our discussions with members have shown that the more recent political turmoil, a perceived lowering of net zero ambition among the government's stated priorities, and an increased risk of market intervention in the energy sector have given some investors more pause for thought. Businesses are looking for government to take bold steps in establishing policy and regulatory pathways for new technologies that drive investor certainty that their products and services can be commercially viable.

> *"To drive investment in green technology, the UK government must ensure coherence between policy and regulatory frameworks and the ambitions of the Paris Agreement. Without a clear UK net zero investment plan, investors may deploy their capital elsewhere in less volatile regulatory environments."*
>
> **Multinational financial firm selling a range of risk-mitigation products**

B. A route to market with the right investment models to support risk management

The role of investors is to identify attractive investment opportunities with clear financial returns. To help manage the risks associated with investment in various green energy options, governments can deploy a range of investment models – from Regulated Asset Base, to Cap and Floor, and Contracts for Differences (CfD).

The UK benefits from a strong track record and high levels of expertise in designing and implementing these kind of models stretching back decades. This approach has been the cornerstone of its success in securing investment in the net zero transition in recent years. Learning from this experience and adapting the approach for new clean technologies should be the task at hand.

Case study: Offshore Wind Industry Council

Offshore Wind Industry Council was a joint government and industry forum established in 2013 to drive the development of the offshore wind sector in the UK. Its senior members were drawn from the leading UK and global firms in the offshore wind industry, including developers and original equipment manufacturers, including many CBI members.

The Offshore Wind Industry Council helped the government design policy actions which enabled technological deployment alongside substantial risk reduction for investors. Its work informed the design of the UK's Contracts for Difference (CfD) revenue support mechanism, which demonstrated the government's long-term commitment to the sector. The CfD has not only secured high deployment rates of offshore wind, but has enabled significant cost reductions, with costs falling from £119/MWh in 2015 to £39.65/MWh in 2019.

While successful on these terms and on the sheer amount of capacity deployed to date, insufficient attention was initially paid to capturing the full economic potential associated with the programme. The Offshore Wind Sector Deal has therefore aimed to address broader policy challenges limiting investment - such as systems integration, supply chain competitiveness, export opportunities and skills required for the scale up of the sector. Learning lessons from this experience in future market mechanisms is a priority for project developers in new green technologies.

C. A competitive and stable tax and spending regime

Private investors will assess government policies that have a direct bearing on potential revenues from a project. Different projects carry different levels of risk, with those deploying nascent or immature technologies naturally tending to be more risky than tried and tested ones. Governments therefore need to introduce a range of subsidies and incentives to de-risk projects and encourage more investment in highly promising new technologies. International capital is mobile, so investors will compare the generosity of these policies alongside the broader environment as part of the criteria for investment.

> *"In the past, technologies with good investment cases in the UK, such as renewables and EVs, were backed by strong government policy and financial incentives. We need this now for developing technologies such as CCS, hydrogen and SAF. Private finance will come when the financial incentives are right to do so."*
>
> **One of the largest UK banks**

As important as the overall generosity of tax and spend policies, however, is their stability. Green infrastructure projects typically span decades, with many investors looking to achieve predictable returns over their lifecycle. Large and unexpected alterations to tax and fiscal regimes do not only impact the economics of projects in train but can also damage investor confidence for the longer term.

While overall the UK has a competitive business tax regime, it has tended to spend far less public money on net zero projects and programmes than its international counterparts with France and Germany having committed twice and four times as much spend respectively.[10] More recently, tax credits for green investment introduced by the US through the Inflation Reduction Act and the EU's Green Deal Industrial Plan look set to 'change the game' when it comes to fiscal incentives in the years ahead (see the box below).

The UK must reassess its own suite of incentives in response to this heightened competition as well as exploring how UK-based firms might benefit from increased ambition overseas through greater export opportunity. However, investors point to backward steps taken in the last year, such as the mishandling of the introduction of the Electricity Generator Levy without an accompanying investment incentive, and a heightened risk of political intervention in markets, as evidence that this increasingly competitive landscape is not being fully taken into account.

REPowerEU and the EU's Green Deal Industrial Plan

In European markets, REPowerEU passed in May 2022. It has been designed to diversify energy supplies and accelerate the clean energy transition. The €300 billion total package is combined with the roll-out of solar, wind and hydrogen accelerator projects, dedicated funding for industrial decarbonisation, faster renewables permitting and hydrogen deployment. It also sets a series of new EU-wide targets, such as energy efficiency to increase from 9% to 13% by 2030. One of the main strengths of the proposals, identified by CBI members, is the EU's clear commitment to key net zero industries in response to the energy crunch, with more ambitious targets despite geopolitical instability at the EU's border.

In February 2023, the EU has also directly responded to the US' Inflation Reduction Act stimulus and presented a Green Deal Industrial Plan to enhance the competitiveness of Europe's net-zero industry. The plan is based on four pillars - a predictable and simplified regulatory environment, speeding up access to finance, enhancing skills, and open trade for resilient supply chains – all of which will be developed in the coming months.

US Inflation Reduction Act

In August 2022, the US signed into law an unprecedented economic stimulus devoted to energy and climate funding – $370 billion over the following 10 years. Most support is in the form of tax credits for a broad range of green technologies which corporations can claim in full and receive as direct payment even if the credit is higher than their tax liability. It has been designed to catalyse domestic energy production and manufacturing through on shoring conditions and reduce the US' carbon emissions by approximately 40% by 2030.

The Act's clear financial incentives, combined with the US government's powerful commitment to championing net zero industries, has been cited by CBI members as an incredibly powerful tool for attracting domestic and foreign investment. It gives the US a competitive advantage and puts more pressure on other countries and regions to come up with equally attractive proposals.

D. Meaningful dialogue with developers, lenders and investors

For green infrastructure projects, and particularly those involving nascent or immature technologies, it is essential to develop mechanisms for ongoing dialogue between public and private sectors. Through working in partnership, specific risks can be identified and managed more effectively with business-focused expertise on technical issues brought to the fore to remove barriers to investment. Forums for discussion and debate also allow objectives and expectations for each party to be set out clearly.

The UK has several strong examples to draw from in developing these structures in the future, such as the Offshore Wind Industry Council or the Low Carbon Finance Group. Both groups were instrumental in co-designing details of Electricity Market Reform such as the Contracts for Difference mechanism that paved the way for a globally leading deployment of offshore wind capacity in the UK.

Case study: Low Carbon Finance Group

The Low Carbon Finance Group ("LCFG") was a non-political group of senior practitioners in energy finance from across the financial services spectrum, formed to provide policymakers with the factual basis for understanding the conditions required for attracting capital to low carbon energy, with significant investment focus and interest in renewable energy and energy efficiency. The group comprised individuals from global equity investment funds, pension fund advisors, independent power investors, project finance banks and investment banks, who brought to bear years of experience of investing in and advising on approximately £20 billion of global renewable energy investments.

In 2012/2013, they were heavily involved in advising the government in the Electricity Market Reform (EMR) and produced written evidence addressing the extent to which the draft Energy Bill established a framework that would boost investor confidence to attract new sources of capital into the UK power sector, with a focus on renewable energy (RE) investment.[11] LCFG provided input on the details design elements of the market, including Contract for Differences (CfD). For example, they pointed out issues with the original proposed CfD model, which would not have provided the revenue certainty required for capital to flow.

E. A visible pipeline of opportunities

A lack of investible project pipelines is a key constraint to attracting investors to green infrastructure markets. While the number of funds competing in this space has grown and governments have stated ambitions to developing new capacity, in many cases this has not translated into "shovel ready" projects. A programme approach, achieved through coordination across all relevant government departments and public bodies, is favoured by investors, affording them with more opportunities to make a return and enabling them to become more familiar with the commissioning approach being employed. Governments can help by moving projects through design and planning stages quickly.

The UK's approach to renewables deployment through the Contract for Difference is a good model to follow, with investors provided with visibility of the timing and size of future auction rounds in advance and the Crown Estate responsible for bringing forward appropriate sites for development. This approach should now be scaled up to bring forward sufficient investment to meet stretching targets for clean energy over the next decade.

"The Crown Estate has launched the first 4GW tranche of development for offshore wind in the Celtic Sea. For the offshore wind supply chain to invest in Wales and the South West, they will need to demonstrate to their own boards that this is not a one off set of projects, and that a road map to developing the 24GW of offshore wind that is the full potential in the UK Celtic Sea will follow."

Multinational energy company

"To invest at scale, we need a net zero project pipeline for investable opportunities and pooling of projects. Our clients want bigger ambition from the UK government."

One of the largest American banks

F. An ability to deliver projects at pace

The quicker infrastructure is operational, the quicker it can generate revenues, so the business case for projects is improved if investors have confidence that they can be delivered on time and on budget.

"It is great that the government consulted on a SAF mandate but investment won't pick up if the sector won't be provided with more policy detail. The work is progressing too slowly and pace of delivery will be key to ensure a successful development of domestic SAF."

Representative of the airlines industry

"In the nuclear industry, investors have seen issues around planning and permits for past projects and this decreases their confidence in the UK''s ability to deliver new ones. Delays like this are detrimental to the attractiveness of the UK's market in the context of net zero transition."

International nuclear energy firm

Delays in the planning and consenting system, supply chain disruption or availability of skills can set projects back years and undermine viability.

CBI members are also consistently frustrated with the ability of the UK's planning and permits system to support the required pace of infrastructure deployment. Not only are there needless additional barriers imposed on cheap and popular technologies such as onshore wind and solar, the average timescales for planning and consenting for both local and nationally significant projects stretch far beyond those in other countries.

"Planning and permitting processes have the potential to be a huge problem for CCS cluster deployment. No UK regulator has permitted such plans at scale in this sector before and there is a concern of delays and bottle necks given the number of potential permit application in a new sector. Where possible, foresight is needed by the government to streamline rules and regulation to accelerate the transition."

Representative of the CCS industry

The UK must play to its strengths in establishing a compelling offer to investors

Despite a challenging economic environment and intensified competition from overseas, the UK has plenty of geological, innovation, political and skills strengths to secure a large market share in green technologies and sectors of the future. As outlined in the CBI's recent paper, however, this market share is currently at risk.[12]

There is still time for the UK to seize green growth opportunities but political action and an ambitious strategy from government are needed now to ensure success in attracting private investment. This should not look to directly copy the approaches taken by other countries but learn from them, culminating in a distinctive and confident pitch to answer the question, "Why the UK?". The key priorities for government should be:

1. Reaffirm a cross-government commitment to delivering the Net Zero Strategy and its supporting plans in the Budget along with the publication of the Green Finance Strategy

To make investment decisions at scale, investors will require additional clarity on the government's plan to deliver its targets from the Net Zero Strategy and scale up delivery. While the Net Zero Strategy usefully set out the government's high-level approach to decarbonising the economy, CBI's discussions with members echo conclusions from the CCC[13] and the Skidmore Review,[14] and suggest that significant policy gaps remain and more clarity is needed on specific delivery plans.

The establishment of the new Energy Security and Net Zero Department, as well as the upcoming review of the Net Zero Strategy, pose a unique opportunity for the government to reaffirm its commitment to net zero and strengthen incentives,sectoral policy and regulatory levers in the Budget and in the publication of the Green Finance Strategy. Reconfirming the government's commitment to the agenda on the basis of the Net Zero Strategy from 2021, adding in clearer timelines for regulatory decisions, will reinvigorate net zero investment over the coming years.

Central to this ask is for the agenda to be owned and embraced by all government departments and agencies. Too often rapid progress has been stymied and investment curtailed by a failure to align the efforts of different parts of the public sector. This change will require leadership from the centre with Number 10 and the Treasury playing an active role in coordinating other departments and holding them to account.

2. Review the UK's suite of tax, spending and regulatory policies in response to green economy incentives being introduced internationally

Clear financial incentives in other countries, including tax credits on offer in the US through the Inflation Reduction Act, put the UK market at a competitive disadvantage. Decisive economic policy levers mean that investors find better returns on and risk profiles for their investments in other jurisdictions. The research has revealed that, besides offshore wind, the UK's market share has declined in key industries for decarbonisation (EVs batteries, EVs assembly and hydrogen electrolyses), which is equivalent to £4.3bn in total projected lost value by 2030.[15]

In the immediate period ahead, the **CBI has recommended** that the government take a series of steps at the Spring Budget to shore up investor confidence. These include introducing full expensing for capital investment as the government's super-deduction comes to an end, introducing an investment allowance under the Electricity Generator Levy and expanding the Industrial Energy Transformation Fund.

To unlock net zero investment flows in the UK on a prolonged basis, the government should also holistically review financial incentives in key net zero sectors and clearly communicate these to investors in the US, EU and elsewhere. To identify the right incentives on a medium-term basis, the CBI backs Chris Skidmore's recommendation to review how policy incentivises investment in decarbonisation via the tax system and capital allowances by Autumn 2023. This should be part of the UK's broader net zero investment plan.

3. Establish a Net Zero Investment Plan this year and monitor progress towards it

To increase investor confidence, the UK government should use its response to the Skidmore Review and the publication of the Green Finance Strategy to identify green investment gaps and commit to delivering policy detail across sectors with the intention of crowding in private finance. The CBI supports Chris Skidmore's recommendation for the government to propose an overarching detailed net zero financing plan as soon as possible.

A plan alone is not going to deliver the investment that is needed. It needs to be supported by broader mobilisation across government departments to deliver – and communicate - policy detail needed to attract investments. Our interviews with members revealed investor frustration caused by the lack of clarity on funding plans and financing models as well as the timelines of policy implementation. Initiatives such as CCUS Investor Roadmap[16] can help clarify the government's plans for building successful industries and clusters. However, they are of limited use to investors if timelines are delayed and policy gaps arise. To be effective, the plan should be updated annually and be complemented by an overview of opportunities in the pipeline.

Case study 1: Lagging implementation and detail of hydrogen support models slow down investment

CCUS support models have seen some progress over the last year. Track 1 cluster projects seeking to benefit from the dispatchable power CCUS, carbon transport and storage and/or industrial carbon capture models are progressing through the due diligence stage. A full form Dispatchable Power Agreement (DPA) was published by BEIS in November 2022 (with a note that the first contract awards are expected to take place in early 2024). However, there is a need to up the pace to meet the government's own targets for a clean power system by 2035. In particular, Track 2 projects need to be brought forward quickly and a means of connecting further projects to Track 1 clusters must be established.

The Low Carbon Hydrogen Agreement business model remains largely at the heads of terms stage, and the hydrogen transportation and storage business models remain subject to an initial consultation. The pace of finalisation and implementation of the government support models has restricted industry participants who are eager to deploy capital but cannot do so without certainty around the level of government support and the expected demand for capacity. A number of UK projects had targeted final investment decisions in 2022 and early 2023, but timetables have been pushed back as a result of delays in the progress of hydrogen and CCUS subsidy models. Several industry stakeholders have noted that the absence of final legislation on these matters has become a critical concern or blocker.

In its response to the Spring Budget the CBI provided a recommendation to drive private sector investment in Carbon, Capture, Usage and Storage projects by urgently fulfilling the commitment to launch the Track 2 cluster selection process to deploy at least two more carbon clusters by 2030.

To enable the delivery of a net zero investment plan, a whole government approach will be needed. Our members underlined that it's important to think about individual policies (be it tax incentives, specific business models, grants or regulatory) from a holistic perspective. It's a system-of-systems, in which progress in one area can drive success in another. For example, Small Modular Reactors (SMRs) can be used not just to power the grid but also to power the production of hydrogen and synthetic fuels. The government needs to carefully identify these interdependencies – across technologies, investments, and supply chains as well as government departments – to come up with a comprehensive set of policy levers and outline them in, for example, a Net Zero Investment Plan. That will make the investment proposition more attractive and clear, and will also accelerate the move to net zero.

4. Develop and deploy investment models, such as a Contracts for Difference regime, for new green technologies

Our interviews with investors and investee companies have revealed that the private finance sector will find it difficult to assume 100% of the high investment risk associated with capital-intensive or nascent projects in technologies such as nuclear, hydrogen and CCUs and SAF. Attracting and insuring private capital investments become substantially easier if there is evidence of such projects working. Hence, to scale up private finance flows to core green technologies, the government needs to commit to a roadmap for the development of a range of revenue support models like Contracts for Difference (CfDs) which can help ensure stable returns and decrease the risk profile of an investment. For technologies such as nuclear that are well-established but capital intensive, the Regulated Asset Base model provides a better support scheme to reduce risk and the cost of financing. Other "cap and floor" support schemes should also be considered where appropriate, so the UK has maximum flexibility to mobilise new investment.

Case study 2: Lack of a CfD model discourages domestic SAF production

In July 2022, following a consultation with industry stakeholders, the UK government published its Jet Zero strategy for the aviation industry. One of the strongest elements of the proposal was the plan to begin construction of five SAF plants by 2025, and the introduction of the SAF mandate, requiring 10% SAF use by 2030. A clear ambition and policy certainty has encouraged investors' interest in the UK's SAF industry.

While the SAF mandate secures a market for SAF in the UK, market participants have cast doubts whether it will encourage domestic production at scale. Other countries, particularly the USA, have provided support for SAF production, being likely that SAF production will happen in those countries and fuel would need to be imported into the UK. This would reduce resilience and lead to the UK losing out on the economic benefits of SAF. To encourage producers and their existing and potential investors to participate in the ambitious 2025 SAF construction target, and the development of the net zero aviation industry beyond 2025, the government should address the dual challenges of price stability and return on investment, as recognised in the Skidmore Review. To mitigate the development risk, the CBI recommended in its **Spring Budget Submission** the development of a "Contracts for Difference" (CfD) model.

5. Reform the local and nationally significant planning systems and permit processes to support swifter delivery of net zero infrastructure

Despite significant appetite for investment in key technologies of the net zero transition, delays and blockers in the construction pipeline are shaking investor confidence. This prevents the industry from progressing at pace with investments and project developments urgently needed for the net zero transition. Long lag times to get projects operational due to slow and inconsistent approaches to planning and consenting across technologies and regions add significant delays to the construction timetable. These factors present additional costs to developers and uncertainty to investors, delaying the period before projects can make returns on investment.

The uncertainty and delays are particularly present in the lengthy consenting process for offshore wind and nuclear. The lack of sufficient grid capacity and the extreme length of time taken to deliver new grid connections in England are also fundamental barriers to net zero infrastructure, and need to be addressed to 2035 energy mix targets.

To its credit, government has recognised the need to reform processes to increase the pace of delivery, notably in the publication of the British Energy Security Strategy in 2022 which committed to cutting planning and consenting times for renewables projects from four years to one. It is also consulting on options for a new onshore wind planning regime.

Case study 3: Lack of coordination between regulators and delays to permits hinder the development of nuclear

In March 2022, the government enacted the Nuclear Energy (Financing) Act which introduced a RAB funding model for new build nuclear power projects in the UK. The RAB model allows for greater risk sharing and offers investors a more reliable rate of return in the early stages of a nuclear power project which could also give investors access to cheaper financing.

At the same time, investors flag that the lack of centralised coordination and planning in government, especially around permits and legal proceedings as one of the key blockers to investing in the sector in the UK. Currently, each nuclear project requires hundreds of environmental, construction and operational permits as well as a Development Consent Order and a Nuclear Site Licence. These must be procured from different regulators. Each of these must be applied for separately, even though their content often overlaps, which can create confusion and risk double regulation. Although in some cases it may be possible to condense some applications, significant time delays with obtaining permits (and modifications) can also arise due to regulator delays or judicial review challenges. Long expensive and changeable permitting and licensing regimes applicable to nuclear projects create political and regulatory risks, making it difficult for potential investors to make informed decisions.

There is no explicit and consistent duty placed on regulators to support the delivery of the net zero transition. Thus, the decisions taken by regulators on permits often do not reflect the urgent need to deliver more clean energy. This increases investors' uncertainty about project timelines and realised returns, driving up their perceptions of risk. A "net zero duty" could help increase certainty that regulators would prioritise the actions needed to achieve net zero when faced with the inevitable problems of competing priorities and limited resource.

The recognition of the necessity to streamline the permitting process in the Skidmore review is encouraging and should be considered alongside reforms to the planning system to ensure the regulatory environment is able to deliver roll-out of net zero infrastructure at the necessary pace. The UK should consider adopting similar solutions to France, where legislation has been drafted to streamline bureaucracy for administrative permits needed to build new nuclear power plants in response to the global energy crunch.[17]

Conclusion

The UK's green growth opportunities could continue up to £60bn in gross value to the economy by 2050.[18] These opportunities will not be realised without catalysing net zero investments at scale. With the challenging economic environment and global competition ramping up, there is a risk that the UK will lose out on potential market share if doesn't take decisive policy actions to present a more convincing offer to investors and developers.

Succeeding in a Green Industrial Revolution will require an unprecedent level of mobilisation from the whole of government. Departments will need to come up with effective interlinked policy solutions with "net zero" as a north star guiding the UK's economic and industrial policy. We need stronger cross-government vision for attracting net zero investment and close public-private cooperation to be on the winning side of the global race to net zero.

This paper signals the beginning of a conversation that the business community wants to have with politicians to ensure our net zero transition delivers on its potential as a programme for economic transformation. To develop the necessary policy detail, highlighted in this paper, the government needs to closely explore detailed solutions for policy areas, such as the system-of-systems approach to technologies, faster delivery of infrastructure, specific financial models and incentives and – more broadly – secure supply chains and the right skills in the workforce.

The CBI will continue engaging with its UK-wide membership, representing almost a quarter of the private sector, to develop the policy strategy that will attract investment and deliver the highest growth route through decarbonisation.

Annex: Relevant recommendations from the CBI's budget submission

In February 2023, the CBI published a **Budget Submission** to inform the government's thinking. We highlighted that without action on green competitiveness, energy security and energy efficiency, the UK will be stuck with an economy geared to the global markets of the 1990s, not the 2030s. And we'll continue to lose our first-mover advantage as global competitors double down on stimulus for their green economies.

Below are some key policy asks from our Budget Submission, which could support the UK's offer to businesses. This is a non-exhaustive list and further action will be needed to catalyse investment.

Ensure the UK has the most competitive Investment Allowances regime in the G7

1. Introduce targeted 'green' investment-focused capital allowance mechanisms for both incorporated and unincorporated businesses so firms help drive the UK's transition to net zero.

Supercharge the UK's international competitiveness in green markets

2. Establish a Contracts for Difference (CfD) price support mechanism for the development of a Sustainable Aviation Fuels market, placing the UK at the forefront of aviation decarbonisation.
3. Move forward with proposals to increase the subsidy intensity of the Exemption Scheme for Energy Intensive Industries (EIIs) from 85% to 100%.
4. Reduce Network Charges for EIIs in line with international competitors.

Deliver a secure, low cost and low carbon energy system

5. Urgently finalise and legislate the hydrogen business model to scale up the UK hydrogen economy and enable first of a kind projects to come on stream by 2025.
6. At the Spring Budget, establish a route to finance for Small Modular Reactors (SMR) in partnership with industry and Great British Nuclear.
7. Drive private sector investment in Carbon, Capture, Usage and Storage projects by urgently fulfilling the commitment to launch the Track 2 cluster selection process to deploy at least two more carbon clusters by 2030.
8. Implement an investment allowance for the Electricity Generator Levy (EGL).

Double down on the UK's energy efficiency transformation to sustainably reduce energy costs for households and industry.

9. Extend the Industrial Energy Transformation Fund (IETF) from 2025 to 2030 to support industrial sectors to decarbonise and become global leaders in green technology.
10. Launch 'Help to Green' vouchers for small and micro businesses to help them invest in energy efficiency measures.
11. Announce the publication of ECO+ guidance and scheme design, to reduce the risk of delays to critical energy efficiency improvements to help households take back control of their energy bills.

Catalyse net zero investments in the UK through a competitive green finance regime.

12. Deliver an ambitious, updated Green Finance Strategy in the first half of 2023.

Decarbonise road transport to accelerate the UK's journey to net zero

13. At Spring Budget, publish a roadmap for the deployment of the £950m Rapid Electric Charging Fund to be delivered by the end of 2023, ensuring swifter delivery of vital Electric Vehicle infrastructure.
14. Announce VAT reform on public charging to incentivise the uptake of zero emission vehicles by reducing the rate of VAT levied on public EV charging to 5%.

Streamline the UK's slow and inconsistent planning system to unlock trapped infrastructure and supercharge delivery and growth

15. Announce plans to develop a 'National Plan' for planning, which will be consulted on and developed with industry.
16. To accelerate the delivery of projects, speed up the planning decision-making process from 13 to 10 weeks and address local planning authority resourcing issues.
17. Give local planning authorities greater flexibility in fee setting and allow them to outsource planning functions to drive competition and performance.

Unlock investment in the Chancellor's five growth industries

18. Deliver Solvency UK by the end of Summer 2023, to unlock higher levels of patient capital and long-term finance into the economy.

Supercharge R&D investment across the UK

19. Expand the R&D tax credit to include capital expenditure as an allowable expense.
20. Establish a 'green' uplift in the current – and any future combined – R&D tax credit scheme to remain internationally competitive and help unlock private sector investment to reach net zero and capture green markets.

Policy solutions to create an education system that works at the beginning of a career and throughout

21. Announce at Spring Budget a two-year pilot of turning the Apprenticeship Levy into a "Skills Challenge Fund" allowing firms to spend the fund on a variety of training and skills, putting the challenge to invest in skills back to business.

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About the CBI

Founded by Royal Charter in 1965, the CBI is a non-profit business organisation that speaks on behalf of 190,000 UK businesses of all sizes and from across all sectors, employing nearly 7 million people between them. That's about one third of the private workforce. This number is made up of both direct members and our trade association members. We do this because we are a confederation and both classes of membership are equally important to us.

The CBI's mission is to promote the conditions in which businesses of all sizes and sectors in the UK can compete and prosper for the benefit of all. With offices around the UK (including in Scotland, Wales and Northern Ireland) and representation in Brussels, Washington, Beijing and Delhi, the CBI communicates the British business voice around the world.

Our mandate comes from our members who have a direct say in what we do and how we do it

The CBI receives its formal mandate from 9 Regional Councils, 3 National Councils from Scotland, Wales and Northern Ireland plus 16 sector based Standing Committees. These bodies are made up of members in that region, nation or sector who serve a term of office. The chair of each Standing Committee and Regional and National Council sit on the CBI's Chairs' Committee which is ultimately responsible for setting and steering CBI policy positions.

Each quarter this formal engagement process across the CBI Council reaches over 1,000 senior business leaders across 700 of our members who have a direct say in what the CBI do and how they do it, from refreshing their workplan to discussing the key business issues of the day and re-calibrating its influence. Over 80% of the businesses represented on the CBI Council are outside of the FTSE350 as the CBI represents a wide range of sizes and sectors from the UK business community. This formal governance process is supported by a wide range of working groups, roundtables, member meeting and events that makes the CBI unparalleled at listening to and representing British business.

CBI Council in numbers

1000+

Committee and Council representatives

28+

Regional and National Council and sector based Standing Committees

50%

Representatives of the CBI Council at C-Suite level

80%

Of the CBI Council from non-FTSE 350 businesses

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