

C|B|I|

TAX AND GREEN INVESTMENT



**The CBI serves as the catalyst
between industry and government to
drive positive change, speaking for
businesses of all sizes and sectors
across the whole economy, in every UK
region and nation, ensuring sustainable
growth for the benefit
of society.**

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Foreword

Next year will be a decade since the 2015 Paris Agreement on climate change. In that time, evidence has only mounted for the existential urgency of the challenge. 2023 broke every climate indicator: it was by far the warmest year on record; observed sea levels reached record highs; and greenhouse gas concentrations continued to rise.¹

That period has also seen some of the most ambitious economic packages in modern history – from the EU’s Net Zero Industry Act to the USA’s Inflation Reduction Act. Their aim: to speed towards net zero and seize the economic opportunities from green growth.

The UK, however, has still not set out a plan and we are falling behind in the race. But we are far from out. In our report last year, the CBI found green growth prizes that together could not only speed our progress to net zero, but also add £57bn to the UK economy every single year.²

We can’t seize those prizes by outspending the competition: the USA package alone is estimated at over \$1 trillion.³ But we can outsmart them – by using government policy to crowd in private investment. That’s what this report is about.

In 2020, the UK was investing the biggest share of GDP in energy transition, but since then we have dropped down the table. Today, businesses still want to invest, but they need an investment environment that matches our net zero ambitions.

There are different levers we can pull to get there, but one of the best for spreading upfront cost and targeting the tech we need is tax incentives. In this report we set out how we can use smart moves like a new Green Innovation Credit, a corporation tax rate and an enhanced green super-deduction – to once again get the UK to the front of the queue for net zero investment. For the benefit of our economy, our people, and our planet.



Rain Newton-Smith
CEO, CBI



Executive Summary

The UK's green growth opportunity is vast. Growing the green economy not only holds the key to meeting our obligation to decarbonise, but the CBI estimates that by 2030, a non-exhaustive list of green growth 'prizes' could increase in value to contribute £37-57 bn of annual UK GDP alone.⁴

Global competition to decarbonise is driving ambitious reform packages – such as the US Inflation Reduction Act (**IRA**) – which support green investment (business investment in research & development, commercialisation, and adoption of green technology, and the skills needed to decarbonise).⁵ Although the private sector stands ready to invest, the UK is yet to lay out a domestic response and is falling behind global counterparts such as Germany and France in terms of energy transition investment as a share of GDP. We must act quickly to remain internationally competitive or else risk losing out on what *Mission Zero – the UK's Independent Review of Net Zero* refers to as "*the economic opportunity of the 21st century*".⁶

Government support can provide a fillip for the investment required by addressing market failures and using the tax system is an effective way to do so. Approached in the right way, tax incentives can be used to outsmart rather than outspend the competition: they can compliment direct government investment; they can be used by government to target incentives to particular green technologies (as is being done by competitor countries); and the benefits are felt quicker in comparison to public investment.

To make better use of its tax system to support green investment, the UK should follow the example set by competitor countries and ensure that there is a cohesive approach between the development and implementation of policy to decarbonise and the use of tax incentives.

This paper explores how tax policy can directly support increased green investment by addressing existing gaps in the UK's tax system, analysing international approaches to tax policy to understand how they compare to the UK's approach, and recommending how to tailor these tax measures to the UK's key green growth prizes.

UK tax gap analysis

It is important to understand what the UK tax system currently does to support green investment. A gap analysis was conducted, divided into the different stages of the innovation cycle – R&D, commercialisation, and adoption of technology – and the supply of skills.

This gap analysis found the UK tax system provides relatively strong, if untargeted, support for R&D. However, there is very little support for commercialisation or adoption of green technology – and some features of the current tax system actually create barriers to adoption, investment in land and buildings, and the skills required to decarbonise.

As a result, we make recommendations for some small changes that could be made to address discrepancies in the existing tax system where there is divergence between our net zero ambition and tax policy. However, given the lack of targeting of tax incentives to green investment and the enormity of the task ahead – in the context of the growing international flow of green incentives and support with which the UK is competing – more ambitious changes are required to increase green investment to a level where the UK can be internationally competitive.

International comparative analysis

To help identify how to drive more ambitious change, this paper analyses the policies used by international counterparts to support decarbonisation and explores their suitability to the UK.

We explore four approaches: capital allowances, investment tax credits, reductions to the corporation tax rate and production tax credits. The first three emerge as the preferred options for UK implementation. Precedent for using these in the UK means that they create less complexity and uncertainty for businesses and government, and are more familiar to UK businesses, making them easier to implement than production tax credits.

A common thread running through international approaches is that they are all clearly targeted at strategically important green technologies; this focus sends a clear investment signal to businesses and the UK should replicate this.

Maximising green growth prizes

To compete internationally, a more ambitious approach that targets strategically important green technologies is required. The UK should start by unleashing the potential of the green growth prizes identified by the CBI's 2023 Going for Green Report.⁷ These are electric vehicles (**EVs**), low-carbon power,⁸ heat and buildings, green services, biofuels, hydrogen, carbon capture, utilisation and storage (**CCUS**).

The final chapter of this report looks at the issues raised in the previous CBI analysis, and applies the international approaches set out in this paper to identify where the UK tax system could be used to incentivise development of, and investment in, new technologies in each of these areas.

Which option is appropriate for different types of investment depends on the type of market failure each option seeks to address, and where in the investment chain targeting is likely to have the most effect. In some cases, more than one option might be appropriate. For example, previous CBI analysis identified that the supply of EVs is still hindered by a lack of domestic cell capacity. This could be boosted by either new Green Innovation Credit to support projects to develop cell capacity in the UK, or an investment super-deduction for green investment to boost demand – or indeed both.



Our recommendations are:

- A new Green Innovation Credit (with a headline rate of 40%) for CCUS technologies, EVs and battery technology, heat pump technology, biofuels and hydrogen production.
- A lower corporation tax rate of 10% as a commercialisation incentive for profits derived from development, manufacture and sale of batteries required for use in EVs, and commercialisation and sale of heat pumps, biofuels, low carbon hydrogen and associated storage and transportation facilities, and CCUS technologies.
- An enhanced green super-deduction at a rate of at least 120% to support investment in EVs and battery manufacture, grid improvements, low carbon power, heat pumps and retrofitting, biofuel refining and refuelling, infrastructure for deployment of hydrogen, and CCUS adoption by heavy industry.

Rather than calling for these recommendations to be implemented all at once, they should be considered as options for future governments to consider – whether alone or together – to create a package of tax measures that provides the best value for money, and impact, in bringing the UK closer to its net zero goals. A selection of these measures should be the starting point and then when fiscal headroom allows, more of these recommendations should be implemented.

To provide certainty, time limits which align to our net zero milestones should be identified up front for each measure. Finally, although the above recommendations offer a starting point for how to target green investment, these technologies should not be treated as an exhaustive list to which tax incentives should apply.

The report also recognises that tax is not always the answer: in the case of green services, for example, finalising the UK Green Taxonomy should be the priority.

Introduction

In the past two years, global competition to decarbonise has driven ambitious reform packages to stimulate green investment. Initiated by the US IRA, and followed by multiple other packages, including the EU Net Zero Industry Act (**NZIA**), these initiatives use tax credits, subsidies, grants, and loans to incentivise green investment (defined as business investment in research & development, commercialisation, and adoption of green technology, and investment in the skills needed to decarbonise). The eye-watering sums associated with these packages have led to renewed discussion on the role of industrial policy in the green transition, the risks of de-industrialisation – caused by businesses which face high costs of decarbonisation of industrial processes in the UK relocating to areas of the world where it is cheaper and easier to decarbonise – and state-led international competition for investment.

While the policy objectives of these packages are diverse, and in some instances extend well beyond decarbonisation, there are three shared motivations: first, as agreed in the 2015 Paris Agreement, a sense of urgency on the need to act to limit global warming to 2°C above pre-industrial levels⁹ while ensuring “*a just transition of the workforce, and the creation of decent work and quality jobs*”;¹⁰ second, a desire to stimulate the economy through green investment and capture international market share of key green industries; and, third, a shift to strategically adjust supply chains on economic security grounds, in response to heightened geopolitical tensions, particularly between the US and China.

Whilst recent announcements on full expensing, green industries funding and targeted tax reliefs should increase investment, the government should review the tax system to ensure the UK has the right tax framework to support the transition to net zero.

This paper therefore develops tax policy recommendations to support green business investment, acknowledging that a comprehensive policy package will extend beyond the scope of this paper to also include tax policy that supports investment by individuals, penalises polluting behaviour and indeed, more than just tax policy. Tax relief for investment can complement policy mechanisms like an effective carbon pricing approach. As the UK's emissions trading scheme is relatively well developed, and further measures including a carbon border adjustment mechanism are expected in the near term, these measures are not considered in this paper but the CBI expects both approaches to be beneficial in achieving the UK's net zero goals if designed well.

The first chapter of this paper outlines the challenges facing the UK and the need for tax incentives to support green investment. The second chapter analyses how the UK's tax system is currently being used to support green investment. Where gaps exist, recommendations to address these are made. Chapter 3 reviews policy measures enacted in other jurisdictions worldwide for their applicability to the UK. The fourth and final chapter sets out which policy measures identified in Chapter 3 can be used to seize important green growth prizes (EVs, low-carbon power, heating and insulation, green services, biofuels, CCUS and hydrogen) as identified in the CBI's 2023 Going for Green Report.¹¹

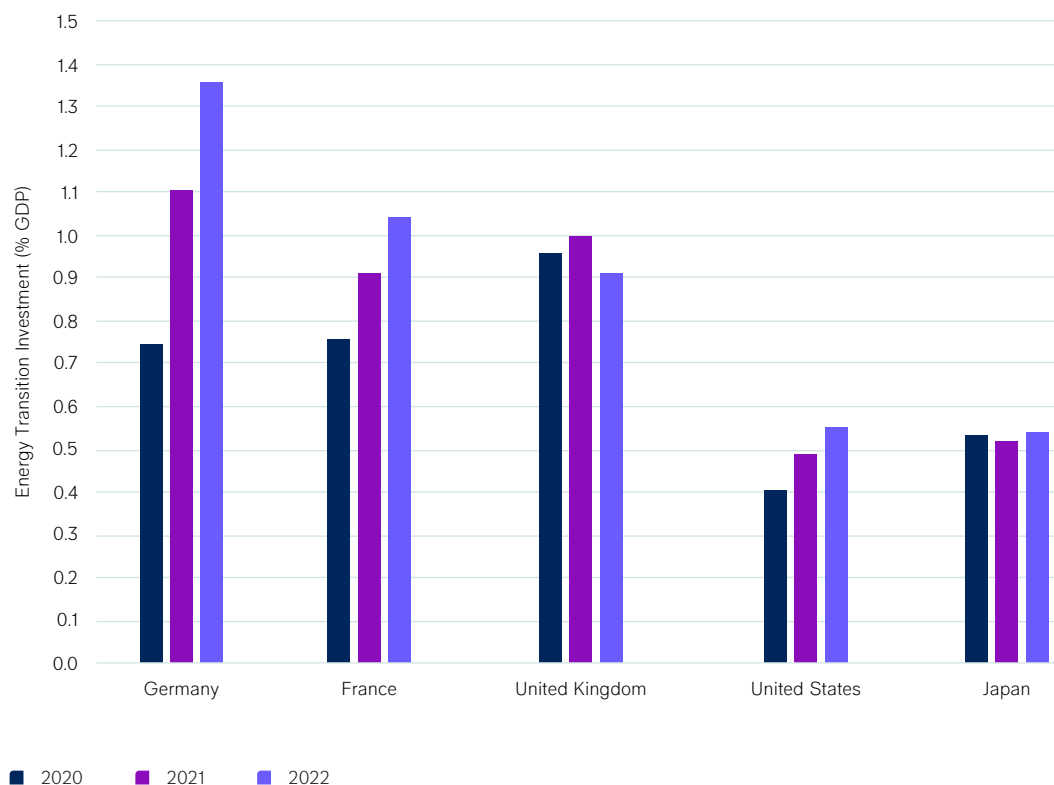
Problem statement

The past 24 months has seen an intensification of global competition for green investment with governments around the world launching large subsidies to support the green transition. Although there is variation internationally in the nature of these programmes, the key policy instruments used are grants, loans, and tax relief, typically with a sector focus. The use of subsidies has become a prominent feature of several of these interventions to stimulate green investment.

Does the UK government need to do more to support green investment?

Before factoring in the impact of government packages on green investment flows, the UK was already falling behind its global counterparts. **Figure 1** shows that, despite having the largest energy transition investment as a share of GDP in 2020, by 2022 the UK had fallen behind Germany and France. It is also clear that energy transition investment as a share of GDP increased sharply in Germany, France, and the US, whereas in the UK it fell between 2021 and 2022. To ensure it remains internationally competitive, therefore, the UK government needs to consider how it can play a greater role in supporting green investment.

Figure 1 Energy Transition Investment by country



Source: BloombergNEF

How should the UK support green investment?

Incentivising private green investment is key to the net zero transition. It is clear from the Climate Change Committee's estimates - "*overall public and private investment in emissions reduction will have to scale from the £10 billion per year in 2020 to around £50 billion per year from 2030*"¹² - that public funding alone will not be sufficient.

However, government support for green investment will be necessary to support the transition. The main reason for intervention is that it is unlikely that the transition will happen at a sufficiently fast pace if left solely to the private sector, given the inherent market failures that exist within the system. The single most obvious market failure is that the externalities of greenhouse gas emissions are not captured in market prices. But there are other challenges including path dependencies across different technologies, with many relying on decisions which are yet to be taken by government.¹³ These provide the economic case for market interventions including the use of R&D grants, public infrastructure investment, tax incentives and information campaigns.

This paper focuses on tax incentives for several reasons. First, they complement government grants and can be more cost-effective as they do not require the government to allocate funds up front and instead represent a proportion of the investment made up of foregone revenue for government rather than the total cost of that investment - and they can be offset over time by increased tax revenue from the new and growing industries that develop as a result of the incentive. Second, tax - like grants or subsidies - is a route for government to target incentives to particular technologies they want to support and/or develop. Third, anecdotally businesses tell us the benefits of tax policy can be felt more quickly than public investment both because it can be implemented with immediate effect where public investment programmes often take a long time to design and implement and because taxpayers themselves have more control over its application (i.e. a business may choose to pivot its investment or approach to take advantage of a tax advantage, without needing to apply to an external body for it as they would with a grant or subsidy programme). Fourth, other competitor countries are using tax incentives as a key lever to support green investment.

How should the tax system support green investment?

The UK should make better use of its tax system to support green investment that accelerates the UK's energy transition. The current UK tax system is not tailored to support the growth of green industry and as a consequence, broad measures such as the R&D tax credit – while an effective tool for stimulating private business investment in innovation – do nothing specific to support green innovation. In some cases, the tax system even works against green investment as in the case of the Electricity Generator Levy which is a windfall tax applied to electricity generators (including those using renewable energy) and does not provide a special relief for reinvestment in the same way oil and gas producers can under the Energy Profits Levy.¹⁴ A cohesive government approach which develops and implements tax policy alongside wider decarbonisation policy is critically important to achieve net zero.

The type and timing of incentives created by tax policy also requires consideration. As an alternative to carbon pricing which reduces the market for fossil fuel-based technology, tax relief can make it cheaper to decarbonise rather than, or alongside, making it more expensive to pollute. Tax relief can be targeted towards first increasing the supply of a cleaner technology followed by demand-side measures to ensure that technology is consumed. Indeed, support packages such as IRA rely heavily on the use of tax relief to stimulate green investment in this way.¹⁵ While there is merit in exploring the full range of tax policy levers available to stimulate green investment, this paper focuses on tax relief. The next chapter analyses the extent to which the UK's tax system currently supports green investment.



"Overall public and private investment in emissions reduction will have to scale from the £10 billion per year in 2020 to around £50 billion per year from 2030."

UK tax gap analysis

To understand the extent to which the UK tax system currently supports green investment, we conducted a gap analysis. This involved assessing qualitatively the interaction between tax policy and green technology, as due to data limitations it would not be possible to assess quantitatively the extent to which specific reliefs impact investment decisions.

Our analysis was divided into the different stages of the innovation cycle – R&D, commercialisation and adoption of technology – and the supply of skills. Findings that follow are presented accordingly. The UK Government's website (GOV.UK) was the main source of information used to understand where tax policy currently incentivises green investment, while CBI member input and the Mission Zero Report¹⁶ provided the necessary context to identify the gaps which UK tax policy should go further to address.

R&D

Tax incentives do exist to encourage R&D – the process by which new technologies or improvements to existing technologies and processes are created by businesses¹⁷ – but aim to incentivise innovation by rewarding investment in R&D in any sector, rather than being targeted to R&D that supports decarbonisation.

R&D tax relief

Until recently, R&D tax credits comprised of separate schemes for SMEs and large companies (the R&D Expenditure Credit or **RDEC**),¹⁸ but a merged scheme came into effect for accounting periods beginning on or after 1 April 2024.¹⁹ Many parts of the merged scheme already achieve the aim of ensuring that the UK remains a global innovation hub, including the introduction of an RDEC-style above the line expenditure credit for all companies, the decision not to restrict claims below a minimum expenditure threshold or in relation to qualifying indirect activities, and the proposal to evaluate the policy after sufficient years of monitoring data.²⁰

This is also a real opportunity to modernise the R&D tax credit system and make it more internationally competitive. This could easily be done by bringing capital spending in scope where this supports science and technological advances.

Capital expenditure related to R&D can qualify for a research and development allowance which is a 100% allowance under the capital allowances regime.²¹ However, this is often of limited value to R&D intensive and/or early-stage companies. Capital allowances are most valuable to profitable companies which can use them to reduce profits and therefore save cash tax. Many innovative companies will not be profit-making, particularly in a period when they invest in expensive capital assets, in which case a capital allowance has no immediate value to them – all it can do is increase their losses. They can carry losses forward to a future period but – even if they become profitable in future, which is not a given with high-risk innovative companies which may fail before commercialisation is achieved – the use of those losses may be restricted under the UK loss restriction rules, with the restriction dependent on the profit achieved. This makes capital allowances much less attractive than an R&D tax credit which pays out a cash amount, allowing businesses to benefit from their investment more quickly and with more certainty.

As called for in our 2024 Spring Budget submission, a more competitive UK R&D scheme should therefore bring capital expenditure within scope as is already the case in, for example, Ireland and France. While this would improve the R&D tax credit for all sectors, it would not target support to green technologies. It is possible to improve the value of the credit specifically for green R&D and this is something the government should consider, as set out in Chapters 3 and 4.

Tax relief for investors using venture capital schemes

In addition, tax reliefs for investors using venture capital schemes exist to encourage them to invest in small, high-risk companies that are not listed on any recognised stock exchange. These companies are an important contributor to the R&D ecosystem. There are three such schemes, each aimed at different sizes of company: the Seed Enterprise Investment Scheme (**SEIS**) is limited to the smallest and youngest businesses, the Enterprise Investment Scheme (**EIS**) and Venture Capital Trust (**VCT**) relief both allow investment in larger but still young and risky businesses, with VCTs allowing indirect investment via a specialist venture capital company. Investors can receive income tax and – in some cases capital gains tax – relief on their investment to encourage them to put money into companies that might otherwise be seen as too high risk for investors and unable to borrow on affordable terms.

The EIS, SEIS and VCT schemes all have limitations in terms of the size of enterprise in which investment can be made to get relief, which limits their value for scale-up businesses. For VCT and EIS, the largest of the schemes, these limits include a cap before investment on gross assets of £15m and 250 full-time employees (with higher limits for knowledge-intensive companies). These are limits that can be hit quite quickly in a capital and/or R&D-intensive business.

The CBI therefore argues that a more effective approach by government to support R&D intensive scale-ups would be to increase the total that can be raised from EIS and SEIS investment for knowledge Intensive Companies from £20 mn to £30 mn for the former and from £nil (because the SEIS scheme has no special conditions for Knowledge Intensive Companies) to £1 mn for the latter. We do not suggest a targeted scheme for green investment because the scale of investment needed to achieve net zero goals goes far beyond retail investment start-up level, and more broad-based incentives like a new Green Innovation Credit to support green R&D would provide a way of supporting businesses of all sizes which are innovating to support the green transition.

Commercialisation

This note distinguishes between R&D and commercialisation using the Department for Science, Innovation & Technology's guidelines on the meaning of R&D for tax purposes.²² Tax incentives for commercialisation are understood as ones that incentivise investment from the point when "*knowledge is codified in a form usable by a competent professional working in the field, or when a prototype or pilot plant with all the functional characteristics of the final process, material, device, product or service is produced*". By applying this definition, only one cross-sectoral tax measure has been identified which supports commercialisation: the UK Patent Box.

Patent Box

The UK Patent Box rate, which allows businesses to claim a lower corporation tax rate (10% compared to a headline corporation tax rate of 25%) on profits derived from patented assets, encourages companies to keep and commercialise intellectual property in the UK.²³ However, this support is limited in terms of scope, with unpatented technology failing to qualify for the relief despite the benefits it can bring to the economy. This can be a particular problem for smaller businesses, which are less likely to have the time or expertise to patent technology. The UK Intellectual Property Office found that "*large companies have benefited most from the scheme, forming 32% of claimant companies by number but 95% by value of relief claimed*".²⁴

The Corporation tax rate section in Chapter 3 considers how a lower corporation tax rate has been used in Canada to support green investment and Chapter 4 explores how the UK should do the same.

The Mission Zero report also highlights a problem with the amount of funding in this area and where it is targeted; although investment is skewed towards well-proven decarbonisation technologies, there is *"a gap in investment between technologies at the very early stages of development, and those which are mature, late-stage technologies"* (known as the *"valley of death"*).²⁵ However, overcoming this problem will require a multifaceted solution and whilst Chapter 4 recommends tax policies that de-risk investment in key green technologies, measures outside of tax policy (and therefore outside the scope of this paper) will be key to addressing this issue. The CBI commented on the Chancellor's Mansion House speech in July 2023, supporting measures to make the UK a more attractive destination to grow companies.²⁶ Unlocking pension funds as a source of finance for scale-ups, ensuring funds have the expertise and flexibility to direct finance to technologies of the future (particularly the deep tech and life sciences sectors) and finding ways to drive cultural change in the UK to make us a more risk-taking nation have also been identified as solutions.²⁷

Adoption

Capital allowances

Capital allowances support the adoption of technology by providing a tax deduction for capital expenditure. Although the rate of the capital allowance (which determines the amount that can be deducted in calculating taxable profits or losses in a particular period) tends to depend on the economic life of the asset acquired, a higher rate can be used as a lever by the Government to incentivise capital investment on specific assets.

The most generous capital allowances in the UK (those that provide a tax deduction for 100% of the expenditure incurred) are either cross-sectoral or limited in the green technologies they target. In the Autumn Statement 2023, the Government announced the permanence of full expensing (although this is not available to unincorporated businesses, or for investment in second-hand or leased assets).²⁸ This followed the Autumn Statement 2022 announcement to set the Annual Investment Allowance (**AIA**) at £1 mn²⁹ and provides incentives for business to spend on capital. With regards to targeted capital allowances for green technologies however, only certain transport technologies such as electric cars, equipment for EV charging points and plant and machinery for hydrogen and biogas refuelling stations qualify for a 100% first-year allowance (**FYA**).³⁰

Other, important green technologies that are vital to the net zero transition attract a much lower capital allowances rate. For example, assets such as solar panels and thermal insulation only qualify for the 50% FYA (as special rate pool items)³¹ and then a 6% special rate writing down allowance in subsequent years.³² Although the AIA – a 100% capital allowance – can act as a backstop in the sense that it applies to assets which only qualify for the 50% FYA (and not full expensing), a limit of £1 mn applies (on a group basis rather than per company). Furthermore, allowances for structures and buildings – including extensions and repairs like replacement of a roof with more environmentally friendly materials – only receive a flat allowance of 3% per year.³³ This is not enough of an incentive to invest in decarbonising our property stock. Finally, certain green investment does not get any tax relief at all. In the case of Gunfleet Sands Limited, ancillary studies costing nearly £50 mn (windfarm design and survey costs) associated with developing UK offshore windfarms did not qualify for any capital allowances and could not be treated as revenue expenditure.³⁴ A more consistent and less fragmented capital allowances approach is needed to incentivise spending on all assets that are needed to decarbonise the UK's economy.

Also important is the generosity of the rate of capital allowances. None of the measures mentioned so far offer a more generous rate overall than those capital allowances available to incentivise investment in general (as eventually businesses can claim 100% of the value of all assets via the general writing down allowances), doing little to incentivise green capital investment over ordinary capital investment. A capital allowance rate for green investment greater than 100% (a super-deduction) could offer an incentive for businesses to not only bring forward investment that they would have made in future but also, given the extra tax saving, consider making an investment that they would not have otherwise made at all or, where alternatives are possible, choosing the less carbon intensive option. Moreover, a key measure for some large businesses of their profitability – earnings per share – is unaffected by capital allowances offered at a rate of 100% or less given the way that deferred tax is accounted for in financial statements. A rate of over 100% on the other hand would result in a greater earnings per share figure which would make a UK company a more attractive target for investment. A super-deduction would really shift the dial on investment in green assets and this is explored further in Chapters 3 and 4.

Business rates

Another area where tax affects adoption, particularly in land and buildings and machinery integrated to them, is through the business rates system. In general, since the cost of business rates rises with the value of the property, investment by a business (such as retrofitting more energy efficient features) could be disincentivised.

There have been some positive steps taken to remove this disincentive but the consequence has been that the business rates system has become increasingly cluttered and complex to navigate. While the government website lists 13 types of business rates relief, businesses often find there are other reliefs or exemptions, or complexities to the content of reliefs that add to this list. In 2020, the CBI and Avison Young estimated the number of reliefs as 26 with a further 14 exemptions³⁵ and further reliefs or exemptions have been added since then.

One example is the improvement relief which will run from 2024 to 2028³⁶ and excludes all improvements from valuation for a period of 12 months. This measure is not targeted, but when combined with energy efficiency requirements in building controls and building materials, it does generally support green improvements. The temporary nature of the exemption, however, and the lack of a clear link between the cost of improvements and their impact on rateable value, means that this relief is not as effective as it could be.

Another relief targets green investment and enables certain types of renewable generation technology on business premises to be excluded from business rates valuations until at least 2035 (as "*excepted renewables plant and machinery*").³⁷ However, this does not extend to CCUS or hydrogen related plant and machinery (both technologies were identified as a green growth prize by the CBI's Going for Growth Report).³⁸

Recommendation

- Add plant and machinery required to set up CCUS and hydrogen infrastructure to the list of "*excepted renewables plant and machinery*" for business rates.

VAT

Finally, the gap analysis identified some inconsistencies in VAT policy which, if rectified, would increase demand for and therefore adoption of green technologies.

VAT on charging EVs using public charge-points is currently greater (20%) than charging using an at home charge-point (5%), disproportionately favouring drivers with access to a private EV charging point.

Recommendation

- Reduce VAT on public EV charging from 20% to 5%, aligning it with the at home EV charging VAT rate.

VAT on energy saving materials is zero-rated when purchased and installed alone but VAT is standard-rated (20%) if this work forms part of a wider refurbishment programme, which is when most retrofits occur.

Recommendation

- Zero-rate installation of energy saving materials even when they form part of wider refurbishment programmes.

VAT on residential repairs and maintenance (20%) is currently greater than building new homes (0%). This incentivises newbuilds over refurbishment, even though new builds can often be more carbon intensive.

Recommendation

- Zero-rate the VAT on residential repairs and maintenance which reduce a building's carbon footprint e.g. replacing single glazed windows with double glazing (currently 20%) to align with building new homes (0%). This will incentivise refurbishment and retrofitting over demolition and newbuilds.

Green skills

There is a lack of targeted tax policy to incentivise investment in the supply of green skills. The Apprenticeship Levy is the only tax policy lever currently being used in this space to upskill labour and, with numerous apprenticeships identified that can support green careers – ranging from environmental practitioners to countryside rangers and smart home technicians – it should be appropriately targeting the UK's green skills gaps.

However, the mechanism is actually dampening investment. Firms are not making full use of their Levy pot – employers in England have lost more than £2 bn in unspent levy funds since 2019³⁹ – and funds collected as part of the current Levy system are ringfenced, which means unspent money cannot be used flexibly to invest in upskilling or reskilling the current workforce in the green skills required such as retrofitting and heat-pump installations.

Recommendation

- Introduce meaningful flexibility of the Apprenticeship Levy. This should incentivise employers to increase their investment in training that develops new skills, including apprenticeships alongside other accredited qualifications and modules.

Summary

The above gap analysis finds that while the UK has tax policies to support green investment, the UK approach to green taxation so far has been piecemeal, with no clear strategic link to net zero goals. To demonstrate that the UK is serious about using tax policy to shift the dial on green investment, a more ambitious package of support (as has been adopted by competitor nations) that goes beyond tweaking the current system is required. The next chapter unlocks the way forward by analysing the approaches taken by competitor countries.



International comparative analysis

International counterparts have advanced ahead of the UK in the design and implementation of tax incentives for green investment. This section categorises what other countries are doing into four key tax levers. The economies of the countries analysed are comparable to the UK, have recently announced green packages of support which feature tax policy and target specific technologies. Under each tax lever set out below, the objective and form of the lever are set out with specific examples provided. A high-level evaluation of how effectively each lever could be implemented in the UK is offered, using the CBI Business Tax Roadmap's principles (certainty, simplicity, proportionality, and international competitiveness)⁴⁰ as a guiding framework. The section's recommendations are carried forward into Chapter 4 to maximise the UK's green growth prizes.



Capital allowances

Objective: to increase business investment in long-term assets that would either have occurred later or not at all by improving business cashflow and reducing the net present value cost – and therefore the risk – of making such investments.

Form: tax deduction equal to a percentage of a business's investment costs in certain long-term tangible and intangible assets when calculating taxable profits.

Other country examples:

1. Netherlands: The Environmental Investment Deduction (**MIA**) offers a 45% deduction for investment costs related to environmentally friendly investments, while the Vamil offers a deduction equal to 75% of investment costs.⁴¹ In many instances, depending on the asset purchased, you can get both MIA and Vamil benefits for most assets, providing a deduction of up to 120%.⁴²
2. USA: offers a Cost Recovery for Qualified Facilities scheme which allows businesses with a qualifying property⁴³ to deduct from their taxable income the depreciating value of their business assets, such as equipment, faster than the value declines. In practical terms, qualifying facilities or property will be able to take bigger deductions as they will be treated as a 5-year property (i.e. rate of 20% per year) – leaving them with lower taxable income – in the earlier years of a clean energy investment.

UK implementation: UK businesses are familiar with the use of capital allowances as the primary tax relief mechanism to support business investment in fixed assets. The UK tax gap analysis in Chapter 2 covered how capital allowances are currently used in the UK tax system and demonstrated how a super-deduction with a rate of more than 100% (which has precedent having been used recently in the UK)⁴⁴ would shift the dial on business investment. The high rate of relief and familiarity of UK businesses with the mechanism (and therefore lower compliance costs) would help businesses to maximise the benefit of the incentive. A super-deduction will be internationally competitive as few other countries offer the same.⁴⁵ Certainty would be provided by having both a clear timeline of how long the tax relief will be available and what categories of assets will qualify.

Recommendation

- Introduce a targeted green super-deduction at a rate of at least 120% for businesses that invest in capital assets which reduce carbon emissions or improve energy efficiency – ensuring it covers leased and rented assets, and is available to unincorporated businesses to support key sectors like agriculture and construction.⁴⁶

Investment or expenditure tax credits

Objective: to increase business investment in the type of qualifying costs that benefit from the credit that would otherwise either have occurred later or not at all. As they can often be paid in cash to loss-making businesses, they can be used as a form of funding for otherwise high-risk projects, like early-stage R&D.

Form: the tax authority allows businesses to receive a credit based on the value of certain costs or investments. This credit can be offset against their tax liability or in some cases – e.g. if they have no tax liability or the value of the credit exceeds the value of the liability – to receive the cash value of some or all of the credit.

Other country examples:

1. South Korea: tax credits (of up to 25% depending on company size) have been made available for investment in facilities that commercialise national strategic technologies such as rechargeable or secondary batteries, hydrogen, carbon-neutral technologies and future means of transport.⁴⁷
2. Canada: tax credits applied across several technologies needed to support Canada's transition to a *"clean economy while also supporting the creation of good jobs for Canadians"*:⁴⁸
 - Tax credit for clean technology manufacturing: a 30% refundable tax credit is available for investments in eligible property associated with eligible activities for clean technology manufacturing and processing, as well as critical mineral extraction and processing. The 30% rate is available until 2032.
 - Tax credit for geothermal energy: a 30% refundable tax credit is available for companies investing in eligible property that is acquired to generate heat and electric energy solely from geothermal energy. The 30% rate is available until 2034.
 - Clean electricity tax credit: a 15% refundable tax credit for new and refurbishment projects to support clean electricity technologies and expand the capacity of Canada's clean electricity grid and accelerate progress towards a net-zero grid. The tax credit is available until 2034.
 - Clean hydrogen tax credit: between 15% and 40% (rate dependent on carbon intensity of project) for eligible projects' costs to produce clean hydrogen. A 15% tax credit is also available on equipment that converts clean hydrogen to ammonia to facilitate transportation. The tax credit rates are available until 2034.
 - CCUS tax credit: between 37.5% and 60% (depending on the type of equipment) for the cost of purchasing and installing eligible equipment for eligible CCUS projects. The tax credit is available until 2041.⁴⁹

3. USA: tax credits provided for investment in clean electricity and advanced energy projects.⁵⁰
- Tax credit for energy property: 6% on qualifying investment in renewable energy projects (fuel cell, solar, geothermal, small wind, energy storage, biogas, microgrid controllers, and combined heat and power properties).
 - Clean electricity tax credit: will replace the tax credit for energy property after 2024, also at a 6% rate and technology neutral, but only applied to investment in facilities that have a greenhouse gas emissions rate that is not greater than zero. Phase-out starts the later of (a) 2032 or (b) when U.S. greenhouse gas emissions from electricity are 25% of 2022 emissions or lower.
 - Advanced energy project credit: 6% on qualifying investment on a project that re-equips, expands, or establishes an industrial or manufacturing facility: for the production or recycling of a range of clean energy equipment and vehicles; with equipment designed to reduce greenhouse gas emissions by at least 20 percent; or for the processing, refining, or recycling of critical materials.
4. France: "*Crédit d'impôt industrie verte*" [Green Industry Tax Credit] covering 20-45% of investments in qualifying technologies for qualifying projects, with the rate to be decided on a project by project basis.⁵¹



UK implementation: The UK does use expenditure credits in a cross-sectoral way already (R&D tax credits) and to support specific creative sectors (for example, audio-visual and video games tax credits) and these have been successful at driving R&D and investment in the targeted sectors. The form of credit would be familiar to many businesses as a result so it would be relatively easily understood and applied, while accounting for the credit in the Income Statement (in the same way as a grant) makes the benefit more visible to non-tax aware business stakeholders. The international competitiveness of this measure would depend on the rate offered while certainty would be provided by having both a clear timeline of how long the tax relief will be available and what assets would qualify. One clear competitive advantage is that UK expenditure credits currently qualify as refundable tax credits under Pillar II, so would not reduce the effective tax rate of any business using them within the Pillar II rules – unlike equivalents in some other key jurisdictions, including the US. This could be particularly beneficial for attracting large multinational groups, which may be considering different jurisdictions when making an investment.

Recommendation

- Establish a new Green Innovation Credit with a headline rate of 40% for the development of green technologies and processes to ensure we remain internationally competitive and help unlock private sector R&D and innovation to reach net zero and capture green markets.

Production tax credits

Objective: to increase business's production of a particular good or service.

Form: the tax authority allows businesses to reduce their tax liability by an amount equal to a cash amount per unit of output that they produce. Like investment tax credits, it is also possible to design production credits so that a cash amount is refunded to the business if the amount of credit due exceeds their tax liabilities.

Other country examples: the USA's Inflation Reduction Act has introduced a raft of production tax credits in sectors deemed important for decarbonisation:⁵²

1. Clean Hydrogen Production Tax Credit: a production tax credit to produce clean hydrogen at a qualified clean hydrogen production facility. The credit is \$0.60/kg produced multiplied by an applicable percentage ranging from 20% to 100% depending on lifecycle greenhouse gases. The credit is available for facilities placed in service before 1 January 2033 for their first 10 years of service.
2. Electricity from renewables production tax credit: \$0.03/kW (inflation adjusted) is available for facilities generating electricity from wind, biomass, geothermal, solar, small irrigation, landfill and trash, hydropower, and marine and hydrokinetic renewable energy. This will be replaced by the clean electricity production tax credit on 1 January 2025 which offers the same rate, is technology neutral but only applies to facilities for which the greenhouse gas emissions rate is not greater than zero. The tax credit is available until phase out which is the later of (a) 2032 or (b) when U.S. greenhouse gas emissions from electricity are 25% of 2022 emissions or lower.
3. Advanced Manufacturing Production Credit: provides a production tax credit for domestic manufacturing of components for solar and wind energy, inverters, battery components, and critical minerals. This credit is permanent for critical minerals from 2023 but will be phased down for other items from 2030-2032.
4. Zero-emission nuclear power production credit: up to 0.3 cents/kWh tax credit for electricity from qualified nuclear power facilities and sold after 2023. Available for tax years to 31 December 2032.
5. Clean fuel production credit: incentivises domestic production with a base amount of \$0.20/gallon for non-aviation fuel and \$0.35/gallon for aviation fuel. Available after 31 December 2024 to 31 December 2027.
6. Carbon oxide sequestration: \$17/metric tonne of carbon dioxide captured and sequestered or \$12/metric tonne of carbon dioxide injected for enhanced oil recovery or utilised. The credit can be claimed for 12 years after a facility is placed in service. Facilities must be placed in service before 1 January 2033.

UK implementation: the UK currently does not have any production tax credits and adopting this approach would therefore be a step change for the UK's tax system, introducing a layer of complexity for businesses which have not had previous experience complying with such a measure. It is also difficult to predict the proportionality of production tax credits given that there are no test cases in the UK to draw on, while the preferred mechanism used to date in the UK to support projects with high upfront costs, particularly those related to low carbon electricity generation, has been the Contracts for Difference (**CfD**) scheme.⁵³ To be internationally competitive, UK policymakers would need to tailor a rate to a particular good or service and consider how much it would need to stake per unit of output to de-risk a project sufficiently to attract private investment.

Corporation tax rate

Objective: to increase business investment and production in targeted areas by allowing businesses to retain a greater proportion of profits from their investment in these areas, therefore making them more commercially attractive than alternatives.

Form: decreasing the tax rate on profits derived from production of certain goods or services. Often this is time-limited to create an incentive to invest sooner.

Other country example: in Canada, to increase the supply of zero-emission technology manufactured domestically, the government has halved federal corporation tax for both large and medium sized businesses (from 15% to 7.5%) as well as for small businesses (from 9% to 4.5%) for qualifying zero-emission technology manufacturers. The lower corporation tax rate is available until 2031 and then gradually increases.⁵⁴

UK implementation: the UK's use of different corporation tax rates in the energy space tends to focus on increasing tax receipts in sectors benefiting from abnormal profits rather than stimulating activity. Examples include the Electricity Generator Levy for electricity generators⁵⁵ and oil and gas companies subject to the Energy Profits Levy.⁵⁶ However, the UK has used lower corporation tax rates to incentivise businesses to hold patents and commercialise patented technology in the UK, through the UK Patent Box regime, under which businesses can benefit from a 10% corporation tax rate on profits derived from patented assets.

The same approach could be applied to, for example, manufacturers of green technologies where the incentive for production is present in the form of less tax paid. In terms of simplicity, this is the best lever to use: changing the corporation tax rate would impose a lower compliance burden on businesses than any of the other three levers set out in this section. There could be clear economic benefits as evidenced by an analysis carried out by Government which found that the reduction in the main rate of corporation tax from 28% (2010) to 20% (2015-16) resulted in increased investment by between 2.5% and 4.5% in the long term.⁵⁷ The benefits of differential headline rates have increased slightly with the increase in the headline rate to 25% from April 2023, but it may reduce again once the UK implements Pillar II from 1 January 2024 for those businesses within scope, which may have to pay a top up tax if their effective tax rate falls below 15%. Certainty can be provided in the same way as Canada has done (by setting out a clear timeline of how long the reduced level of tax would last). Corporation tax rates are regularly compared, so setting a level that is internationally competitive is relatively easily done.

Recommendation

- Reduce the headline corporation tax rate to 10% as a commercialisation incentive for domestic profits derived from key green technologies.

Summary

Analysing international approaches to green taxation policy sheds light on how other countries are supporting business investment in decarbonisation and offers insights into how the UK could follow suit to remain internationally competitive.

Four key tax levers have been set out above and the CBI's Business Tax Roadmap principles were used to evaluate the implementation prospects of each one in the UK. Capital allowances, investment tax credits and reductions in the corporation tax rate emerge as the preferred options given that their implementation is likely to create less complexity for businesses than production tax credits, which would require a big step-change in tax policy and potentially clash with other policy (such as CfDs).

A common thread running through all the above approaches is that they are all clearly targeted at green technologies; this focus sends a clear signal to businesses as to where they should direct their investment - the next section shows how the UK can do the same.

Maximising green growth prizes

This final section calls on the UK to maintain its international competitiveness by demonstrating greater ambition in the way that it uses its tax system to support green investment. Outsmarting rather than outspending the competition requires a targeted approach. The CBI's 2023 Going for Green Report identified green

**£37-
57bn**

growth prizes which could deliver a £37-57bn boost to our GDP by 2030⁵⁸ if we can overcome the blockers (supply-side, demand-side, and those related to the enabling environment) to their growth. The following identifies the more problematic blockers (those RAG rated red and amber in the report) that tax policy can help address and puts forward recommendations on how to do so.

Electric vehicles

The supply of EVs is still hindered by a lack of domestic cell capacity. The 2023 Autumn Statement announced funding of £2 bn being made available for the automotive sector to support manufacturing and develop zero emissions vehicles, their batteries, and supply chain. In addition, the UK's Battery Strategy and an Advanced Manufacturing Plan were published, both of which emphasise the importance of tax policy in driving R&D and capital expenditure. However, neither publication pointed to new, more ambitious tax policies and instead chose to highlight existing R&D and full expensing schemes as sufficient. Recommendations already made in this paper focused on providing more tax relief in the form of a green super-deduction and a new Green Innovation Credit.

Recommendations

- Ensure the costs of development of EV and battery technology benefit from the new Green Innovation Credit.
- Include capital expenditure required for EV and battery manufacture in scope of the green super-deduction.

Given that the space for tax relief would be more crowded, any further signal to private investors should focus on the simplicity of the headline corporation tax rate and the commercialisation incentive it would provide.

Recommendation

- Reduce the headline rate to 10% for domestic profits derived from development, manufacture and sale of batteries required for use in EVs.

In terms of the enabling environment for EVs, the CBI welcomes flagship proposals to improve the electricity grid and reform planning to speed up energy infrastructure delivery, with low-carbon projects being designated as critical national priorities.⁵⁹ As significant upgrades to the grid will be necessary to ensure that the transition to EVs is able to proceed, capital expenditure for grid improvements should be incentivised.

Recommendation

- Include capital expenditure for grid improvements in scope of the green super-deduction.

Low-carbon power

The key blockers for low-carbon power impacting its demand sit outside tax policy. A clear pipeline of projects needs to be identified to stimulate investment and gaps in targets for onshore wind, small modular reactor uptake and long-duration energy storage need to be filled. However, as highlighted in Chapter 2, the adoption of low-carbon power technologies is not serviced sufficiently well by the existing capital allowances regime.

Recommendations

- Include capital expenditure for low-carbon power in scope of the green super-deduction.

As for EVs, the same issue concerning grid connectivity presents itself as an environment-related blocker to low-carbon power growth and five times as much grid infrastructure will be needed in the next seven years than has been built in the last thirty years.⁶⁰ Including grid infrastructure in scope of the green super-deduction will help to address this issue.

Heat and buildings

Significant blockers to more energy efficient buildings exist across the supply, demand and enabling environment for relevant technologies. In terms of supply, the rate of scaling up heat pumps is slow and too little emphasis is placed on the role of potential hybrid technologies. While heat pumps are being addressed in part by Government through recent increases to the Boiler Upgrade scheme, hybrid technologies have yet to be addressed by Government policy.⁶¹ More should be done to develop the technologies and scale the market.

Recommendations

- Ensure the costs of developing and improving heat pump technology benefit from the new Green Innovation Credit.
- Reduce the headline corporation tax rate to 10% for profits derived from commercialisation and sale of heat pumps.

In addition, high switching costs to more energy efficient technologies are holding back demand while the EPC system needs to measure operational energy consumption of the UK's building stock more accurately (it currently underestimates potential cost savings of retrofitting). Finally, the biggest blocker in the enabling environment is the skills gap, particularly for installers and maintenance engineers.

The Adoption section in Chapter 2 of this paper sets out where the gaps in the UK tax system are currently inhibiting demand for energy saving technologies and the supply of skills, and puts forward recommendations to address these. However, including heat pumps in scope of the green super-deduction is needed to boost UK demand for them (which is one of the lowest in the Europe).

Recommendation

- Include capital expenditure for heat pumps and broader retrofitting in scope of the green super-deduction.

Green services

The blockers identified for growing green services relate to their supply and the enabling environment for them. In terms of supply, the UK lags international counterparts in green finance (only 10% of European Assets Under Management are in sustainable funds), primarily because our legislation is not as up to date as European counterparts (e.g. the UK Green Taxonomy is yet to be finalised). As such, there is a limited supplementary role for tax policy to play.

Biofuels

The current supply of biofuels remains low and despite ambitions to have five sustainable aviation fuel (**SAF**) facilities under construction by 2025,⁶² the sector will be unable to source adequate private sector investment without a revenue support mechanism. Recognising that uncertainty over future revenues remains a barrier to investment, the Government has announced a delivery plan for designing and implementing a revenue certainty mechanism for SAF.⁶³ However, the lack of long term and stable funding has hampered investment opportunities⁶⁴ and so tax policy can supplement investment across the innovation cycle to provide an incentive for businesses to increase supply, grow and turn a profit.

Recommendations

- Ensure the costs of development of new and improved biofuels benefit from the new Green Innovation Credit.
- Reduce the headline Corporation Tax rate to 10% for profits derived from commercialisation and sale of biofuels.

In the enabling environment, planning regulations and high energy costs make the construction of biofuels refining facilities very expensive so they represent a significant investment risk. Ensuring that associated capital expenditure is in scope of the green super-deduction will decrease this risk. Incentivising capital expenditure for businesses that consume biofuels (i.e. refuelling equipment) will also help to strengthen the market.

Recommendation

- Include capital expenditure for biofuel refining facilities (including sustainable aviation fuel facilities) and biofuel refuelling equipment in scope of the green super-deduction.

Hydrogen

As is the case for the supply of biofuels, investors in hydrogen require support to provide revenue certainty. The Energy Bill introduced vital legislation to finalise hydrogen business models that will be crucial to supporting investor confidence in early hydrogen projects. In addition to its supply, providing long-term confidence and revenue certainty in the development of transport and storage infrastructure will improve the enabling environment and will be critical to unlocking private sector investment. Tax policy again can incentivise the development and commercialisation of the required solutions.

Recommendations

- Ensure the costs of development of new and improved hydrogen solutions benefit from the new Green Innovation Credit.
- Reduce the headline corporation tax rate to 10% for profits derived from commercialisation and sale of low-carbon hydrogen and associated storage and transportation technologies.

Policy to support the demand for hydrogen lags supply with limited government mechanisms in place to incentivise decarbonisation of industry, resulting in progress being severely off track. Key funding gaps exist for industrial, manufacturing and energy intensive businesses, hampering progress with the development and adoption of decarbonisation technologies such as hydrogen. A more favourable capital allowances regime will incentivise increased business demand for hydrogen solutions to decarbonise production.

Recommendation

- Include capital expenditure required for the deployment of low-carbon hydrogen to power industrial processes in scope of the green super-deduction.

Carbon capture, utilisation and storage

Blockers to the green growth opportunity for CCUS relate to its supply and enabling environment. There are currently no commercial applications of CCUS in the UK. The supply of CCUS is being addressed in part by the Government's funding to deliver 4 CCUS low-carbon industrial clusters by 2030⁶⁵ while the enabling environment needs to provide long-term clarity and certainty in support mechanisms and regulatory frameworks. However, more investment (including from the private sector) will be needed to enable CCUS's implementation at scale and tax policy can play a role here.

Recommendations

- Ensure costs of development of CCUS technology benefit from the new Green Innovation Credit.
- Reduce the headline corporation tax rate to 10% for profits derived from commercialisation and sale of CCUS technologies.

Demand for CCUS is strong, especially from hard-to-decarbonise sectors and tax policy should take advantage of this by incentivising its adoption.

Recommendation

- Include capital expenditure required for heavy industry to adopt CCUS in scope of the green super-deduction.



Reference

1. State of the Global Climate 2023. [Link](#)
2. Going for Green: The UK's net zero growth opportunity, CBI, 14 July 2023. [Link](#)
3. The Inflation Reduction Act's Benefits and Costs. [Link](#)
4. Going for Green: The UK's net zero growth opportunity, CBI, 14 July 2023. [Link](#)
5. Green investment in this paper refers to business investment in research & development, commercialisation, and adoption of green technology, and the skills needed to decarbonise. Investment by individuals is out of scope.
6. Mission Zero, Independent Review of Net Zero, Rt Hon Chris Skidmore MP, January 2023. [Link](#)
7. Going for Green: The UK's net zero growth opportunity, CBI, 14 July 2023. [Link](#)
8. "*Low carbon power*" mirrors the categorisation used by the CBI's Going for Green Report (Going for Green: The UK's net zero growth opportunity, CBI, July 2023) and includes technologies needed for renewable energy generation, nuclear power and low-carbon infrastructure. [Link](#)
9. Key aspects of the Paris Agreement, United Nations Climate Change. [Link](#)
10. Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs, United Nations. [Link](#)
11. Going for Green: The UK's net zero growth opportunity, CBI, July 2023. [Link](#)
12. The Sixth Carbon Budget, The UK's path to Net Zero, Climate Change Committee, December 2020. [Link](#)
13. Progress in reducing emissions: 2023 Report to Parliament, Climate Change Committee, June 2023. [Link](#)
14. Response to energy profits levy announcement, Confederation of British Industry, May 2022. [Link](#)
15. Clean energy tax provision in the Inflation Reduction Act, The White House. [Link](#)
16. Mission Zero, Independent Review of Net Zero, Rt Hon Chris Skidmore MP, 13 January 2023. [Link](#)
17. For tax purposes, R&D takes place when a project seeks to achieve an advance in science or technology. Meaning of research and development for tax purposes: guidelines, GOV.UK, 7 March 2023. [Link](#)
18. Claiming Research and Development (R&D) tax reliefs, GOV.UK, 21 July 2023. [Link](#)
19. Research and Development (R&D) tax relief: the merged scheme and enhanced R&D intensive support, GOV.UK, 18 March 2024. [Link](#)
20. Merger of current small or medium enterprise (SME) and Research and Development Expenditure Credit (RDEC) schemes, GOV.UK, 23 November 2023. [Link](#)
21. HMRC internal manual: Capital Allowances Manual, GOV.UK, 19 February 2024. [Link](#)
22. Meaning of research and development for tax purposes: guidelines, GOV.UK, 7 March 2023. [Link](#)

23. Use the Patent Box to reduce your Corporation Tax on profits, GOV.UK, 7 May 2020. [Link](#)
24. The changing profile of users of the UK patent system, Intellectual Property Office, August 2021. [Link](#)
25. Mission Zero, Independent Review of Net Zero, Rt Hon Chris Skidmore MP, 13 January 2023. [Link](#)
26. CBI responds to measures due to be announced in Chancellor's Mansion House speech, CBI, 9 July 2023. [Link](#)
27. From idea to start-up to spin-out: Tackling the 'Valley of Death, Onward, 1 November 2023. [Link](#)
28. Autumn Statement 2023, GOV.UK, 30 November 2023. [Link](#)
29. Autumn Statement 2022, HM Treasury, November 2022. [Link](#)
30. Claim capital allowances, GOV.UK. [Link](#)
31. Check if you can claim super-deduction or special rate first year allowances, GOV.UK, 10 October 2023. [Link](#)
32. Work out your writing down allowances, GOV.UK. [Link](#)
33. Claiming capital allowances for structures and buildings, GOV.UK, 3 September 2020. [Link](#)
34. Capital allowances for windfarm design and survey costs, KPMG, 21 February 2022. [Link](#)
35. Over-rated: Making the case for business rates reform, CBI & Avison Young, September 2020. [Link](#)
36. Business rates: Reliefs and grants, House of Commons Library, 5 December 2023. [Link](#)
37. The Valuation for Rating (Plant and Machinery) (England) (Amendment) Regulations 2022, legislation.gov.uk. [Link](#)
38. Going for Green: The UK's net zero growth opportunity, CBI, 14 July 2023. [Link](#)
39. Apprenticeship underspend shrinks to £11m in 2021/22, FE Week, 2 December 2022. [Link](#)
40. Business Tax Roadmap: A roadmap for 2024 and beyond, CBI, 5 July 2023. [Link](#)
41. MIA and Vamil for Entrepreneurs, Netherlands Enterprise Agency, 28 December 2023. [Link](#)
42. MIA \ Vamil: Brochure en Milieulijst 2023, Rijksdienst voor Ondernemend Nederland, 2023. [Link](#)
43. Request for Comments on Certain Energy Generation Incentives, Internal Revenue Service (IRS), 2022 defines a "qualifying facility" as one that is "owned by the taxpayer that is used to produce electricity, placed in service after 2024, and has a greenhouse gas emissions rate of not greater than zero." [Link](#)
44. Guidance: Super-deduction, GOV.UK, 5 March 2021. [Link](#)
45. Worldwide Capital and Fixed Assets Guide, EY, 2023. [Link](#)

46. In the [CBI's Autumn Budget 2023 Submission](#), this policy was costed using [Low Carbon and Renewable Energy Economy data](#) obtained from the ONS which captures Economic activities that deliver goods and services that are likely to help the UK generate lower emissions of greenhouse gases, predominantly carbon dioxide. This is a good starting point for determining which assets should be in scope.
47. The South Korean K-Chips Act and Its Impact on International Companies and Investors, Goodwin, 30 June 2023. [Link](#)
48. Canada Federal budget 2023/24: A made-in-Canada plan, EY, 4 April 2023. [Link](#)
49. Proposed federal investment tax credit for CCUS, EY, 17 May 2022. [Link](#)
50. Clean Energy Tax Provisions in the Inflation Reduction Act, The White House. [Link](#)
51. Ce que contient le projet de loi sur l'industrie verte, Le Monde, 16 May 2023. [Link](#)
52. Clean Energy Tax Provisions in the Inflation Reduction Act, The White House. [Link](#)
53. Contracts for Difference, GOV.UK, 16 November 2023. [Link](#)
54. Canada Federal budget 2023/24: A made-in-Canada plan, EY, 4 April 2023. [Link](#)
55. Electricity Generator Levy on Exceptional electricity generation receipts, GOV.UK, 20 December 2022. [Link](#)
56. Energy (Oil and Gas) Profits Levy, GOV.UK, 21 November 2022. [Link](#)
57. Analysis of the dynamic effects of Corporation Tax reductions, HM Revenue & Customs and HM Treasury, 5 December 2013. [Link](#)
58. Going for Green: The UK's net zero growth opportunity, CBI, 14 July 2023. [Link](#)
59. Huge boost for UK green industries with £960 million government investment and major reform of power network, GOV.UK, 23 November 2023. [Link](#)
60. Going for Green: The UK's net zero growth opportunity, CBI, 14 July 2023. [Link](#)
61. Hybrid Heat Pumps: A Flexible Route to Decarbonise Heat, Heating & Hotwater Industry Council. [Link](#)
62. New measures to support sustainable aviation fuel industry, GOV.UK, 4 September 2023. [Link](#)
63. Revenue certainty mechanism for SAF: delivery plan, GOV.UK, 4 September 2023. [Link](#)
64. A Renewed Industrial Strategy for the UK, ADS, 5 July 2023. [Link](#)
65. Powering Up Britain, GOV.UK, 4 April 2023. [Link](#)

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