Fast-track – Fund – Focus: Maintaining the UK’s cleantech competitiveness

Dear Chancellor and Secretary of State,

The United Kingdom boasts a range of extraordinary features, making the country an economic powerhouse for its size. It hosts productive companies, a global financial centre, world-leading universities, and a massive pool of talented citizens. Despite this, the economic growth and productivity are not fulfilling their huge potential.

As the world enters a new era of cleantech competition, the UK is presented with a once-in-a-generation opportunity to build its economy, unlock thousands of jobs, and deliver a net zero future. As you know, the USA, China, Japan, and the EU are all moving quickly to capture their share of the cleantech market. These countries have set aside World Trade Organisation rules and foregone a free market approach by intentionally subsidising their cleantech industries. The UK needs to respond to the international competition and provide a clear delivery plan to develop net zero industries.

As a coalition of cleantech investors based in the UK, we are committed to driving positive climate outcomes and helping deliver government’s ambition to reach net zero. We have already invested hundreds of millions in cleantech businesses and technology, in the UK and internationally. To continue to compete on an international scale and maintain its position in this new era of industrial competition, the UK needs to be bold.

The government has committed to outlining its own version of a radical plan to boost the green economy in the Autumn. We ask that government considers a three pillar cleantech strategy, alongside a focus on the actions and cleantech sectors outlined below.

The three pillars of a successful cleantech strategy

To not fall behind other economies and to grow our international position, the UK strategy must serve to fast-track innovation and growth by creating an agile and supportive regulatory system, fund projects with government backing and innovative models, and focus our long-term policy framework to develop, scale and deliver a net zero economy.

Priority Actions

- Speed up changes to the National Policy Statements and accelerate planning decisions - currently, companies are expected to direct their different applications and permitting requests to innumerable regulators that each maintain their own rules, processes and eligibility requirements disjointedly from one another.

- Increase investment into the national grid. Ofgem should increase the budget for grid investment substantially and ensure that investment is made ahead of need so that renewable projects are not left waiting for years for a connection, which can currently be the case on the ground for projects that would otherwise be ready to deploy.
**Priority Actions**

- Support innovation scale-up by working with local authorities to identify and support manufacturing sites whilst simultaneously ensuring the appropriate supporting ecosystem and policy environment is put in place to crowd in investment and further activity. This should be done in collaboration with local authorities and local enterprise partnerships. It would enable innovators to commercialise quickly instead of having to lose time looking for suitable places to scale up.

- Support the scale-up of cleantech through blended finance options. A simplified funding system alongside de-risking mechanisms such as guarantees and loans, as well as a more supportive tax incentive scheme, would help attract and mobilise private sector funding. This could be done through existing initiatives such as the British Business Bank, UK Infrastructure Bank and the Green Finance Institute.

- In addition to blended finance, public procurement should be leveraged more effectively to set clear demand markets and share in offtake risks. Public markets, especially in construction and road transport, account for large chunks of emissions. Clear green demand-side signals from the public sector would send powerful market signals, and thus feed into unlocking private capital.

- Accelerate policy development and implementation to ensure the UK meets its emissions targets for 2030 and beyond. Government departments should be empowered to get on with delivering projects to ensure the UK reaches these targets. No policies or targets should be rolled back. Furthermore, the government should set out contingency plans for keeping the UK on track.

**Priority cleantech sectors**

- **Renewables, energy storage and grid management technologies:** UK innovators serve as the vanguard developing multiple renewable energy technologies, yet have failed to convert these foundations into significant exports, as highlighted in The Economy 2030 Inquiry. We should double down on wind and tidal energy, in particular, where the potential returns are highest.

- **Carbon capture usage and storage (CCUS):** While we should always aim to completely design out emissions from industrial processes, the UK has the innovative technology to capture CO₂ both from industrial processes and directly from the atmosphere and the geographical assets to lead the world in carbon capture and storage, if only we built the infrastructure to propel the sector forward. A clear delivery plan for the £20billion of funding announced by the government is needed.

- **Agritech, food management and nature-based solutions:** The UK is home to some of the world’s leading agricultural innovators. These technologies should be enabled to empower farmers and food producers to decarbonise whilst maintaining production levels and shoring up food security in an increasingly uncertain world.

- **Small Modular Reactors and Fusion:** The UK is a significant player in nearly all stages of the nuclear lifecycle – from research and development, fuel fabrication, and waste management to energy production and regulation. The government should be far faster in making decisions and providing stronger market signals to capitalise on investment opportunities in this sector.

- **Hydrogen and derivatives:** The UK has been ranked third amongst countries that have the potential to be global leaders in hydrogen development. With clearer targets, business models and manufacturing of electrolysers in the UK, we have the potential to rival even the first-ranked country, Germany.
Priority cleantech sectors

- **Energy efficiency and the built environment**: The UK has the oldest housing stock in Europe. Retrofitting and upgrading it offers a huge opportunity to help the UK meet its own climate targets whilst also providing thousands of local jobs and new opportunities for skills development.

- **Electric Vehicles and associated infrastructure**: With the recent investment into the battery gigafactory, the UK has the opportunity to revive its car industry, but requires the supporting infrastructure to capitalise on this investment.

Keeping pace with the competition

Since last year, the USA has mobilised unprecedented billions of public funding through its Inflation Reduction Act (IRA), aiming at global cleantech dominance. The Inflation Reduction Act is expected to create 9 million jobs by 2032 across the United States, a large share of which are going into areas which will see their livelihoods impacted by the green transition.\(^2\)

In parallel, the EU is rolling out its Green Deal Industrial Plan, which is also a response to the American policy package. The flagship Act proposed by the European Commission, the Net Zero Industry Act, looks to support the scaling of select clean technologies, and simplify the regulatory burden for strategic sectors.

Whilst the UK should be proud of what it has already achieved with the reduction in domestic emissions and with the milestone of being the first major economy to make law of its commitment to net zero, if the UK does not act, it risks losing out on private investment. Companies formed in the UK (and often spin-outs from our most prestigious universities) will face increased pressure to scale their technologies and commercialise their Intellectual Property in countries with more favourable terms and thousands of high-paying jobs risk being lost or not created.

The economic opportunity

The recent [Cleantech for UK report](#) highlighted that over the last 5 years, thanks to significant investments, the UK has become a powerhouse of cleantech innovation, attracting £2.8 billion of investment in 2022.\(^3\) Yet, evidence documented in the report shows the UK is still struggling to scale and commercialise these technologies. Thus, the UK is not capitalising on the opportunity to create a larger number of high-skilled jobs and drive economic growth by leveraging this R&D.

With the size of the prize estimated to reach $650 billion per year by 2030, and net employment creation in the UK, estimated between 135,000 and 725,000, it is vital the UK takes steps to increase its attractiveness to cleantech companies.\(^4\)\(^5\) Such policy offers a path to drive long-term competitiveness for the UK’s economy, establish green jobs for its citizens, support its traditionally trailblazing climate goals, and energy security in a geopolitically unstable world.

Widespread public support

The Department for Energy Security and Net Zero’s [Public Attitudes Tracker](#) shows over 80% of people are at least fairly concerned by climate change. In a survey from **IPSOS**, two thirds of
respondents (63%) agree the country needs to do more to tackle climate change and only one in three (32%) see Britain as a world leader against climate change.

A YouGov poll suggests 75% of respondents believe the government will not meet its 2050 net zero target. Another YouGov poll shows that 46% think that the government is not doing enough to reduce climate emissions (32% Conservative voters, 60% Labour voters).

The need to supercharge our cleantech innovators and deploy them at great scale is underpinned by the fact that 64% of UK citizens believe that the economy is the most important issue facing the country. Indeed, the transition to net zero can boost productivity, provide more highly paid jobs, level up the country, bring economic growth, and the technological advancements we will need for the coming decades. 78

What can the UK do?

The UK can further develop its ability to offer innovative financing. It can harness even more of its scientific acumen and its ability to develop regulatory frameworks that are fit for purpose and enable competitive market mechanisms. That way, the private sector can lead on delivery of the government’s net zero targets, empowered by policy and strengthened by the public financing that unlocks private capital.

The UK has been ambitious in setting headline targets and delivering strategies for net zero, but it now needs clearer, more detailed delivery plans and mandates. The plans must encompass close collaboration with investors, industry, regulators, and local and national governments to create an agile policy and regulatory environment. Furthermore, simple, innovative funding mechanisms are needed to capitalise on the opportunities of a net zero transition.

The UK economy works at its very best when there is a coordinated effort from policymakers, businesses, and society to address challenges faced by the country. Supporting and strengthening the UK’s cleantech sector and acting against climate change offers a chance not just to address the climate crisis, but to revitalise the stagnated economy. We currently have a unique opportunity to ensure that the UK continues to lead in the technological advancements which will take us to the next decade of industry.

Our proposed three-pillars approach and six impactful actions, alone or in combination, would greatly enhance UK cleantech companies’ ability to scale and unlock private investment. These recommendations are based on our many years of experience in the UK cleantech sector, and our dedication to unleashing the UK’s true economic potential in this new era of global industrial competition.

We would greatly appreciate the opportunity to discuss the contents of this letter with you at a private roundtable event, which we would be honoured to organise and host at your convenience.

Yours sincerely,

Sarah Mackintosh – Director, Cleantech for UK
& The Members of the Cleantech for UK Coalition:
Annex 1: Financial Information

The UK would have to spend a total of £33 billion on cleantech over the next 10 years to spend the GDP equivalent of the Inflation Reduction Act (IRA). The IRA commits to spending an estimated $369 billion in Energy Security and Climate Change programs over the next ten years. To understand the magnitude of this number in the UK context, the UK GDP equivalent has been calculated. 9

The IRA is equivalent of 1.45% of US GDP (2022 figure GDP used: $25.46 trillion). 10 UK GDP in 2022 was £2.2 trillion. To meet the 1.45% GDP equivalent, the UK would thus need to spend £33 billion. The UK government committed £30 billion in the 2021 spending review for net zero. 11

That said, the $369 billion is an estimated figure from the Congressional Budget Office, and a part of the incentive scheme includes uncapped tax credits. Goldman Sachs have estimated the cost of the program to be much higher: placing the programme's true size, tax credits included, at $1.2 trillion dollars by 2032. That number would equate 4.7% of US GDP. For the UK to reach that GDP equivalent, it would need to spend £107 billion.

Regardless of the exact cost of the US programme, however, it is expected to unleash another $3 trillion in investment by private investors. 12

Although the Inflation Reduction Act is not sector-specific, analysis from McKinsey (figure 1) has shown which sectors will benefit most from the various financial incentives.

![Chart showing energy funding by theme and source](image.png)

*Figure 1: Analysis from McKinsey & Company showing which sectors will benefit from the Inflation Reduction Act.*
UK current commitment spend  
(figures taken from Powering Up Britain)

Figure 2 below charts the government spend set out in Powering Up Britain. The graph represents both money spent, and money committed. It should be noted that there may be some double counting as each pot set out in Powering Up Britain was not clearly defined as to what was included. It also doesn’t represent all government spending on net zero, only what was outlined in Powering Up Britain.

![Figure 2: Government committed spend by sector in £.](image)

6. https://yougov.co.uk/topics/education/trackers/the-most-important-issues-facing-the-country
7. A Cambridge Econometrics study estimated over the period 2020-2050, GDP would be around 2-3% higher supporting around 300,000 additional jobs. https://www.theccc.org.uk/publication/economic-impact-of-the-sixth-carbon-budget-cambridge-econometrics/
8. CBI analysis estimates a £37-57 billion boost for the economy by 2030 (equivalent to between 1.6% and 2.4% of GDP) https://www.cbi.org.uk/media-centre/articles/pressing-the-accelerator-on-green-growth-could-earn-up-to-57-billion-for-the-uk-economy-by-2030/
11. https://commonslibrary.parliament.uk/research-briefings/cdp-2023-0124/