

The Net Zero Strategy provides a foundation which now needs to be cemented in investment, tax, and regulatory decisions



The UK government has delivered on its promise to publish a strategy for driving the country's economy towards net zero emissions by 2050. [Esin Serin](#) and [Anna Valero](#) write that the economy-wide Net Zero Strategy provides further proof of the UK's ambition to lead on global climate action as it calls on other countries to follow suit.

Recent years have seen a welcome change in policy rhetoric on net zero, with more emphasis on the economic (and wider) opportunities it brings, rather than framing decarbonisation only as a 'cost'. This is reflected strongly in the Net Zero Strategy as well as the HM Treasury's Net Zero Review which complements it. But against the backdrop of stagnant productivity since the financial crisis, followed by the economic shock caused by the COVID-19 crisis and change due to Brexit, it is crucial that environmental and growth/recovery policies are truly joined up, providing clarity and certainty that can stimulate the business investment that is required.

Timely investments in productive, resource efficient, and smart digital assets and associated [innovation](#) are central to the net zero transition at least cost, and also to secure a strong recovery from the pandemic that is sustainable and resilient to the [wider changes and challenges](#) facing the UK economy. A new, and all encompassing, economic strategy for the UK is urgently required in light of the [changed context](#) we find ourselves in. With the appropriate measures in place to address distributional aspects of the transition for workers and consumers, this new economic strategy can, and must be, more inclusive than what has come before.

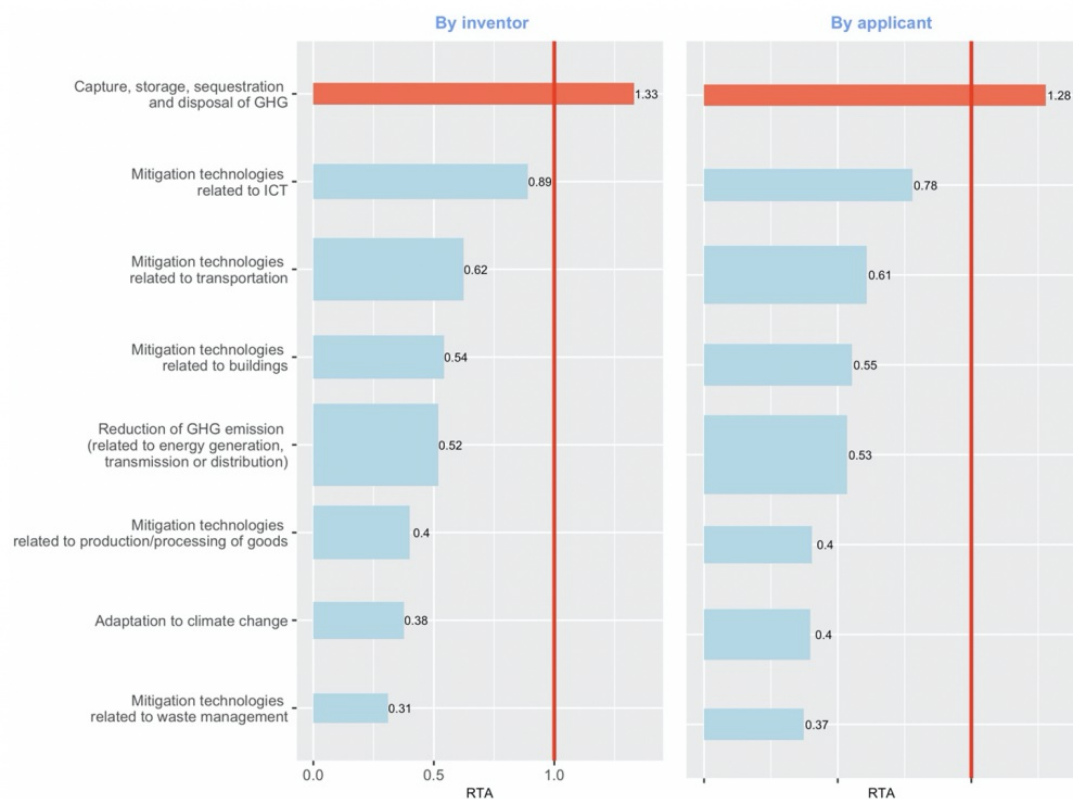
Identifying opportunities

Within such a strategy, how can new, 'clean' opportunities be identified? One approach analyses [patents data](#) and has revealed that there are a number of clean technologies where the UK has revealed technological advantage, in particular ocean and wind energy technologies where the economic returns to investments in R&D are also particularly high.

Our recent detailed study of [carbon capture, usage, and storage](#) (CCUS), an emerging industry, has found evidence of significant opportunities in the UK. Indeed, the government's doubling of its CCUS ambition since its [Ten Point Plan](#) of just one year ago in the Net Zero Strategy demonstrates increasing recognition of the sector's importance. CCUS demands skills and capabilities similar to those found in today's carbon-intensive industries and as an export industry, could account for almost [50,000 direct jobs](#) in the UK in 2050.

Across broad classes of 'clean' technologies, our patents analysis finds that CCUS is the area where the UK has strongest comparative advantage (Figure 1). Moreover, we have seen especially strong patenting activity in the North East and North West of England, corresponding to the industrial clusters chosen to benefit from the first round of government support for CCUS as part of the Strategy. Our paper therefore points towards a potential for CCUS to contribute to regional growth across the UK – and hence 'levelling up' – if supply chains can capitalise on regional strengths in innovation.

Figure 1: Revealed technological advantage (RTA) of the UK in CCUS-related compared with other broad clean technology categories, 2000–15.



Notes: The length of each bar on the horizontal axis shows the RTA; the width of each bar on the vertical axis reflects the number of patent families in each technology category. GHG = greenhouse gas. ICT = information and communication technologies. Authors' estimates based on PATSTAT – 2018 Spring Edition.

The critical decade for net-zero investments

The [Intergovernmental Panel on Climate Change](#) has highlighted the immense dangers of going beyond 1.5°C, and time is running out for the world to take the action necessary to limit global warming to this level. COP26 must now convert the ambitious targets agreed in Paris into action.

The Climate Change Committee estimates that net-zero capital investment needs to [grow fivefold in this decade](#) but the government's Strategy is lacking in detail as to where investments at such scale will come from. Similarly, the need for sustainable investments for [growth](#) is also urgent – following years of underinvestment in [infrastructure, innovation, and skills](#) in the UK.

The Net Zero Review rules out borrowing on the grounds of intergenerational fairness – while this is a crucial debate, surely the priority for this generation must be addressing worst impacts of climate change while we still can, as an irreversibly warming planet and all the destruction that would entail would surely be the most unfair legacy to leave for future generations. Investing now to create a more productive, resource efficient, and resilient economy will also be a positive legacy for future generations. We have argued before that [borrowing for productive investment in long-term assets](#) must be distinguished from spending.

With borrowing removed as an option, it is unclear how demands on the public purse will be met. This makes the lack of focus on a comprehensive fiscal reform more pronounced. The Strategy highlights risks due to the 'lost revenues' from fuel duty, but a properly designed carbon tax can raise much needed revenues by making the polluter pay. And rebalancing policy costs from electricity to gas bills will be a crucial step for creating the right incentives for decarbonising homes, but there is still a lack of detail on implementation. A robust carbon price is a [necessary, but insufficient condition](#) for achieving the net zero transition. To achieve change at the scale and pace that is required, it must be accompanied with support for R&D, regulation, standards and shifts in public attitudes.

Behaviour change

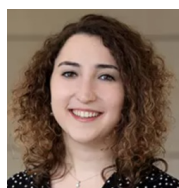
Significant lifestyle changes including reductions in flying and meat-eating will be required from citizens and consumers as part of the net zero transition. In fact, [the Climate Change Committee estimated](#) that about 60% of measures required to meet net-zero emissions in the UK will involve behavioural and societal changes.

However, hesitant language about encouraging behaviour change in the Net Zero Strategy and the [retraction of the Behavioural Insights Team report](#) published alongside it within hours casts doubt on the government's willingness to make this a topic of honest conversation with the public. This is counterproductive given the numerous economic and health co-benefits across areas where changes in behaviour are needed to meet net zero – including cleaner air, less congested cities, and better heated homes. Highlighting such benefits can influence behaviours, but the government has a role beyond awareness-raising: to create the appropriate conditions with interventions to make it easier and more desirable for people to make lower carbon choices. Having the public onboard is a prerequisite for net zero and can also be a driver of the [required innovation](#).

Final word

Some critical voices have pointed out the lack of detail contained in the Net Zero Strategy. The reality is that net zero is a long-term transition and the government cannot be expected to have all the answers today around the scope for emissions abatement from emerging technologies and behaviour change. Nevertheless, clarity and direction from the government is crucial. The Net Zero Strategy provides a foundation which now needs to be cemented in investment, tax and regulatory decisions as part of a coherent and sustainable economic strategy. Yet, in Budget 2021, government cancelled plans to raise the fuel duty (which has already been frozen for over a decade), and cut taxes on domestic air travel – such changes are not consistent with accelerating the changes in behaviour needed to meet net zero. In the UK, and the world, this needs to be the time to convert environmental strategies and plans into economy-wide action.

About the Authors



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