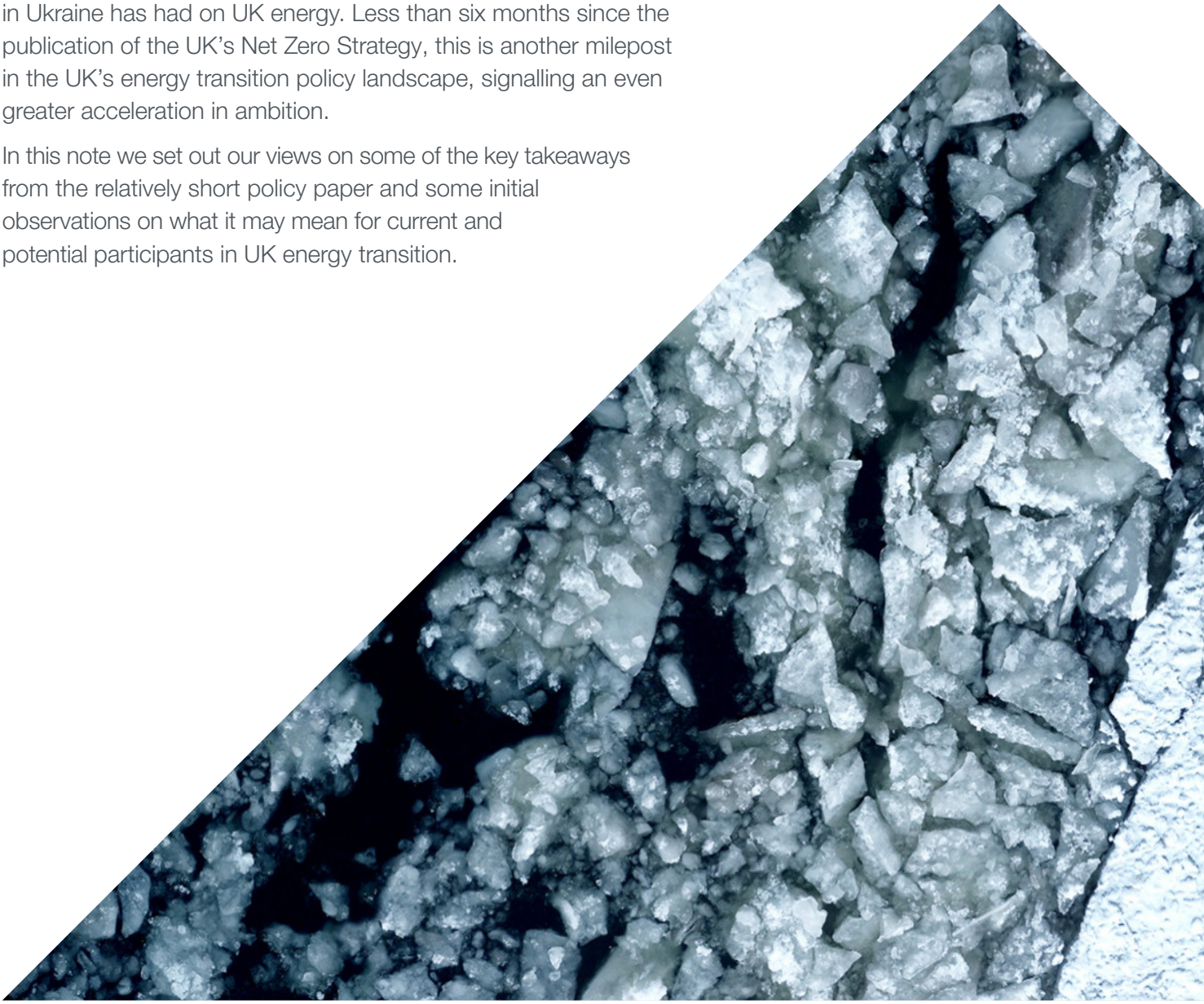
ALLEN & OVERY

The British Energy Security Strategy

Yesterday the UK Government published its British Energy Security Strategy in response to the impact that global energy supply constraints post COVID recovery and the outbreak of war in Ukraine has had on UK energy. Less than six months since the publication of the UK's Net Zero Strategy, this is another milepost in the UK's energy transition policy landscape, signalling an even greater acceleration in ambition.

In this note we set out our views on some of the key takeaways from the relatively short policy paper and some initial observations on what it may mean for current and potential participants in UK energy transition.



The Trilemma

The steep increase in global energy demand post COVID and the horrific escalation of hostilities in Ukraine has meant the traditional energy trilemma (i.e. the triple challenge of affordable energy vs green energy vs security of supply) has twisted on its axis again. Security of supply is now centre stage. But the context is different – the Net Zero agenda has gathered a momentum and urgency of its own, in which much political capital has already been invested by the UK Government. The British Energy Security Strategy (the Strategy) is therefore the UK's attempt to meet those two corners of the triangle at once: asserting that no compromise is needed between the two, as the Strategy can achieve a "win-win" outcome.

Key policy decisions and targets

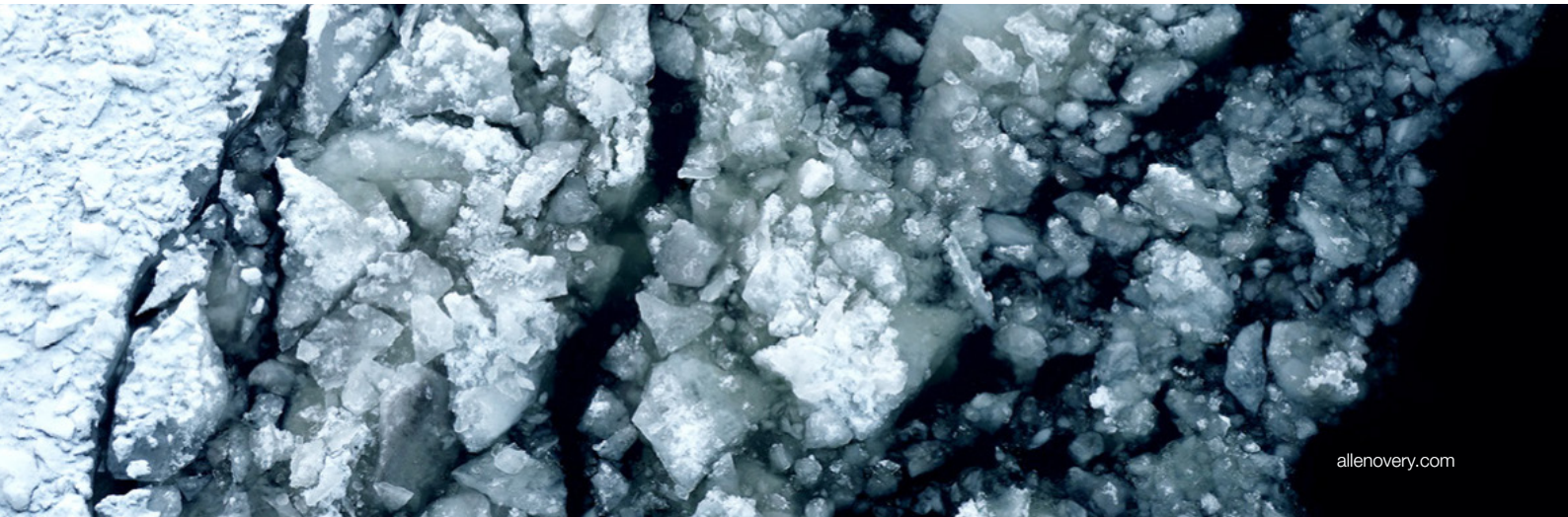
In short, the key message of the Strategy is to transition quicker. It demands more nuclear faster; more renewables faster; more hydrogen faster, targeting a UK electricity system that is 95% low carbon by 2030.

(a) Massive investment in nuclear

Possibly the biggest policy shift in the Strategy is the decision to recover the UK's position as a global leader in civil nuclear by massively increasing investment in new build nuclear power. The Strategy targets increasing nuclear power capacity to up to 24 GW by 2050 so as to meet 25% of forecast electricity demand. Exactly what this looks like in terms of additional projects beyond Hinkley Point C is not spelt out. The Strategy repeats the previous target to get one project to FID by 2024, but signposts 2 more getting to FID by the end of the following parliament and the potential for a total of 8 reactors in the pipeline, across large projects and small or advanced modular reactors.

This significant ambition is accompanied by a promise to radically change how nuclear projects are delivered in the UK. The Nuclear Energy (Financing) Act 2022 establishing the legislative basis for the regulated asset base funding model for UK nuclear received royal assent last week and Government expects to initiate the selection process for further projects to be awarded support next year and enter negotiations with credible projects as soon as possible. The Strategy also announces the intention to establish the Great British Nuclear Vehicle to help projects through the development process.

In short, the Strategy signals a renaissance in UK nuclear. It will need a huge value for money investment by the consumer and taxpayer, but will be central to any plausible path to Net Zero as well as having strong security of supply benefits.stem that is 95% low carbon by 2030.



(b) Even more renewables

The Strategy further increases targets for offshore wind growth, setting a target to increase offshore wind capacity to 50 GW by 2030, up from just over 10GW at present (the target in the Net Zero Strategy had been 40GW by the end of the decade). Interestingly, the Strategy targets at least 10% of that capacity coming from floating offshore wind, allowing greater exploitation of the UK's deeper seabed areas.

Onshore, as has been picked up a lot in the mainstream press, there is more modest treatment of the politically sensitive area of onshore wind, but a fivefold increase in deployment of solar is expected by 2035, particularly on ground-mounted arrays on non-protected sites and measures to encourage rooftop deployment.

Less well reported is the Strategy's commitment to aggressively explore renewable opportunities presented by Britain's geography and geology, namely tidal and geothermal.

The primary investment support to encourage renewable build out remains the Feed in Tariff Contract for Difference, now on an accelerated annual allocation regime with the next round (Allocation Round 5) expected in March 2023. The Strategy also includes an interesting comment that the UK Government is actively exploring the potential for international projects to provide clean, affordable and secure power, for example by expanding the Contract for Difference scheme to projects outside of the current UK geographical limit.

(c) Doubling down on hydrogen

The UK is now targeting 10GW of low carbon hydrogen production by 2030 (doubling the previous target of 5GW set in last summer's hydrogen strategy) at least half of which will come from "green" hydrogen and the rest from "blue" hydrogen utilising the carbon capture and storage (CCS) being developed through the UK's CCUS cluster sequencing process.

The Strategy signposts that further information may be forthcoming this month, including indicative heads of terms on the hydrogen business model, the launch of the Net Zero Hydrogen Fund, and delivery roadmaps for CCS and hydrogen. The intention is to run annual allocation rounds in respect of hydrogen revenue support, moving to competitive allocation by 2025.

The Strategy focuses on hydrogen's role as an energy storage vector to stabilise an electricity system dominated by renewables. However, perhaps most interesting is the reference in the Strategy to the design of a new business model for hydrogen transport and storage infrastructure by 2025. This is new news and may address part of the hydrogen value chain where thinking has been less developed to date. It remains to be seen the extent to which this business model will learn from the regulated income model being developed for carbon transport and storage networks, where extensive support is provided for structural volume and price risks in a nascent market.

(d) Second lease of life for oil & gas

One of the more controversial aspects of the Strategy will be the reprieve it grants to North Sea oil and gas. If gas is necessarily going to be part of the UK energy mix as a transitionary fuel for a long time yet, then it might as well be (greener) British gas (or so the theory goes).

The newly re-branded North Sea Transition Authority will launch the first licensing round to be held since 2020 and New Project Regulatory Accelerators will be set up to facilitate rapid development of oil and gas projects.

The Strategy asserts that there is no contradiction between the UK's commitment to net zero and a strong and evolving North Sea industry. Any licences applied for under the new licencing round planned for the autumn will be assessed by the North Sea Transition Authority under their new climate compatibility criteria which will favour future developments that are low carbon intensity projects and have CCUS optionality at the end of the field life. There also appears to still be an expectation that the UK oil & gas industry will continue to invest billions in the development of nascent clean technologies such as hydrogen and carbon capture, as they committed to in the North Sea Transition Deal. It is unclear if there is to be any re-shaping of that deal in light of the changed circumstances.

The Strategy says the UK remains "open minded" about the potential for exploitation of onshore shale reserves, but the current hiatus on investment will remain unless there is a change in the science.

The potential challenges to achieving the ambition

There could be many challenges to achieving the exceptionally high ambition set out in the Strategy at the pace required, many of which are not new, but some of which are considered in the Strategy itself.

Addressing planning, consenting and regulatory red tape and delays is a recurring theme of the Strategy for different technologies. For example, the aspiration is to cut the time taken to consent an offshore wind farm from 4 years to 1. Even in relation to nuclear, there are aspirations of streamlining consenting and licensing processes for new nuclear power stations, but without impacting the robust safety, security and environmental protections.

One key hurdle to increasing renewable electricity capacity continues to be the network itself. Ensuring that the onshore and offshore electricity network can expand in a coherent, timely and cost efficient manner to connect new energy generation sources and accommodate increasing volatility, is critical. The Strategy acknowledges this, recognising the need for anticipatory investment and including commitments to, among other things, halve the time it takes to get network infrastructure built and develop appropriate policy to enable investment in large-scale long-duration energy storage, alongside steps already announced to establish the Future System Operator and undertake Holistic Network Design.

Other key challenges to meeting the ambition of the Strategy will include:

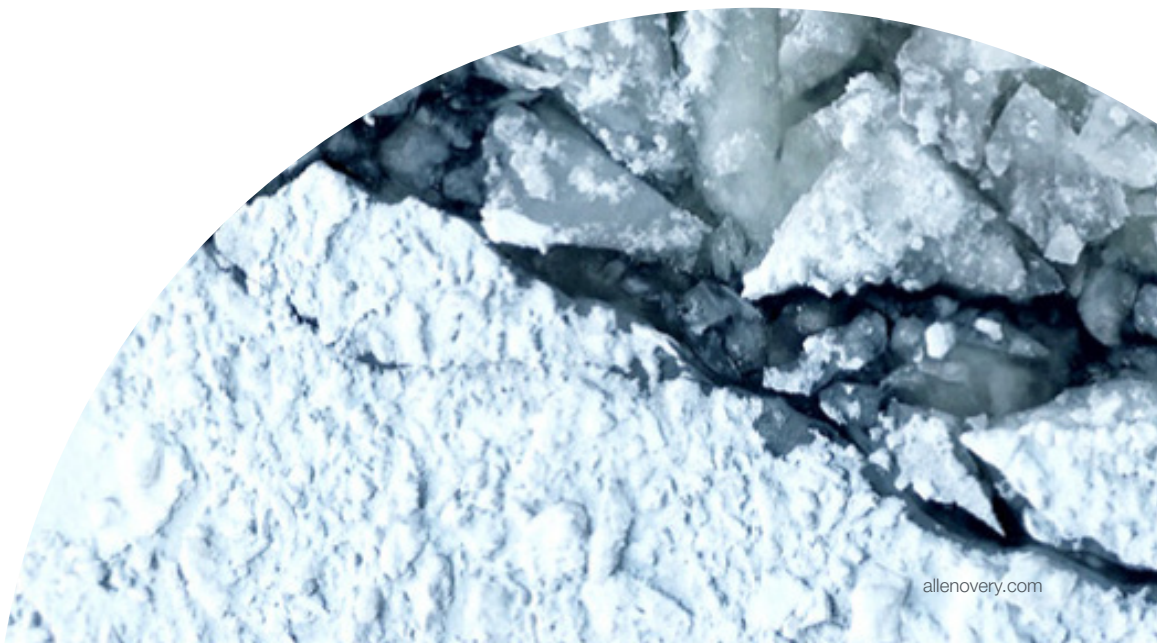
– the legislative and regulatory bandwidth available to implement policy measures envisaged in a coherent manner;

– the speed at which currently immature technologies can be developed and scaled;

– supply chain availability, competence and capacity to deliver so many projects.

A key question is where the Strategy leaves the third corner of the trilemma – affordability. The energy price rises that accompany security of supply concerns may, in theory, be eased by greater self-sufficiency. However, potentially transient supply and demand induced price rises may be replaced with deeper, steeper and long term price rises in order to fund the accelerated build out of low carbon technologies, potentially introducing political risk to realising the ambition.

Indeed long-term political risk will be a consideration for investors. Ambitions such as the development of new nuclear capacity and the granting of new offshore oil and gas exploration acreage in the North Sea will only translate in to first power/gas in 10+ years from today. As priorities shift in the future and governments change, policy direction and resources could well be shifted away from these longer term ambitions towards other sources of energy.



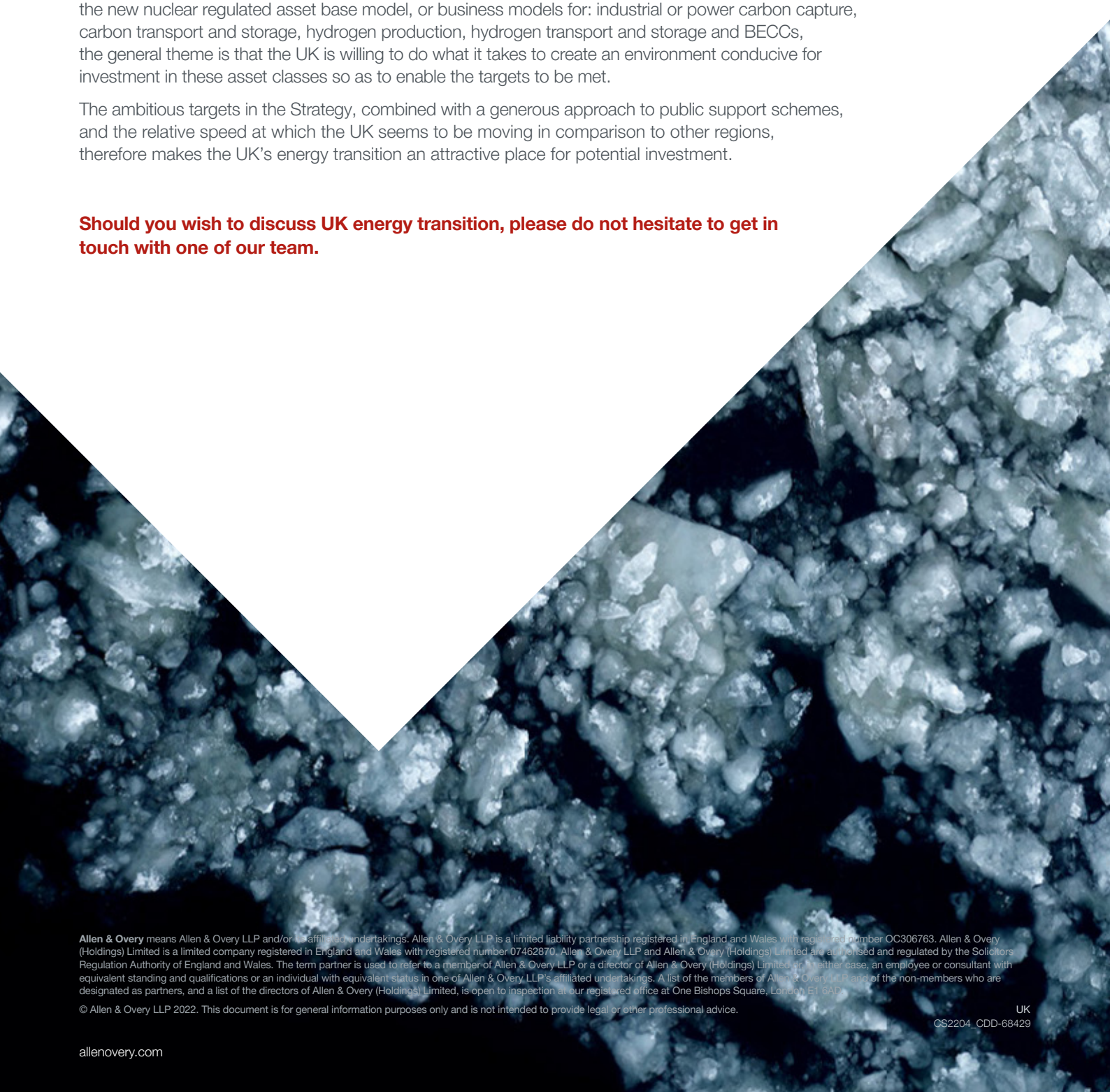
What does the Strategy mean for investors in UK energy transition?

Of course, the intention is that private capital will fund the technologies and projects foreshadowed in the Strategy and the very deep liquidity seen for offshore wind projects over the past 12-18 month may be testament to this.

However, whilst a future of subsidy free offshore wind and solar is more foreseeable, the UK government is offering expansive subsidy and revenue support regimes for other low carbon technologies in order to address key risk issues and entice private capital to participate. Whether it be through the existing CfD, the new nuclear regulated asset base model, or business models for: industrial or power carbon capture, carbon transport and storage, hydrogen production, hydrogen transport and storage and BECCs, the general theme is that the UK is willing to do what it takes to create an environment conducive for investment in these asset classes so as to enable the targets to be met.

The ambitious targets in the Strategy, combined with a generous approach to public support schemes, and the relative speed at which the UK seems to be moving in comparison to other regions, therefore makes the UK's energy transition an attractive place for potential investment.

Should you wish to discuss UK energy transition, please do not hesitate to get in touch with one of our team.



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