

ENERGY  
TRANSITION

# BUBBLE TROUBLE AS CAPITAL POURS IN, IS GREEN POWER STILL A SOUND INVESTMENT?

**The green energy revolution heralds stranded assets and uncertain returns.**

**Key takeaways**

- The last three years have pushed down returns and stoked bubbles in a number of clean energy spheres
- Established renewable specialists will have to learn to work and contract with traditional energy players now entering the market in droves
- State support will be crucial in turning speculative clean energy applications into commercially viable projects for business

Thrilling as they may be to energy transition nerds, wind farm auctions do not generally make the wider news. Yet the Queen's property manager, The Crown Estate, managed such a feat in February when its round four auction of leases for prime offshore sites generated bids at levels that left hardened industry veterans open jawed. Skipping over to the more glamorous enclaves of California's technology and venture capital community, meanwhile, and an equally striking stampede of investors into green energy is in full flight. The meteoric rise of special purpose acquisition companies (SPACs) has already spilled oceans of ink in the business press after a remarkable run of IPOs during 2020. Less appreciated is how much of the accumulating billions of SPAC dollars has found its way into green energy projects, though the frenzied debate around the \$20bn-plus valuation of much-hyped battery pioneer QuantumScape has certainly made waves.

By any yardstick, green energy investing is booming, in a dynamic reminiscent of the first great push into renewables between 2005 and 2010 but on a much-

enlarged scale. While the earlier green boom saw many investors out-of-pocket amid dashed hopes of quick technological breakthroughs and uncertainties over feed-in tariffs in parts of Europe, the current drive has wider support. Most importantly the 2015 Paris Agreement on climate change action has accelerated state action at a global level, pressing many corporates and investors to commit to clean energy. As important, wind and solar power went mainstream during the 2010s – a decade in which the costs of solar power plunged more than 80% – becoming a significant and rapidly-growing part of electricity generation in many developed economies and making green power a commercially viable reality.

But is the current flood of capital hitting the sector sustainable? While few doubt the underlying economic rationale of mainstream renewable projects, the level of investment in even more established sectors has raised doubts over returns. Citing The Crown Estate's aforementioned offshore auction, which was dominated by bids from major energy players like BP, Total and RWE, HFW construction partner Richard Booth notes: "The prices they've achieved on those lease options are just astronomical compared to what's been achieved before."

Pointing to heavy investment into offshore wind projects, a trend that has been further stoked globally by the change in administration in the United States and the emergence of floating wind rigs that can be deployed in a wider range of coastal waters, Booth says new players are entering the market, including some with less knowledge of the specialist construction involved. "Outfits like Orsted have established relationships in the supply chain, whereas it's going to be harder for oil and gas majors to know the offshore wind approach to risk sharing or where the pinch points are for things like fabrication yards, heavy-lift offshore vessels or the hammers to put the monopiles into the seabed."

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Booth argues, moreover, that the “booming” global offshore wind sector risks a resource capacity crunch, which could further hamper upcoming construction projects and the achievability of the UK government’s challenging target of 40GW of installed offshore wind capacity by 2030. “What’s obviously going to happen is that there’s going to be more projects coming but it’s not necessarily the case that the size of the offshore fleets capable of transporting and installing these very large offshore wind turbines can keep up with demand. Contractors can’t keep up with projects. You have heavy-lift vessels with long commitments, and they can be on the other side of the world. One project falls behind and then throws everything else out for the projects that the vessel was due to move to next, let alone the downtime required for essential vessel maintenance.”

Alex Kyriakoulis, a restructuring specialist at HFW, notes how investors and energy firms are loosening their criteria for viable investments to build positions in green energy. “In the old days you may have never touched anything unless you had all the boxes ticked, whereas today you might have to just do this on a more speculative basis because you really want to get into renewables.”

One renewables specialist at a commodities trader goes further noting: “There’s a huge problem. There’s definitely a big bubble because there’s a lot of capital... That’s a challenge because there’s a lot of people willing to invest in renewables, so, with increasingly lower returns, we need to find our niches to make sure it’s a justified investment.”

IJGlobal editorial director Angus Leslie Melville, a veteran observer of clean energy, says that renewables are “pretty much the only show in town” in UK infra investment, adding that lenders have been “cutting their throats” to get in on offshore wind projects. Noting the additional impact of oil majors shifting their focus from fossil fuels, he predicts big oil outfits will be “massive – everyone is transitioning. They don’t want to be oil and gas companies.”

While such trends are positive for expanding capacity and cutting costs of green energy, it is a more mixed picture from a medium-term investment perspective. Stranded assets typically refer to fossil fuel resources that become uneconomic due to climate change commitments, but ironically the term has been attached to some renewable projects that have been pumped out on questionable projections or been overly reliant on fickle subsidies. Spain in particular is seen by many as on course for its second solar bubble, echoing its experience a decade ago, with a stampede for new projects that risks massive over-supply.

### Ready to pounce

If supply and demand issues are stalking proven renewable sectors, the biggest questions remain over bets on a series of more speculative technologies. Probably chief among them is hydrogen, a power source championed by many as the Heineken of green energy, a solution that can reach parts like heavy transport and heavy industry that other renewables struggle to touch. The fuel also has storage applications by using excess renewable energy to produce green hydrogen. Says Kim Carnahan, a senior US specialist in green technologies at ENGIE Impact: “The real value [of hydrogen] is that it can help with hard-to-abate sectors and it can be a renewable energy storage vector. Anything hard to electrify, green hydrogen can power.”

But while investment has been pouring into green hydrogen, even its supporters concede its roll-out will require a number of major breakthroughs, including dramatic cost reductions in production. Carnahan says hoped-for support from the Biden administration for the sector, such as tax or production credits, would see private sector backing and trigger huge economies of scale, with many companies “ready to pounce”, adding: “I expect a severe escalation as soon as there is a better policy signal supporting hydrogen.” Many serious energy operators and investors are backing hydrogen, with the AIM-listed ITM Power, which makes hydrogen production equipment, has seen its share-price rocket 20-fold over the last two years to hit a £2.6bn valuation. Many governments, meanwhile, are planning to roll out subsidies and incentives to support hydrogen. Still, the debate rages on if hydrogen can live up to the sales pitch, an ambivalence illustrated in a recent series of pieces by The Financial Times dubbed ‘Hydrogen – Fantasy or fuel of the future?’ And similar questions have been raised about a host of other technologies attracting investment, such as synthetic aviation fuel and attempts to secure breakthroughs in battery technology.

Green investment is itself being further stoked within the fund management community as major financial institutions have moved to embrace net zero policies in their own operations and portfolios, a process that looks certain to ramp up through the current decade. But while green investment shows many signs of a bubble, by consensus the fundamentals behind clean energy are on a firmer footing than a decade back. Above all, the wave of government intervention via subsidies, regulation and policies is moving clearly and progressively in the direction of clean power. The huge advances in renewable energy over the last decade furthermore have demonstrated its real-world potential. Leslie Melville notes that returns in renewable projects remain “pretty fair” despite the

investor pile-in. "It's fashion in that people want to be doing these projects but there's also good returns."

Moreover, like the initial dot.com boom and bust around the turn of the millennium, the previous fall-out from the 2000s renewables boom that stung investors proved not so much hubris as premature. That round of investment helped secure the breakthroughs in solar and wind power that have fuelled dramatic cost and productivity improvements in renewable power through the 2010s. At a more fundamental level, the scale of state, corporate and investor support for green power during the 2020s will dwarf anything seen during previous decades. In this, consumers and the planet are set to be the ultimate winners. Conversely, investors, contractors and suppliers will have to keep an increasingly close watch on their commitments and liabilities in a market that will have losers and white elephants to spare. Another industrial revolution, in other words.

For more information, please contact;



**RICHARD BOOTH**

Partner, London  
T +44 (0)20 7264 8385  
M +44 (0)7824 416194  
E richard.booth@hfw.com



**ALEX KYRIAKOULIS**

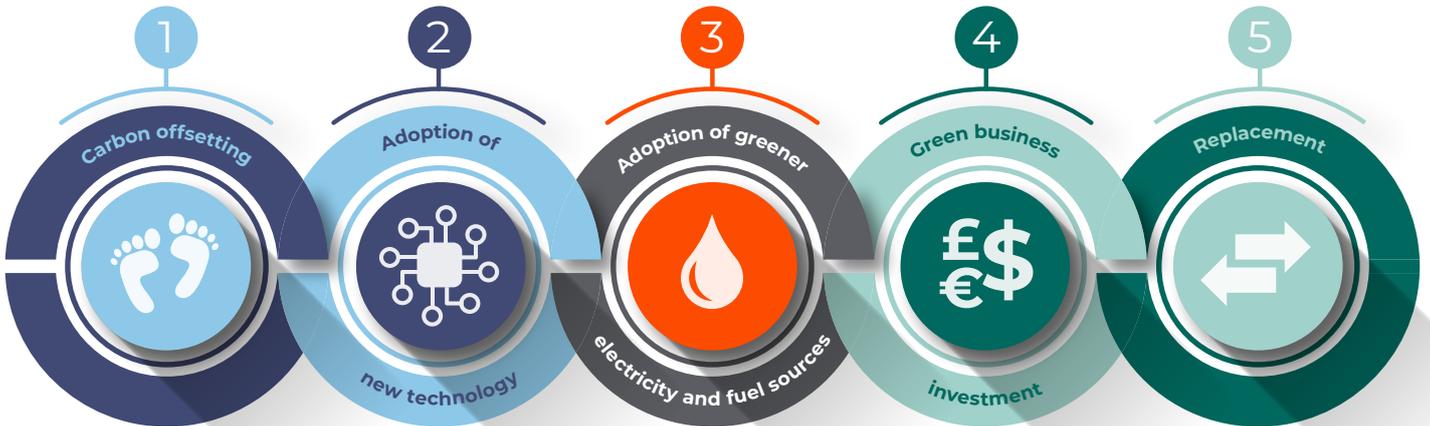
Partner, London  
T +44 (0)20 7264 8782  
M +44 (0)7823 532674  
E ayk@hfw.com



**JO GARLAND**

Partner and Energy  
Transition Lead, Perth  
T +61 (0) 8 9422 4719  
M +61 (0)428 598 615  
E jo.garland@hfw.com

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