

Q&A

Investing in the evolving sustainable energy market

Unsubsidised low-carbon energy generation is growing to serve a large market of corporate off-takers that are looking to decarbonise their operations. Here, 3i partner **Tim Short** explains the emerging opportunities for sustainably-minded businesses



As the UK accelerates its shift towards sustainable energy, unsubsidised low-carbon energy generation is opening new investment opportunities. Businesses committed to decarbonisation are driving demand, creating a dynamic market for renewable energy solutions. Tim Short discusses barriers to the wider take-up of unsubsidised low-carbon energy and shares why investment opportunities will continue to arise.

Q Which factors are critical to the UK achieving its energy transition goals?

A On a basic level there are two crucial factors - supply and demand. On the demand side you have energy users - households, businesses, industry, government etc that are trying to reduce their energy usage, find efficiencies and switch to renewable energy sources.

On the supply side you have generators of renewable energy. A lot of the UK's energy transition will involve electrification, which refers to the replacement of fossil fuels with renewable electricity to run vehicles or heat your home. But there are some areas, for example aviation or certain industrial applications, that aren't suited to electrification because they require high energy density or high temperatures. Here, we'll need niche alternative fuels, such as biofuels, to fill the gap.

Q What are the key elements to subsidy-free, low-carbon energy generation?

A Subsidy-free, low-carbon energy generation refers to the production of clean energy without relying on government subsidies or financial incentives. Cost competitiveness is crucial. A decade ago renewables such as wind and solar weren't as competitive compared to generating electricity from fossil fuels. Now they can be equally as competitive, if not more so.

A long-term commitment from the energy user to pay a fixed price is also required, because there is a significant upfront cost to develop renewable energy projects. A good example of this would be AstraZeneca, which recently signed a 15-year partnership with Future Biogas to establish the first unsubsidised industrial-scale supply of biomethane gas in the UK to help AstraZeneca achieve its decarbonisation goals.

Q Which of your investments contribute to the UK energy transition?

A Firstly we have Infinis which is a unique business because of its energy mix. Alongside conventional solar, it's the biggest player in generating electricity from landfill gas in the UK. Landfill gas is renewable, but Infinis is also doing an important environmental service by preventing methane from escaping into the atmosphere. Methane is 20 to 25 times more potent as a greenhouse gas than carbon dioxide.

Then we have Future Biogas, a business that converts a wide range of feedstocks into clean, renewable energy, through a process of anaerobic digestion which produces biogas. Biogas can either be used to generate green electricity, or upgraded into biomethane and injected into the UK's national gas network. Biomethane is a better alternative for some companies, because it can make use of their existing boiler infrastructure, without incurring the costs of removing it and building new energy facilities.

Q What are the barriers to wider take-up of unsubsidised, low-carbon energy?

A There's a real need for clarity around regulations and what companies can count towards their reported emissions. If you're a user of green electricity, you can count that against your emissions footprint. For biomethane,



Regulatory clarity on emissions is key to unlocking wider low-carbon energy adoption

the regulations are less developed. It's also not clear how the avoided CO2 emissions associated with the biomethane production would count towards the UK emissions trading. Once we have that clarity it will open up trading.

There also needs to be a better planning system in place as it can take a long time to develop projects. For example, Infinis is developing a lot of solar parks on its landfill sites but it can be difficult to get approval for these projects because of concerns over nature.

Q How is the evolving energy landscape affecting investment opportunities?

A The UK's electricity system has become much more diverse and there's a role for more locally embedded generation. A business like Infinis has 150 sites across the UK rather than one big site and these are mostly no bigger than 20 megawatts. Infinis can tailor what it's doing much more specifically to the needs of the customer. For investors, there is an opportunity to earn a premium return there because it's much less commoditised than would otherwise be the case.



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