



Funding future energy

THE INVESTMENT OUTLOOK 2022

For what comes next

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Introduction

A year of hope

In this year's report, we've provided a snapshot of current and future trends in equity and debt finance in the future energy sector, covering the UK, Scotland and Northern Ireland (NI). For a number of reasons, you might say we are entering a year of hope...

In April 2022, the Intergovernmental Panel on Climate Change (IPCC) published its third climate report, making clear the vital role that renewables play in achieving net zero. Soon afterwards, the UK government published its long-awaited Energy Security Strategy, providing much-needed clarity on the areas where it aims to focus, and those where it does not.

Meanwhile, businesses, communities and financial institutions are all looking for ways to achieve their ESG goals, making sustainability a hot area for investment.

And over the last year, there has been a noticeable increase in confidence and risk appetite amongst investors. JVs, for example, are entered at an earlier stage and continue for a longer term. The industry is also finding new and creative ways to make the most of sites and maximise revenue.

Debt will follow equity as ever, but there is a strong precedent now in technologies like battery storage, paving the way for a greater breadth and depth of funding. And as the amount of available capital outweighs the number of new projects,

technologies will start to compete on a more equal footing, meaning project modelling and developer pedigree will become increasingly important.

As trusted advisers to the green energy market, we are being asked to take on a more advisory role, supporting and training internal teams with their day-to-day planning and running of projects and managing risks and conflicts.

The future energy sector has always been known for its ability to adapt to change, be that new policy, regulation or technologies. We hope you find this report useful and look forward to bringing you further updates as things continue to evolve over the coming months.



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Equity

Current trends



1. Joint ventures (JVs)

Investors and developers are entering JVs at an earlier stage, including as early as the site-finding stage to build portfolios from scratch.

JVs are continuing for a longer period i.e. progressing through the construction phase and taking construction risk to benefit from operational returns.

JVs with landlords are increasingly common, usually by way of a profit share rather than partaking in a corporate partnership, as this is less cumbersome, could be tax beneficial for landlords and improves bankability.

We are also seeing more European funds entering the UK market on a JV basis to develop solar, or to buy assets such as solar or battery storage.



2. Battery storage

Investment has increased over the last 12–18 months, and will continue as energy storage – both short duration and nascent long duration schemes – plays an important role in managing grid capacity as renewable generation increases.



3. Onshore wind

Scotland and NI remain buoyant, while the UK government's Energy Security Strategy favoured partnerships with a "limited number of supportive communities", which will require close collaboration between developers and communities and project modelling that balances commercial interests and community benefits.



4. Portfolios

Some investors are looking at portfolios (e.g. multiple smaller rooftop solar developments) as a way to access a developer's wider pipeline.



5. Bioenergy/Energy from waste

Interest remains high, and some investors are happy to fund at an earlier stage, but the issue of securing a bankable feedstock agreement continues to affect investor appetite. Unlike other guaranteed sources of fuel, energy from waste sites rely on high quality feedstock contracts to be successful.



6. Grid share

Projects with spare grid capacity can potentially access additional revenue streams, either by adding additional technologies to the current project (e.g. through battery storage or electric vehicle charging) or by selling the spare capacity to neighbouring developers through a grid share arrangement. This can be applied to live projects or projects at ready-to-build stage.

Equity

Future trends



1. Multi-technology projects

Investment has been slow as the different technologies need to stand on their own two feet, but this will change as newer technologies mature.



2. Wind

The government's ambition to deliver of 50GW of offshore wind by 2030 – including 5GW of floating wind – could channel future investment into offshore wind projects. The scale and capital requirements mean JVs between two or even three specialist developers are common, with the project then being funded by a consortium of investors (which could be a mix of debt and equity) with investors entering the pipeline at different stages depending on risk appetite.

With the scope for onshore wind in England being “a limited number of supportive communities”, this won't open up investment in the same way a wholesale change in planning law might have done. And as this could have been a double-edged sword drawing investment away from other areas, the need to deploy capital could lead to further investment in newer technologies.



3. Asset life extension

Technologies that help make the most of an asset e.g. bifacial solar panels or more efficient wind turbine blades could attract significant investment as portfolios of re-powered assets hit the secondary market. Planning permission will need to be considered.

40-year leases are now standard, and projects with shorter leases (say 25 years) are looking to extend by 15 years to maximise returns.



4. Electric vehicles (EVs)

With electric cars predicted to out-sell diesel in 2022, the usage/demand equation associated with EV charging is closer to achieving parity. Investment in EV charging infrastructure (EVCI) and charging concepts like the GRIDSERVE electric highway will increase over the next 12–18 months, rather than only being the purview of specialist investors.



5. Newer technologies

Investor interest continues to be cyclical; investment moves from technology to technology as the market becomes saturated, and as that happens the JV opportunity decreases and the prime projects decrease. This, alongside the watering down of support for onshore wind in the UK's Energy Security Strategy, means investment in battery storage and newer technologies (e.g. carbon capture and storage (CC&S), green hydrogen and long duration storage) could increase if the projects hit the market at the right time.



6. JV exits

As JV arrangements come to an end over the next 3–7 years, portfolios of projects at different stages will come to the market, creating buoyant secondary and tertiary markets for established technologies.

Debt

Current trends



1. Over-capitalisation

A high number of deals, significant capital and low interest rates means cost of capital is low. Newer funds are chasing nascent technologies where they don't need to compete with traditional banks on price and can offer a flexible credit process and accommodate deal specifics.

Low returns also mean some developers and investors are using their own capital at an individual project level and only bringing in debt at a later stage or for portfolios.



2. Newer technologies

Traditional technologies such as solar, wind and to some extent battery storage are always first preference, but newer technologies such as EVCI are gaining interest (although utilisation risk remains a challenge).

Banks seem comfortable with solar despite volatile electricity prices.



3. Subsidy-free

There are many debt-funded subsidy-free projects on the market, particularly solar in England and wind in Scotland and NI. Some have a blue chip PPA with a floor price – a slightly different proposition that needs to take account of the current standing of the counterparty.

Debt service cover ratios of 1:1.15 or 1:1.2 are normal. You may see 1:1.5, particularly if there is a PPA with an investment grade counterparty floor price.

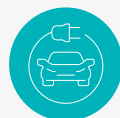
Merchant risk is fairly safe given lower construction costs and greater efficiencies. In these cases, debt sizing and affordability criteria should be more conservative. However, long-term structures are being developed on a build-and-hold basis.



4. Battery storage

This continues to grow, thanks to its long-term potential e.g. in grid balancing and arbitraging prices.

Future trends



1. EVCI

There is growing appetite for EVCI, but revenue streams and bankability remain uncertain. The market will respond positively to any clarity over consumer demand, charging models and so on.

Some banks are looking at asset-based finance, which makes sense but will still be challenging e.g. due to uncertainties over the second-hand market (value, removal etc.).



2. Asset life extension

This is a significant opportunity, especially as more FIT and ROC portfolios come back onto the market, and given the opportunity to improve energy efficiency. A number of solar and wind developers with large portfolios are already speaking to landowners about lease extensions.



3. Higher interest rates

Rising interest rates could impact financing and refinancing. Developers will look to put projects into debt while interest rates are still relatively low, and collate individual projects into portfolios to access better terms from lenders.



4. Newer technologies

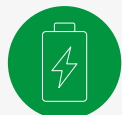
Longer-term funding will move into newer technologies and sectors e.g. buying fields, growing trees, selling carbon credits, CC&S.

There will be more funding in tidal projects, largescale offshore wind farms and different types of battery storage (e.g. gravity, flywheel, compressed air and pumped).

The geothermal plant at the Eden Project could spark interest in this technology, if it proves viable.

Scotland

Current trends



1. Battery storage

Growth continues and the outlook remains strong, with many developers looking for new sites and investors waiting in the wings.



2. Onshore wind

Growth of standalone and co-located projects (with battery storage, EVCI and solar) continues.



3. Solar

While still less prevalent than in England & Wales, some developers are looking to maximise land use and grid capacity by adding solar.



4. Offshore wind

Primary and secondary markets remain significant investment areas.



5. Multi-technology

As the battle for land intensifies, developers are looking at sites they might previously have dismissed and using multi-technology to make the most of them, which can also help secure planning permission.

Future trends



1. Pumped storage

This is supported by the UK and Scottish governments, and large-scale utilities are also looking at it. Funding is relatively easy to come by due to its long lifespan, and while it requires a large area of land, potential sites are coming to the market. It will only take two or three more sites for this to be a large part of the energy mix.



2. Green hydrogen

Early deals have raised interest in this nascent technology amongst developers and investors, particularly where green hydrogen is used to power heavy duty commercial fleet that cannot be electrified. There is still some push and pull around what hydrogen is most suitable for.



3. Asset life extension

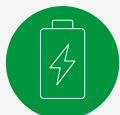
Investors are always looking for the option to extend a lease and repower, to maximise the value of an asset. Investment will grow as more turbines come up for repowering and more projects arrive on the secondary market. Repowering may also involve additional technologies (where import and export grid capacity and location allow, and projected ROI is strong). There will be some planning hurdles, especially if not replacing like for like, but the prevailing view is this shouldn't be too onerous.



Growth of standalone and co-located projects (with battery storage, EVCI and solar) continues.

Northern Ireland

Current trends



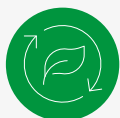
1. Battery storage

Following our successful judicial review against the Department for Infrastructure on behalf of Energia Renewables Company and ABO Wind NI Ltd in 2021, the categorisation of battery storage developments in NI within the Planning Act (NI) 2011 has been clarified, reducing uncertainty in the application process and facilitating the continued growth in new 30-50MW projects.



2. Debt

Most debt is refinancing wind, and some solar, but more will flow into new projects and newer technologies as more companies work on achieving their ESG goals.



3. Bioenergy

There are many small projects using energy crops, waste food or agricultural waste products. Larger-scale projects, with a few notable exceptions, are generally still at the planning stage.



...the position for battery storage is clear, opening up continued growth in new 30-50MW projects.

Future trends



1. Co-location

After our successful judicial review opened the door for new battery storage (see current trends), we are predicting more co-location on new sites and as wind farms look to repower e.g. adding battery storage or EVCI.



2. Subsidy-free wind

While the market is calling for a subsidy framework to help unlock new developments, there is some movement towards a land grab with a view to selling at ready-to-build stage.



3. Off-shore wind

New entrants to the NI market are actively considering development proposals off the coast of NI. Further growth will require identification of onshore grid connection points and Crown Estate bidding rounds.



4. EVCI

NI recognises it needs to get into the EV race with new infrastructure, and we expect this to gather pace in 2022, but making real headway will need focus on significant grid upgrades and associated investment that must be driven by government policy, which is slow to emerge.

About TLT

We're shaping the future of energy and sustainability.

We provide pathfinder legal solutions for green energy and infrastructure.

We are a leading adviser to the global future energy sector and have built an unrivalled track record delivering what our clients need so they can lead the journey to net zero and a more sustainable future.

TLT is one of only a few UK law firms with the specialist expertise to advise on all aspects of green energy projects across the range of technologies and project lifecycle. We regularly advise on 'first of a kind' projects including subsidy-free, multi-technology, energy storage, green hydrogen, EV charging infrastructure and cleantech.

We're regularly instructed on projects that require financing, corporate transactional, real estate, planning, grid, offtake and construction expertise. In addition, we're recognised for our expertise in specialist areas such as IP, technology, commercial dispute resolution, European grant funding, commercial partnerships and corporate and private wire arrangements.



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