

Power Pulse

January 2025

A monthly snapshot of the ever-changing power outlook in the UK



“We’ve passed a number of significant milestones in recent months”

Peter Sibley,
Director

Following a ‘regulatory relay’ at the end of 2024 (the revised [National Planning Policy Framework](#) (NPPF), the National Energy System Operator’s (NESO) [Clean Power 2030 action plan](#), and the [English Devolution White Paper](#)), there’s an unprecedented air of promise as the government reveals its plans to achieve net zero energy by 2030.

As you’ll see in this month’s report, we’ve passed a number of significant milestones in recent months—some of which may have flown under the radar, from geothermal drilling to small modular reactors (SMRs) and new approaches under the grid queue management reforms. These should help moderate the perceived risks and encourage further investment. A data-driven, technical approach is essential to help developers determine their power needs and assess the solutions.

“We must ask: does the shift feel ‘monumental’?”

Spotlight of the month

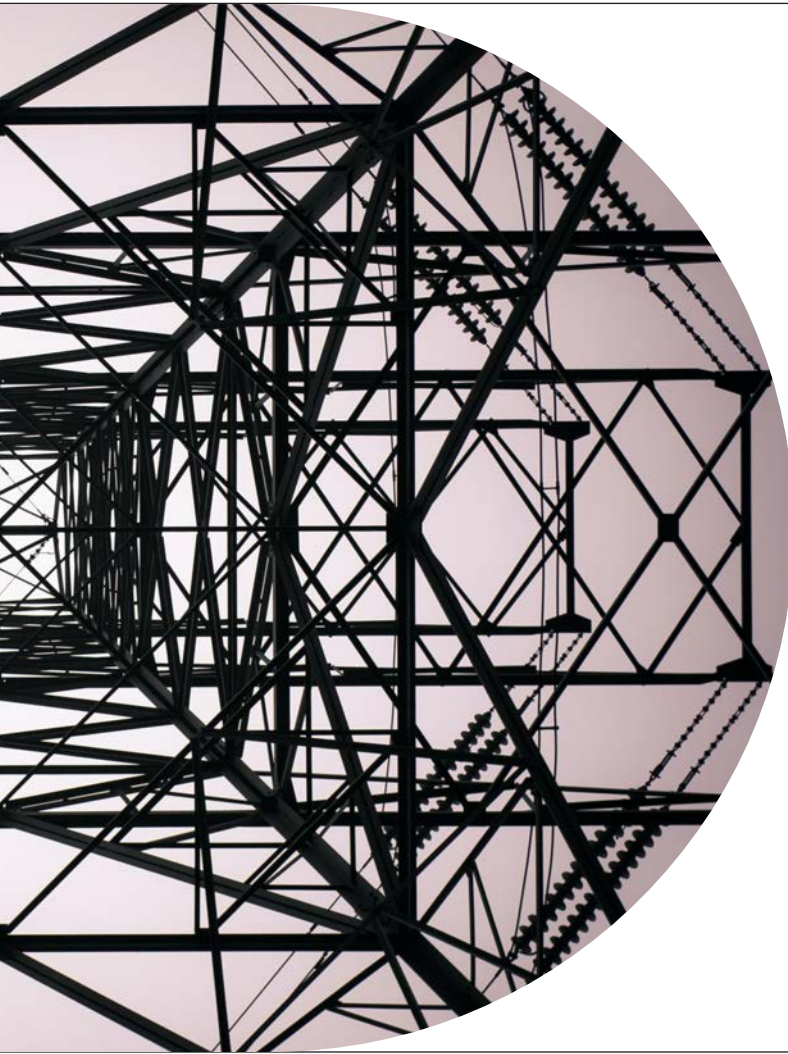
NESO Clean Power 2030

In December, NESO’s Clean Power 2030 report advised the government on the ‘once in a generation’ shift in approach and pace needed to achieve its clean energy goal. CEO Fintan Slye spoke of ‘monumental shifts’ that can be achieved by doing things differently.

This is a useful yardstick of whether we’re challenging norms and facilitating change quickly enough and how much more is needed. We must ask: does the shift in the critical enablers of market arrangements, investment, planning, connections reform, supply chains, workforce, digitisation, and innovation feel ‘monumental’?

We need rapid, meaningful collaboration and information sharing between the public and private sectors, industry bodies, and central government. In construction, we need to innovate beyond historic norms, embrace new ideas, and consider if we’re evolving quickly enough to deliver a low carbon grid and what more is needed.





“Mod Apps aren’t new, but applicants need to understand the technical requirements and implications”

Grid

There are now a number of test cases underway for a Modified Application (Mod App) for a connection under the ongoing queue management reforms, whereby applicants are hoping to purchase an existing connection offer from a speculative or stalled project, and secure a favourable connection date. Following the ‘gold rush’ of battery storage, these are often the targets and sites are considerable, including a 400MW connection in north-west London. Mod Apps aren’t new, but applicants need to understand the technical requirements and implications.

Eleanor Wratten, Associate

COULD NOVATION HELP YOU CONNECT? →

Geothermal

The UK’s first geothermal power plant, at United Downs, has entered its final construction stage before going live in early 2025. This should spark further interest in geothermal, especially given its discovery of a three-stream revenue of lithium, heat, and power and that timelines will be shorter in the future.

The government will soon publish its study on the levelised cost of geothermal heat and electricity, which should show a positive trend and encourage investment. It is exploring geothermal for hospitals again. If this leads to an attractive enough bid, a drilling firm would have incentive enough to invest in the best technology from around the world that would speed up borehole drilling and reduce upfront costs.

Mark Griffiths, Associate

TAKE A VIRTUAL TOUR OF UNITED DOWNS →


Solar

Grid constraints remain a sizeable risk, but solutions are available. One client came to us having installed £2 million worth of roof-mounted panels, only to be told they couldn’t connect. We took an engineering-led approach to the grid application, making sure the design and size were sympathetic to the DNO’s constraints. For investors and developers, competitive advantage and return on investment no longer come from the size of the installation; it’s about being led by data, technical understanding, and science—and using as much of the power as possible on the site.

Tom Shilton, Director

WHAT IS AN ENGINEERING-LED APPROACH? →





“New, higher, 100MW NSIP threshold for onshore wind”

Wind

The revised NPPF, published in December, raises the Nationally Significant Infrastructure Project (NSIP) threshold for onshore wind to 100MW. This was artificially shrinking projects, so we should see larger schemes coming forward, although a data-led approach is essential to prepare for negotiations and community engagement.

The revised NPPF also requires local planning authorities to give ‘significant weight’ to the benefits of repowering, i.e., using existing sites. The industry has been waiting for this, but market developments—including grid capacity constraints—mean asset owners need to rethink their sites to get the best out of them and consider colocation with battery storage.

Joseph Padbury, Associate Director

EXPLORE THE REVISED NPPF →

Battery storage

We are seeing a noticeable shift towards distributed storage for the purposes of grid balancing at the moment, particularly in vehicle-to-grid, housing and logistics, and distribution. This is integral to the UK’s energy plans but again requires a data-led approach to verify its suitability and the right technical specifications. Incentives for long-duration storage technologies should drive this trend further, with Ofgem due to launch a new scheme this year.

Ben Bowler, Technical Director

LISTEN TO BEN BOWLER, TECHNICAL DIRECTOR, ON THE SCOPE PODCAST →

“The myth that ‘bigger is better’ in EVCI continues to permeate”

eMobility

The myth that ‘bigger is better’ when it comes to electric vehicle charging infrastructure (EVCI) continues to permeate. It leads to unnecessary costs and delays for fleet operators and developers.

Our recent analysis shows that in many cases, longer-duration fleet charging for logistics and distribution facilities is sufficient, reducing power requirements and associated costs. Furthermore, by considering the types of operations at a given location, it’s possible to design an approach that mixes on-plot and off-plot charging, reducing the burden on individual units and removing duplication of need at the point of connection.

Ben Bowler, Technical Director

HOW DO YOU ‘RIGHT SIZE’ EVCI? →

Hydrogen

If you still think the UK’s gas networks won’t be ready for hydrogen, take note of SGN’s progress in Scotland. It has replaced the vast majority of its low-pressure network for this purpose, aiming to replace all cast iron by 2032.

In December, it **completed construction of the world’s first domestic hydrogen gas network**, as part of its H100 Fife project to heat 300 homes (phase one). Customers have the option to connect, which should encourage local support. This is one of several projects and studies we’re aware of driving hydrogen networks forward.

Tom Shilton, Director

DISCOVER H100 FIFE →

Nuclear

Not only has the UK seen a site location for one of its **first SMRs announced by Last Energy in South Wales**, we’ve supported them during the early stages of their nuclear site licensing journey with the UK’s nuclear safety regulator. This has the potential to pave the way for an optimised regulatory approval process for SMRs, enabling Last Energy to target deployment of its first operational reactor by 2027.

This is an exciting leap forward, especially for industrial developers and data centres looking for reliable, clean power to help speed up delivery. The government’s messaging and appearance at industry events, combined with **EDF’s news** that it’s extending the life of four plants, give further cause for celebration.

Peter Sibley, Director

WHAT IS LAST ENERGY BUILDING? →



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