

# Power Pulse

February 2025

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



*Now more than ever,  
data can reveal  
hidden solutions*

**Eleanor Wratten, Associate**

We started Power Pulse to make it easier for the industry to keep track of changes in energy provision from month to month. Recent weeks have proven just why this is so badly needed: things have not stood still.

In a major announcement that has far-reaching consequences (see Spotlight of the month), the National Energy System Operator (NESO) revealed how it plans to modernise the connections process to meet society's insatiable demand for electricity. At the same time, government and industry continued to embrace research and reform to make it easier to secure clean power.

Now more than ever, having the right information and data on your side can help reveal hidden solutions and support more informed decision-making to achieve decarbonisation and create thriving communities.



## Spotlight of the month

The far-reaching impact of NESO's pause in transmission connection applications

On 15 January, NESO announced it was pausing all new connection applications to the transmission network from 29 January until 31 May latest (large demand-only projects have until 21 March) to give it time to implement its [Connections Reform](#) project.

As well as large industrial and renewables projects and mod apps, which would apply directly to the transmission network, this affects any development that would trigger an application from the Distribution Network Operator (DNO) (i.e., the distribution networks) to NESO for extra capacity—likely hundreds of smaller-medium scale commercial, industrial, and residential projects, due to constraints on DNO substations. In London, as a key example, any load over 500kVA triggers this.

*“Get ready to demonstrate how you meet NESO's readiness milestones”*

So, potentially a three-month pause. What can you do now?

If you need to apply for power, get ready to demonstrate how you meet NESO's readiness milestones (including land rights and planning) to increase your chance of securing a favourable connection date, and factor in the time it takes an electrical engineer to prepare the technical submission for the application.





## Grid

The pause in transmission connection applications has had a significant impact on whole organisations, with some rushing through submissions while others abandoned their plans. The Connections Reform project is, however, critical to the long-term functioning of the UK electricity market and Clean Power 2030. We await further announcements about this and what process applicants will be coming back to.

During this pause, it's still worth seeking out opportunities to purchase a connection offer from a project in the queue, provided you're willing to wait to hear if it's feasible.

**Eleanor Wratten, Associate**

**COULD A MOD APP HELP YOU CONNECT?** →

*“The cost of drilling fell from \$1000/ft to \$400/ft—a \$10m saving . . .”*

## Geothermal

A recent report highlighted how the cost of next-generation geothermal has fallen dramatically as projects grow, technologies mature, and the supply chain strengthens. Between 2017 and 2022, the cost of drilling at the U.S. Department of Energy's FORGE site in Utah fell from US\$1,000 per foot in its first project to US\$400 per foot in its second—a \$10 million saving over a typical 5 kilometre borehole—making a more attractive proposition for investors and developers.

The latest modelling estimates suggest that, on average, projects using enhanced geothermal systems at optimal depths would cost US\$64 per MWh—competitive with solar plus battery storage.

**Mark Griffiths, Associate**

**EXPLORE THE UTAH FORGE SITE** →

## Solar

NESO has proposed increasing the lower threshold for when a distribution project in England and Wales requires a Transmission Impact Assessment (TIA) from 1MW to 5MW. This would likely unlock more large-scale rooftop solar, as many projects are currently sized just under 1MW to avoid the requirement and potential delays (NESO acknowledges that after a TIA, conditional connection dates can be revised by as much as 10 years). The proposed modification could be a significant win for decarbonisation. Implementation is forecast for May 2025.

**Joseph Padbury, Associate Director**

**READ NESO'S PROPOSAL** →





*“More local authorities are developing their own renewable energy assets”*

## Wind

More local authorities are deciding the most cost-effective way to meet their net zero obligations is to develop their own renewable energy assets. To help manage the risks, many don't realise they already have a wind asset, for example, in their portfolio, so it's important to look at the estate as a whole. The next step is a comprehensive data-driven analysis of fundamental factors such as connection capacity, environmental constraints, and planning, to help build the business case and determine the best opportunities and development models.

**Tom Shilton, Director**

**DECARBONISING RHONDDA CYNON TAF COUNCIL** →

*“The planning inspector decided the site is grey belt”*

## Battery storage

In one of the first decisions since the government introduced the 'grey belt' into national planning policy, our colleagues won planning permission on appeal for a 49.35 MW battery storage scheme in Walsall. The planning inspector decided the site is grey belt and that while the land was not previously developed, it did not strongly contribute to checking the unrestricted sprawl of large built-up areas or preventing neighbouring towns from merging.

The inspector added that even if the site were not grey belt, 'very special circumstances', including the contribution to mitigating climate change, achieving net zero, and providing energy security, would have justified the facility's very limited impact on the green belt.

**Ben Bowler, Technical Director**

**READ THE APPEAL DECISION** →



## eMobility

In January, BT announced it was ending a pilot aimed at extending the usefulness of near end-of-life green street cabinets as EV charge points, switching its focus to Wi-Fi connectivity. The scheme looked like it might disrupt the domestic charging market but leaves solutions open for others to provide.

What will those solutions look like? Local authorities are increasingly turning to data-driven modelling to make sense of the conflicting needs of different EV users. The results can help determine the optimal charging mix, assess market failures, and strategically target investments.

**Ben Bowler**, Technical Director

WHAT DOES THE 'RIGHT' PROVISION OF EV CHARGING INFRASTRUCTURE LOOK LIKE? →

## Hydrogen

Wales & West Utilities (WWU), in partnership with SGN, has commissioned a feasibility study from our team and engineering consultancy Apollo on using natural gas, a hydrogen blend, or 100 percent hydrogen to power data centres. By using a homegrown and renewable energy source like low-carbon hydrogen, data centres could meet their energy needs while unlocking sites faster, managing energy-related costs, and reducing emissions. Matt Hindle from WWU commented: 'This green gas could also stimulate the hydrogen economy in the surrounding areas.'

**Tom Shilton**, Director

FIND OUT MORE ABOUT THE STUDY →



## Nuclear

The UK government said it intends to immobilise and dispose of the country's valuable stockpile of civil plutonium instead of reusing it for current and future nuclear projects, following a 'technical, deliverability and economic analysis'. While this won't impact planned developments, it raises questions about how the front-end fuel cycle will be maintained long-term, especially to support the widespread deployment of small modular reactors. In the coming years, further evidence will no doubt emerge to inform its final decision.

In the meantime, its announcement of £410 million investment in UK fusion as part of its 'Plan for Change' reaffirms the UK's position at the forefront of the fusion industry and is an exciting step towards unlocking its potential.

**Peter Sibley**, Director

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