

## Powering forward

### A partnership for Grid



Three strategic barriers stand in the way of Wales securing a clean energy future: our grid network, planning & consenting system, and port and supply chain readiness. Each has its unique challenges but impact one another and must be tackled in unison.

This briefing highlights the imperative for Welsh Government to establish a delivery partnership with renewable energy stakeholders to **secure a strategic approach to new grid infrastructure**. It emphasises the urgent need for grid upgrades, particularly in Mid Wales, to meet climate targets and drive economic growth. Key considerations include the debate between underground and overhead transmission cables, as well as the importance of community engagement and evidence-based decision-making. It concludes with actionable steps for policymakers to support grid upgrades.

Upgrading grid capacity and infrastructure is vital and necessary for our nation's energy security and economic growth. The grid transmission network is like a motorway, carrying electricity at high voltage across the country. There are also strategic distribution projects, like the more localised main roads, that are being developed to work alongside transmission as part of an optimal solution. Collectively, these can bring clean energy to our communities, unlock the economic and social advantages it brings, and guarantee Wales stays on track to achieve its climate targets. Wales needs a strategic joined up solution for grid upgrades in time to meet the Welsh Government's net zero targets. For the whole country to reap the benefits, we must build this infrastructure.

### By 2035

- The Welsh Government target is for 100% of our electricity needs to come from renewables. The amount of wind power connecting to our grid is projected to increase by up to **seven times** the current amount.
- The UK is forecast to need **£58bn in grid investment** to power up to the scale of renewables demanded.
- National Grid identifies **400,000** roles will need to be filled across the UK by 2050 to meet our net zero targets. For grid infrastructure to be rolled out at the required pace, a significant increase in supply chain skills is required across Wales.
- 4.5GW of floating offshore wind in the Celtic Sea is set to add **£1.4bn to the Welsh economy**.

Plans for a further 12GW in the Celtic Sea by The Crown Estate underline the urgent need for grid expansion. As renewable energy developers look to invest in Wales, grid infrastructure must be upgraded in parallel to support project delivery. Without this, Wales risks appearing less attractive and losing economic benefits to other parts of the UK.

## A grid solution to unlock Mid Wales

While North and South Wales have high voltage transmission lines in need of upgrade, Mid Wales lacks any significant grid infrastructure altogether. This is preventing the opportunity for energy intensive businesses and homes dependent on oil and gas to switch to cheaper, clean energy. Tackling this issue is crucial for our rural communities and wider Welsh economy. The need for strategic and accelerated development of our grid cannot be understated.



## Undergrounding vs overgrounding

Currently, the Welsh Government position is for transmission cables to be placed underground wherever possible. By contrast, the UK Government's stance is that cables should only go underground in exceptional circumstances.

The UK Government's Electricity Network Commissioner's report underscores this position. It reveals that burying cables can cost between five and ten times more than overhead installation and is more environmentally damaging. This added cost inevitably results in significantly higher energy bills for households and businesses.

Moreover, the UK Government's Transmission Acceleration Action Plan outlines how communities should reap benefits from transmission infrastructure, a principle that must be upheld in Wales through collaboration with the Welsh Government.

In July 2023, the Welsh Government released a pioneering report – Future Energy Grids for Wales. A global first, this advocated for a comprehensive approach to gas and electricity networks, recommending that the Welsh Government collaborate with network operators to educate communities about the potential benefits and impacts of network connections, further emphasising the significance of community engagement and partnership working in energy infrastructure planning.

## How can you help?

1. Show your support by endorsing an independent task and finish group with a Welsh Government Ministerial lead made up of government officials, grid stakeholders and industry representatives. Working together, we can provide the strong evidence base needed to guide grid upgrades in Wales.
2. Urge the Welsh Government Cabinet Secretary for Energy to use this evidence base to identify the best course of action for realising a strategic approach to new grid infrastructure.
3. Arm yourself with the necessary knowledge to serve your constituents on this issue. Read our handy FAQs and case studies

