Delivering for 2035:

Upgrading the grid for a secure, clean and affordable energy future

Summary

Overview

Decarbonising the power system by 2035 requires a **fundamental step-change** in the scale and pace of delivering new electricity network infrastructure.

Network investment is critical to connect the significant volumes of **new low carbon power generation required over the next decade** and beyond and to support the expected 50% increase in electricity demand.

This will **support energy security** by reducing reliance on imported gas and strengthening the resilience of the UK electricity system. It will also **unlock economic opportunities**, with investment in Great Britain's electricity networks set to add an average of £18.4bn to GDP each year between 2024 and 2035.

Decisive action is needed now from government, industry and the regulator to make this happen. This briefing sets out **five priority areas** where action is required to ensure that the networks sector can help make a decarbonised power system a reality.

There is no time to lose. The UK is in an **international race for clean investment** and must maintain its competitive advantage in designing and implementing policy and regulatory frameworks that attract and galvanise private sector investment.

2035 challenges and opportunities

Delivering a zero carbon power system will require a fundamental upgrade of our electricity grid

- The UK has already made extraordinary progress in the shift to clean power. But we need to move faster, and push further, if we are to realise our goal of having a resilient, secure and affordable zero carbon power system.
- Electricity networks need upgrading at a pace and scale not seen for generations. This is necessary if we are to decarbonise the power system by 2035.
- Grid upgrades are also needed to support the growing demand for electricity, expected to rise by 50% by 2035, as more people shift towards electric vehicles and electric heating systems[1].

The right approach will unlock huge economic, social and environmental benefits

- Connecting home-grown clean energy sources will reduce our reliance on energy imports, help insulate households and businesses from future price shocks and improve our energy security.
- Investment in electricity networks could help up to 12.5m households move away from fossil fuel heating by 2035, saving them money and improving air quality[2].
- It could also contribute an average of £18.4bn to GDP and support over 220,000 jobs each year between 2024 and 2035[3].

To achieve this vision, we need a step-change in delivery

- Transformation at this scale and pace will require everyone – industry, government and the regulator – to think and act differently.
- Planning and regulatory structures as well as skills and supply chain capacity all present challenges to delivering at the pace and scale required.
- With the US and EU driving action with their respective clean energy packages, maintaining the UK's competitive advantage and achieving the 2035 target will require a transformative change in approach.

[1] Climate Change Committee's Balanced Pathway for the Sixth Carbon Budget.
[2] National Grid analysis.
[3] Oxford Economics, GB Networks Investment Impact Analysis, May 2023.

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There are five priority areas where action is needed to transform the electricity networks:

1

Reform the planning system, centered around a strategic clean energy vision

- As an immediate step, **finalise the National Policy Statements by the summer**, ensuring they provide greater clarity and authority on the need, pace and urgency of energy related Nationally Significant Infrastructure Projects (NSIPs).
- **Streamline the current consenting process for major energy projects**, including through shortened decision timescales and alignment with the regulatory regime. This should include increased resourcing and capability for planning bodies and statutory consultees.
- **Establish a 'Strategic Spatial Energy Plan' by 2025** that sets out what needs to be built, where, and when. This should provide an authoritative evidence base for the key clean energy projects that are needed to deliver our 2035 targets and beyond, and be endorsed in national and local planning policy.

2

Ensure the regulatory and governance framework is set up for delivery

- Review the current suite of **regulators' objectives and duties** and clarify roles and responsibilities across the institutions accountable for the energy transition. Strengthening Ofgem's statutory duties to explicitly support the delivery of net zero and resilience would help ensure that it gives full consideration to the need to serve both current and future consumers.
- Fully **embed anticipatory investment and resilience into the regulatory framework**, ensuring it attracts the private capital to deliver the scale of network investment required. A more agile process that enables Ofgem to approve investment on a rolling basis will help accelerate new network capacity.
- Maintain pace in introducing a **competitive market for major transmission network capacity**, including the legislation for network competition in the Energy Bill.

3

Transform how clean energy connects to the grid, accelerating net zero projects

- Shift from a 'first come, first served' to **'connect or move' connections process** with tighter thresholds for those applying for connections, and moving projects that cannot connect out of the pipeline so as not to block or delay others.
- **Develop strategic 'capacity hubs'**, enabling a more coordinated and innovative approach to connections with capacity needs identified via a spatial plan.
- Create a **fast-track connection route for critical net zero projects**, prioritising those areas where the economic value could be greatest.

4

Put communities and consumers at the forefront of the transition

- Deliver a consistent **community benefits framework** that ensures local people secure real value for hosting critical net zero infrastructure. The consultation on community benefit packages is a welcome step.
- **Progress the development of new Regional System Planners** to unlock local net zero infrastructure, ensuring they are well-resourced and locally-based and able to develop regional plans across energy vectors.
- **Drive forward demand flexibility** through retail market reform, while **ensuring vulnerable households are protected** through the development of a social tariff.

5

Develop supply chain capacity and a skills pipeline across the country

- Enable a shift towards a more **collaborative and flexible approach to securing supply chain capacity** needed to deliver clean energy projects. An example is standardising procurement and technical standards across UK and European networks.
- Deliver a **targeted package of incentives to attract potential clean energy manufacturers and training providers** to locate and expand sites in the UK, building on the approach already taken with Special Economic Zones.
- Publish an **annual net zero energy workforce report** and ensure the educational and training system is equipped to inspire a pipeline of future talent, for example by embedding net zero across the school curriculum.