NATIONAL WEALTH FUND

Electricity Grid

Sector focus

November 2026



Unlocking the next phase of the UK electricity grid investment

Our clean energy ambition

The National Wealth Fund is a policy bank and one of the UK Government's principal investors. The Fund is capitalised with £43.2 billion to support delivery of its three strategic ambitions: unlock clean energy growth opportunities, accelerating place-based investment and strengthening our sovereign and strategic capability. In doing so, the Fund seeks to mobilise private capital alongside public investment while generating a return for taxpayers.

Our clean energy ambition is to support the transition to a secure, low-carbon energy system by investing in the infrastructure, technologies and supply chains needed to deliver clean power, strengthen energy security and enable decarbonisation across the economy. Recognising the scale of investment required, we seek to address financing barriers and crowd in private capital to help sectors develop and grow over time. Find out more about our strategy.

At a glance

The electricity grid is critical infrastructure, underpinning clean power, economic growth and energy security.

With around £70 billion of capital and operational expenditure investment expected to be required in electricity transmission alone from 2025 to 2031[1], the National Wealth Fund can help unlock private capital for critical grid infrastructure upgrades. Our financing supports the construction and upgrade of network assets rather than ongoing operating and maintenance expenditure.

This is needed to support electricity demand – forecast to more than double by 2050 – and the increase in geographically dispersed renewable generation needed to deliver clean power.

Our approach

We expect to provide debt or guarantees to address financial market capacity constraints and crowd in wider sources of capital into this essential infrastructure. We will also explore opportunities to support UK supply chains.

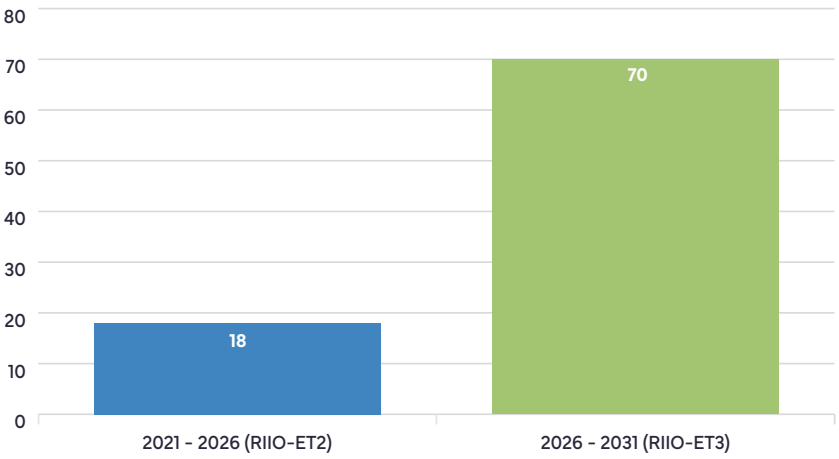
Key enablers

We will collaborate closely with Ofgem, the Department for Energy Security and Net Zero (DESNZ), National Energy System Operator (NESO) and Great British Grid, including on support for the supply chains to build generation and transmission infrastructure. We will also engage with the Department for the Economy in Northern Ireland on its grid investment objectives.

Market overview

The UK is entering its largest expansion of electricity infrastructure since the 1950s-60s. The increased level of investment required reflects a major step change from historic spending patterns[2], illustrating the scale of investment required and the opportunity for long-term investors. In transmission, investment could exceed £70 billion during 2026-2031, almost four times the £18 billion needed over the previous five year price control period[3].

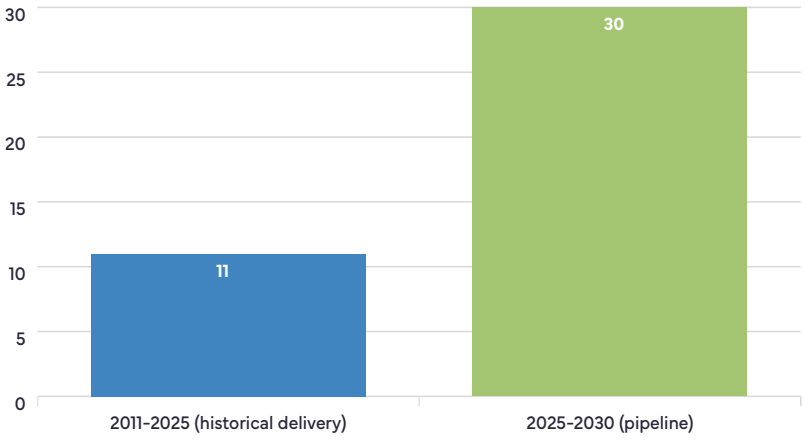
Transmission capex investment (~£bn)



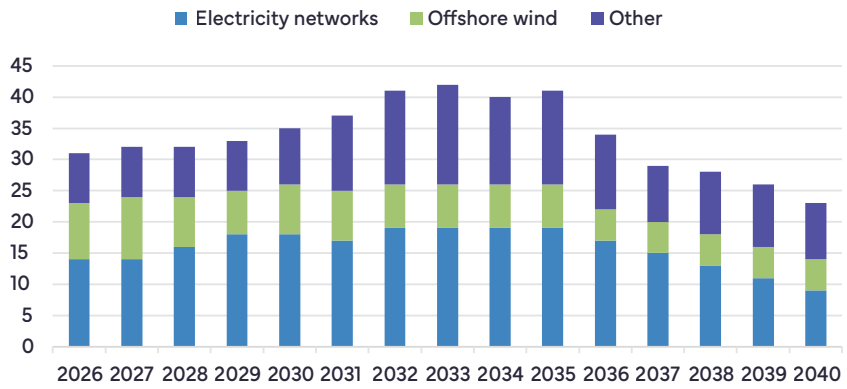
Transmission capex investment is expected to rise nearly fourfold.

Offshore electricity transmission (OFTO) investment (~£bn)

In offshore transmission around £30 billion of expenditure across 30 Offshore Transmission Owners (OFTO) assets could be tendered by 2030, compared to a total of around £11 billion since 2009.[4]



UK clean technology investment opportunity by technology (£bn)[5]



Electricity networks represent the largest component of projected energy system investment requirements to 2040, including transmission, distribution, offshore transmission and interconnection infrastructure.

The UK electricity grid

The grid in Great Britain is operated by regulated companies: three main Transmission Owners (covering Northern Scotland, Southern Scotland, England and Wales) and six main Distribution Network Owners across 14 regions. In Northern Ireland, the Single Electricity Market exists across the island of Ireland.

Government policy

The UK's electricity system is planned and operated by the National Energy System Operator (NESO). Ofgem regulates the market and the UK Government sets overall energy policy.

The UK Government ambition is to expand and accelerate electricity network infrastructure, reform grid connections, and introduce more strategic whole-system planning so that the network can support Clean Power and longer-term net zero objectives[6].

Key policies include:

The Clean Power 2030 Action Plan (published) is the government's central policy framework, and sets policy direction for electricity network development and its strategic role in the economy.

The 2022 Holistic Network Design (HND) (published), identified the offshore and onshore transmission infrastructure required to support Government's 2030 50GW offshore wind ambition.

The Strategic Spatial Energy Plan (SSEP) (upcoming, end of 2027) will have a broader remit. Commissioned by the UK, Scottish and Welsh Governments and developed by National Energy System Operator (NESO), will take a whole system view to future energy network planning, including electricity, hydrogen production, storage and related infrastructure.

The Centralised Strategic Network Plan (CSNP) (upcoming, 2028) translates those energy system requirements into network requirements, optimising action to drive efficiency and lower system cost.

More recently, Great British Grid was announced, as a new publicly owned body within Great British Energy that will help accelerate the delivery of the electricity network infrastructure Britain needs.

The National Wealth Fund's role

A catalytic role in an expanding market

The National Wealth Fund is well placed to support future grid expansion by mobilising private finance.

Through debt and guarantees, the National Wealth Fund can provide additional financing capacity at the scale or tenor required, while helping commercial lenders manage their exposure limits and participate alongside the Fund. This enables public capital to support larger volumes of private investment while maintaining a disciplined focus on positive financial return.

The National Wealth Fund will continue to invest directly and provide financial guarantee capacity alongside the private sector where its finance can expand market capacity, ensure timely delivery of strategically important infrastructure and support growth across the UK. Our immediate focus is the delivery of the transmission investment programme and the continuing offshore transmission pipeline, with distribution investment expected to become increasingly important as the next price-control period approaches.

Opportunity	Our role
Transmission	Provide long-term debt and guarantees that broaden financing capacity and mobilise private finance to support major grid upgrade projects.
Distribution	Provide financing to distribution network operators (DNOs) to support investment in the local networks needed for electrification and growth.
Offshore transmission	Support market capacity through debt and guarantee products for the Offshore Transmission Owners (OFTO) assets.
Interconnectors	Mobilise finance for electricity interconnection infrastructure.
Emerging investment models	Alongside Great British Grid, open to debt and guarantee products to support market capacity for competitively appointed transmission owners (CATOs) and independent DNOs regime.
Supply chains	Support investment in supply chain capability where aligned with policy.

Impact

Grid investment is a critical enabler in the transition to clean power and a catalyst for unlocking growth.

For households and businesses, timely grid investment means new generation and demand can connect more quickly, more power can move to where it is needed, and costly network bottlenecks can be reduced. It also supports investment in engineering, construction, manufacturing and skilled employment across the UK.

Network bottlenecks have a real impact on economic growth and consumer costs today. Only 16% of applicants received a connection offer at the date they wanted it in 2023, according to the National Audit Office. With grid investment, the planned grid upgrades and expansion identified through network planning will avoid curtailment costs of up to £7.8bn by 2030[7].

Investment in action: electricity grid projects delivering benefits

To date, the National Wealth Fund has deployed over £2bn of capital into the electricity grid sector, which is expected to support over 4,000 direct jobs, saving over 20MtCO2e, and crowding in around £2bn of private investment.

Projects include[8]:

Project	Benefits for the grid and the economy	Estimated jobs supported at peak (FTE)	Estimated emissions avoided MtCO2e
ScottishPower Energy Networks/ Iberdrola	Supports priority grid and transmission projects, helping renewable power flow from Scotland to centres of demand, reducing congestion, strengthening resilience and unlocking growth.	600	5.1
SSEN Transmission	Supports major projects in the north of Scotland, including Orkney's first connection to the transmission grid and Eastern Green Link 2, strengthening energy security and supporting jobs.	3,400	7
NeuConnect	Supports the first direct electricity link between Great Britain and Germany, under Ofgem's Window 2 cap and floor regulatory regime, strengthening energy security and enabling power to move between major markets.	250	8.2

Strengthening strategic supply chain capability

Grid expansion is underpinned by supply chains, including grid equipment (high-voltage cables, converters, transformers), civil works and construction, and skills (design, engineering, installation and maintenance services and other workforce capability). Demand for these supply chains is unprecedented. The International Energy Agency has outlined how transmission demand is growing faster than supply chains can currently respond, for example procurement lead times for transformers are now up to 4 years[9].

The UK has established strengths in engineering, civil works, installation and delivery services. Planned network investment also creates opportunities to expand domestic manufacturing where there are clear long-term demand signals and credible order volumes.

Key enablers for delivery

- Continued policy and regulatory development building on Ofgem's well established regulatory framework, can support network investment.
- Continued coordinated long-term planning can strengthen visibility of equipment demand and investment case for new capacity.
- Efficient early procurement can help secure equipment capacity.
- A focus on UK competitive advantage can capture economic value while supporting timely delivery.

Endnotes

1. NAO DESNZ 'Upgrading the Electricity Transmission Network', 2026

2. NAO DESNZ 'Upgrading the Electricity Transmission Network', 2026

3. Ofgem, 'RIIO-3 Final Determinations – Impact Assessment', 2025. RIIO: Revenue = Incentives + Innovation + Outputs.

4. 28 OFTO licences issued in 2011-2025; up to 30 additional assets could be tendered by 2030 Ofgem, LinkedIn Post, 2025 and Ofgem, Press Release, 2025. The periods overlap in 2025 because the prospective pipeline includes tender rounds launched in 2025, before the associated OFTO licences are awarded.

5. Standard Life Santander Baringa, 'Unlocking Investment to Finance the UK's Clean Energy Transition', 2026

6. DESNZ, 'Policy paper Clean Power 2030 Action Plan, 2024, DESNZ, 'Strategic Spatial Energy Plan: commission to NESO', 2024

7. NAO DESNZ 'Upgrading the Electricity Transmission Network', 2026

8. The National Wealth Fund public announcements and factsheets for ScottishPower Energy Networks / Iberdrola, SSEN Transmission, NeuConnect.

9. International Energy Agency, 'Building the Future Transmission Grid', 2025



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