

## Our business environment

Our business environment is being shaped by rising electricity demand, an evolving supply mix, and major reforms which are changing how energy systems are planned, built and operated. Against a backdrop of geopolitical uncertainty and rapid technological change, we are delivering the adaptive and reliable infrastructure needed to support economic growth for customers and communities.



### Energy supply and demand

Shifts in energy supply and demand are accelerating the need for larger and smarter electricity and gas networks. This is driven by low-carbon generation, storage, electric vehicles, electrification of heating and industry, and increasingly from data centres to power AI. This is creating new opportunities and reshaping where and how capacity is needed.

#### Impact on our industry

- New generation continues to shift towards low-carbon sources. In 2025, renewables generated a record 52.5% of UK electricity and accounted for nearly 88% of new generation capacity in the US. The UK's Contracts for Difference auction in early 2026 secured 8.4GW of future offshore wind capacity.
- Natural gas is expected to remain a key part of the energy mix in the UK and US, playing a critical role in managing renewable intermittency and peak demand, as well as home heating.
- Electricity demand continues to rise in the UK and US, driven by electrification of transport and heat, and more recently, by the rapid growth in data centres and advanced manufacturing. These trends are reshaping long-term network planning and connection requirements.
- Battery storage capacity and other flexible assets are reaching commercial scale, becoming increasingly important for system balancing and to avoid excess power going unused.

#### How we are responding

- National Grid is expanding and upgrading its networks to keep pace with rising demand and the shift to cleaner generation. In 2025/26, we connected 1.8GW of new capacity across our electricity networks.
- We are increasing the capacity of our electricity and gas networks where demand is growing fastest. In the UK, we are constructing a new substation at Uxbridge Moor which is expected to connect more than a dozen new data centres to the grid from 2029.
- We are enabling our customers to connect and operate flexible assets including solar, storage and other technologies. In New England, we are piloting new technology to help customer assets come online faster and adjust output at times of grid stress.



### Technology and innovation

Technology and innovation are unlocking new ways to plan, build, operate and maintain our networks. They are transforming the customer experience with smart meters, flexible services and better billing. AI is reshaping every aspect of our business, accelerating our ability to plan, respond and deliver across our electricity and gas networks.

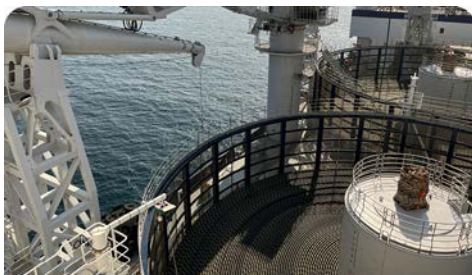
#### Impact on our industry

- AI is creating opportunities to improve operational efficiency across the value chain, through enhanced grid intelligence, predictive and autonomous maintenance, and customer service. Across our operating areas, AI adoption continues to accelerate, with increasing agentic and autonomous applications.
- Grid-enhancing technologies, such as smart sensors, are unlocking capacity on the existing network by allowing optimisation of how much electricity can be safely carried on power lines at any moment.
- Customer-facing digital platforms are enabling customers to manage their energy, lower bills and track real-time outages. Utility companies are responding with better apps and smart software.

#### How we are responding

- We are upgrading and operating our infrastructure with state-of-the-art technology including dynamic line rating, digital twins and drones. These technologies are transforming how we plan and operate the network, easing constraints and supporting faster connections.
- In the UK, we have installed dynamic line rating technology on more than 600 km of electricity transmission infrastructure, which has saved £21m in constraint costs over the last five years.
- We are leveraging AI technology across our businesses. Our collaborations with Emerald.AI and GridCARE are helping to unlock additional grid capacity and supporting our large load customers, including data centres, to connect faster. Our partnership with Rhizome helps us identify and prevent wildfire risks across our networks in the US and UK.

## Our business environment cont.



### Global uncertainty

Economic and political uncertainty continues to impact energy supply around the world, making it more important to focus on resilience and security.

#### Impact on our industry

- Global conflicts are increasing uncertainty across the energy landscape and countries are refocusing on domestic energy security.
- Oil and gas markets remain volatile, as the UK and Europe phase out Russian gas imports and supply from the Middle East becomes unpredictable.
- Trade disputes are increasingly unpredictable with new tariffs impacting global trade and supply chains and creating challenges for major energy infrastructure projects.
- Transmission and distribution systems are under pressure from physical and cyber security threats.

#### How we are responding

- We remain focused on delivering resilient and secure infrastructure – helping to reduce the risk of disruption for the communities we serve.
- We participate in key working groups including the Energy Networks Association in the UK and the Edison Electric Institute and American Gas Association in the US, to advocate for policies that deliver a smooth energy transition.
- We are building resilience in our supply chains. In the UK, our new supply chain partnership model is propelling a c.£8 billion programme of substation upgrades by providing exclusive long-term contracts to regional suppliers.
- We are supporting the Northeast Supply Enhancement (NESE) project to expand natural gas capacity in Downstate New York, strengthening energy reliability and supporting economic growth for homes and businesses.
- We build resilience against the increase in physical and cyber threats into our networks and operations.



### Affordability and reliability

Affordability and reliability are shaping customer and regulator expectations of energy networks. Households feel pressure from persistently higher bills, while business and industry navigate increasing costs which impact growth. Meanwhile, regulators are strengthening their focus on resilience and reliability of supply as electricity demand grows, extreme weather events intensify, and systems become more dependent on variable renewables.

#### Impact on our industry

- Customers are facing sustained pressure from higher energy costs and inflation across many consumer goods. Affordability remains at the forefront of public expectations and policy debates.
- Grid reliability faces a dual challenge of ageing infrastructure which requires accelerated replacement while simultaneously absorbing rapid growth in intermittent generation, large demand loads, and flexible assets. The scale of investment required to maintain and expand the network is increasing, and customers expect services that can withstand extreme weather and rising peak demand.

#### How we are responding

- Since 2023, NGV's subsea interconnectors have saved UK customers more than £1.65 billion by importing electricity from Europe, compared to generating the same power from gas in the UK.
- In Upstate New York, we are offering \$290 million in bill discounts and energy efficiency improvements for income-eligible electric customers. In New England, we provide eligible low-income customers up to 70% off their bills.
- Our UK transmission network had a reliability rate of 99.99999%. Since 2024, we have replaced or refurbished over 1,000 assets including transformers, switchgear and cables.
- On Long Island, New York, we provide reliable, affordable electricity and critical support to the tightening electric system. National Grid Generation (operated by NGV) owns and operates 3.8GW of power generation – about 65% of the island's total generating capacity.
- We prevented over 19 million minutes of customer outages in Massachusetts and 13.5 million minutes in Upstate New York by deploying fault location, isolation and service restoration technology on our networks.