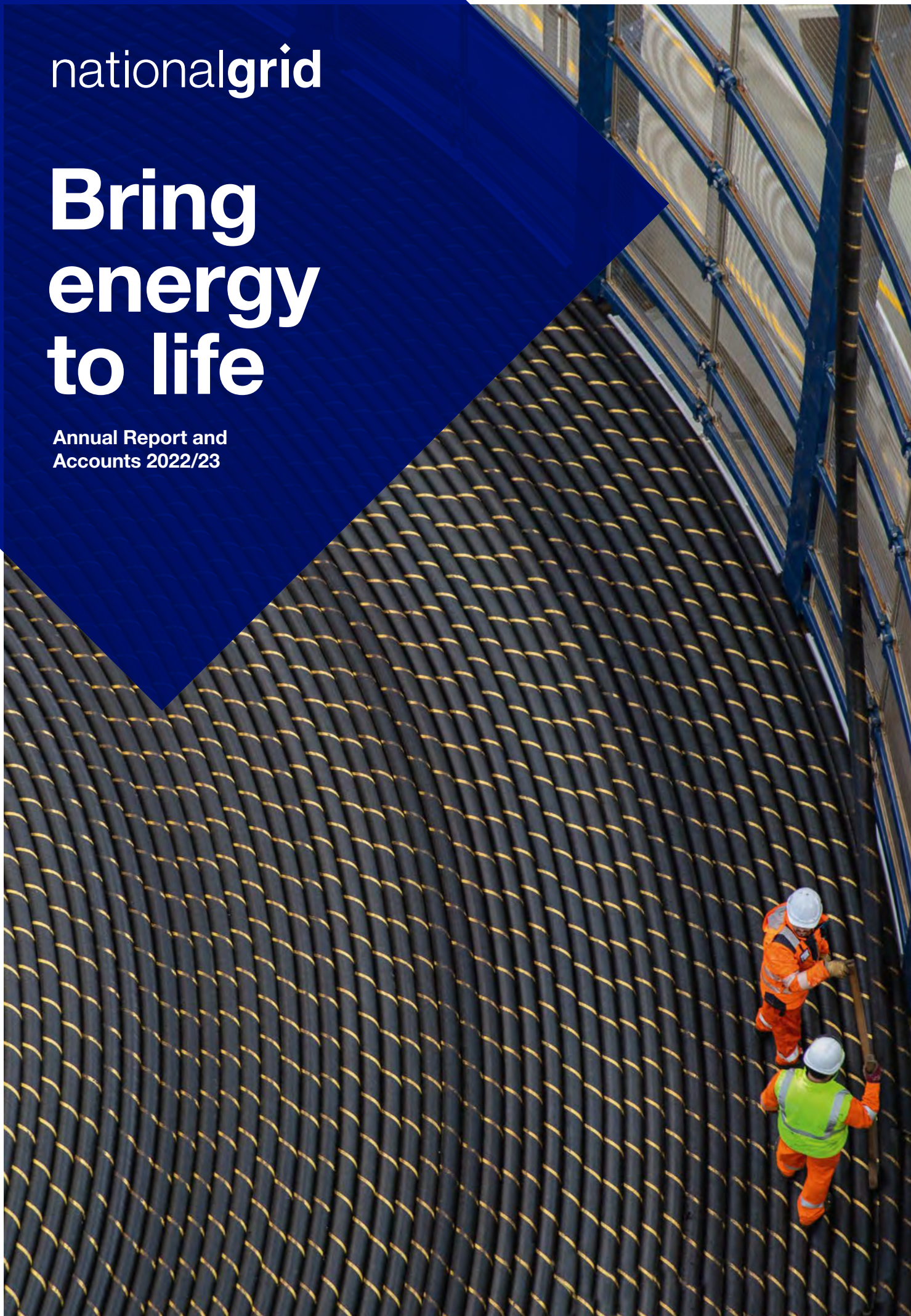


nationalgrid

# Bring energy to life

Annual Report and  
Accounts 2022/23





Our vision  
is to be  
at the heart  
of a

**Clean**



**Fair**



**Affordable**

**energy  
future**

Every day we do  
the right thing,  
find a better way  
and make it happen.



Further reading  
page 2

# Highlights

## Group financial highlights

Statutory earnings per share (EPS) (p)\*

74.2p



Underlying EPS (p)\*

69.7p



Group Return on Equity (RoE) (%)

11.0%



\* From continuing operations. Prior year comparatives include UK Gas Transmission as a discontinued operation.

## Group operational highlights

Group safety performance

(lost time injuries (LTI) per 100,000 hours worked in 12-month period)

0.11



Scope 1 and 2 greenhouse gas emissions

(CO<sub>2</sub> equivalent, million tonnes)

7.2



Employee engagement (%)

81%



\*\* 2021/22 data has been adjusted to exclude the UK Gas Transmission and Metering, and Rhode Island businesses and to include UK Electricity Distribution.

## Further reading

### Online report

The PDF of our Annual Report and Accounts 2022/23 includes a full search facility. You can find the document by visiting the 'About us' section at



[nationalgrid.com/investors/resources](https://nationalgrid.com/investors/resources)

### Responsible business

National Grid has published its annual Responsible Business Report (RBR). The RBR reports progress on the responsible business agenda, including towards the commitments made in our Responsible Business Charter (RBC). You can find both documents by visiting



[nationalgrid.com/document/149521/download](https://nationalgrid.com/document/149521/download)

### Reporting currency

Our financial results are reported in sterling. We convert our US business results at the weighted average exchange rate during the year, which for 2022/23 was \$1.22 to £1 (2021/22: \$1.35 to £1).



### Further reading

Throughout this report you can find links to further detail within this document.



### Alternative performance measure

In addition to International Financial Reporting Standards (IFRS) figures, management also uses a number of alternative measures to assess performance. Definitions and reconciliations to statutory financial information can be found on pages 238 – 252. These measures are highlighted with the symbol above.



### PwC Assured Data

Denotes information subject to limited assurance by PricewaterhouseCoopers LLP (see page 15 for full definition).

### Cover image:

Viking Link subsea cable

We will need to deliver approximately five times more infrastructure in the next seven to eight years than we have in the last 30 years. The availability of key components such as cable will challenge the rapidity of decarbonisation of the energy system.



Throughout the report there are QR codes

you can scan to view content online.

Simply open the camera app on your smartphone to scan the code.



## Inside this report

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# National Grid at a glance

## Our vision

is to be at the heart of a **clean, fair and affordable energy future.**

## Our purpose

is to bring energy to life.

## Our values



**Stand up for safety every day**

**Put our customers first**

**Be inclusive, supporting and caring for each other**

**Speak up, challenge and act where something doesn't feel right**



**Take personal ownership for delivering results**

**Be bold and act with passion and purpose**

**Focus on progress over perfection**

**Follow the problem through to the end**



**Embrace the power and opportunity of diversity**

**Increase efficiency to help with customer affordability**

**Work with others to find solutions for customers**

**Commit to learning and new ideas**



Further reading  
**page 30 of our RBR**

## Where we operate

### United Kingdom

Our core, regulated businesses focus on electricity transmission and distribution. We also balance energy supply and demand as a system operator in Great Britain (GB).

- 1 UK Electricity Transmission
- 2 UK Electricity Distribution
- 3 UK Electricity System Operator

### UK principal offices

**Owned office space:** Bristol, Cardiff, Castle Donington, Plymouth, Warwick and Wokingham

**Leased office space:** London

### North America

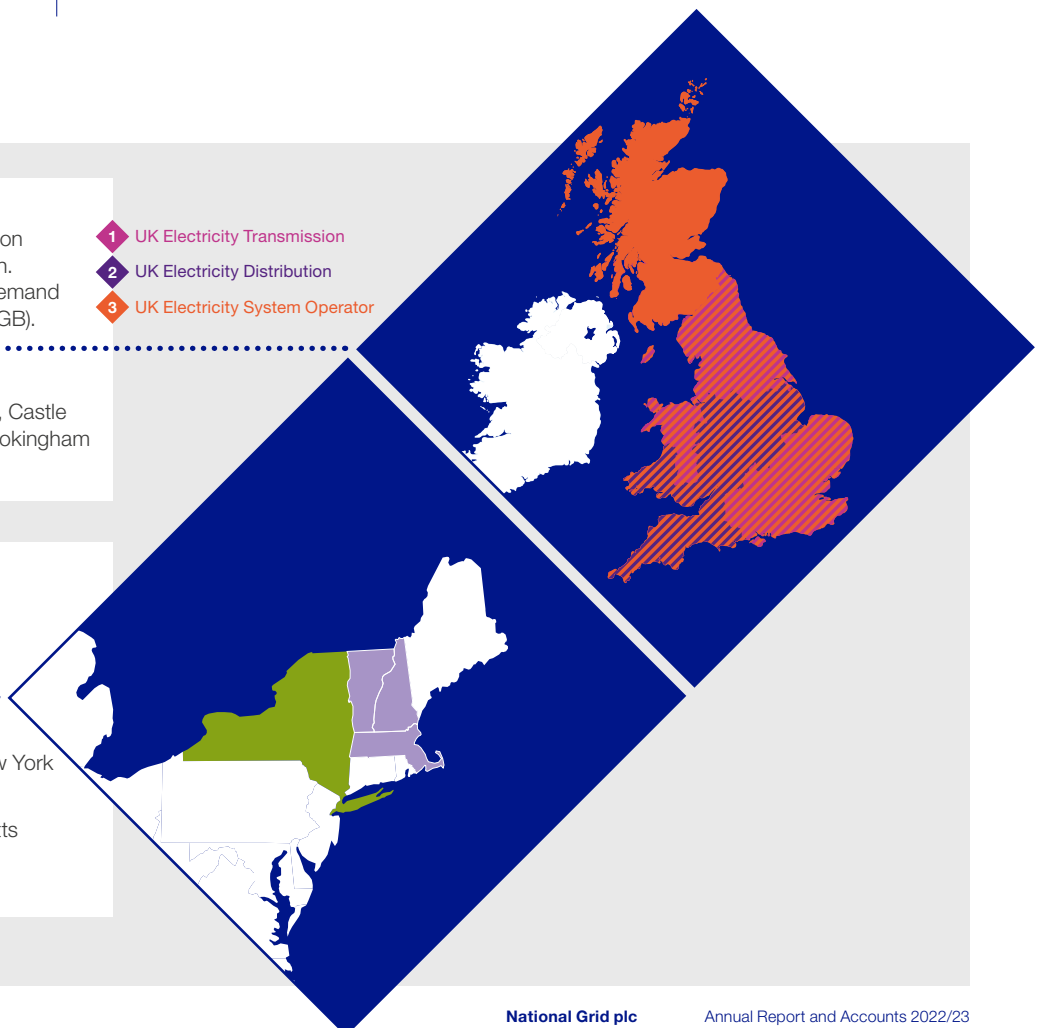
Our core, regulated businesses focus on gas and electricity transmission and distribution.

### US principal offices

**Owned office space:** Syracuse, New York

**Leased office space:** Brooklyn, New York and Waltham, Massachusetts

- 4 New England
- 5 New York



## Our business units

### 1 UK Electricity Transmission (UK ET)

We own and operate the high-voltage electricity transmission (ET) network in England and Wales.

Strategic Infrastructure (SI) is a new business unit, which, effective 1 April 2023, will deliver UK ET projects through the Accelerated Strategic Transmission Investment (ASTI) framework to connect 50 GW of offshore generation by 2030.

### 2 UK Electricity Distribution (UK ED)

We own and operate the electricity distribution networks for the Midlands, the South West and South Wales. The combined network makes us the largest distribution network operator (DNO) group in the UK.

### 3 UK Electricity System Operator (ESO)

We currently operate as the electricity system operator across GB. As announced in April 2022, the ESO is expected to transfer out of National Grid to become part of the newly created Future Grid System Operator (FSO) in 2024.

 Further reading pages 28 – 32

### 4 New England

We own and operate electricity transmission facilities and distribution networks across Massachusetts, New Hampshire and Vermont as well as gas distribution networks across Massachusetts.

### 5 New York

We own and operate electricity transmission facilities and distribution networks across upstate New York. We own and operate gas distribution networks across upstate New York, in New York City and on Long Island.

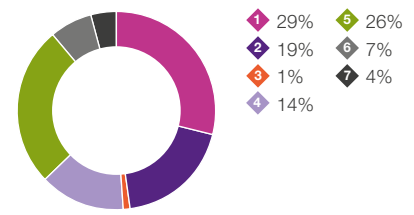
### 6 National Grid Ventures (NGV)

NGV, which operates separately from our core regulated units, is focused on competitive markets across the UK and US. Its portfolio includes electricity interconnectors, liquefied natural gas (LNG) storage and regasification, large-scale renewable generation, conventional generation and competitive transmission.

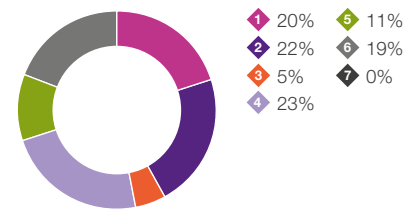
### 7 Other activities

Other activities primarily relate to National Grid Partners (NGP), the venture investment and innovation arm of National Grid, as well as UK property, insurance and corporate activities.

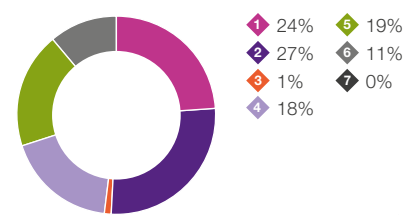
## Regulatory asset value (RAV), rate base and other assets (%)



## Statutory operating profit (%)



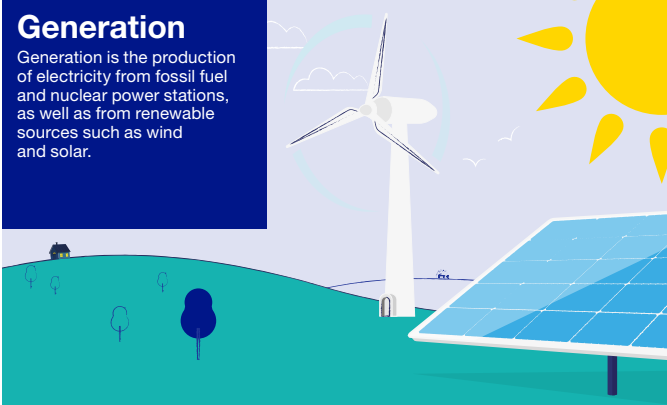
## Underlying operating profit (%)



## Delivering energy to consumers

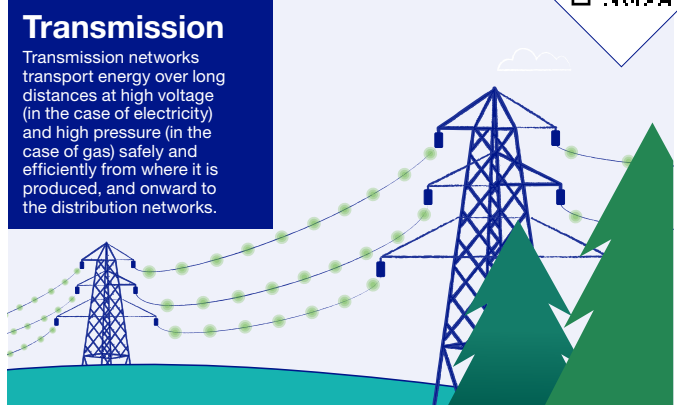
### Generation

Generation is the production of electricity from fossil fuel and nuclear power stations, as well as from renewable sources such as wind and solar.



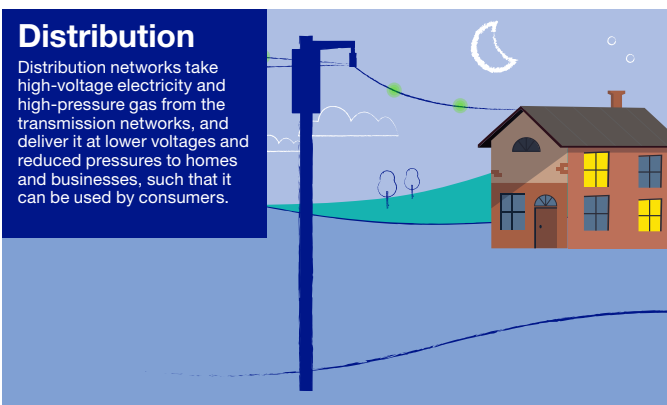
### Transmission

Transmission networks transport energy over long distances at high voltage (in the case of electricity) and high pressure (in the case of gas) safely and efficiently from where it is produced, and onward to the distribution networks.



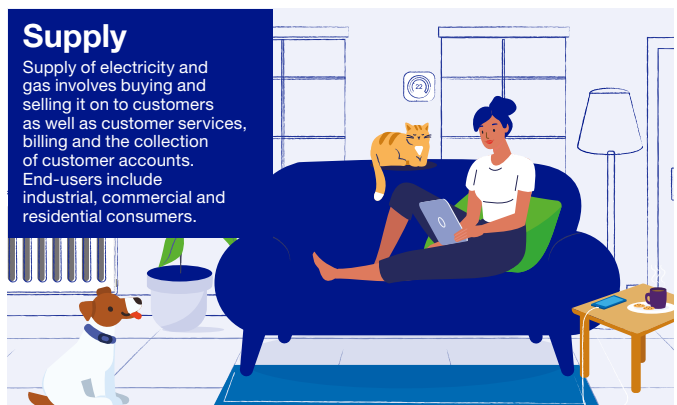
### Distribution

Distribution networks take high-voltage electricity and high-pressure gas from the transmission networks, and deliver it at lower voltages and reduced pressures to homes and businesses, such that it can be used by consumers.

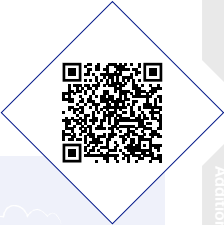


### Supply

Supply of electricity and gas involves buying and selling it on to customers as well as customer services, billing and the collection of customer accounts. End-users include industrial, commercial and residential consumers.



Watch our online video of how we deliver energy



# Our business model

We rely on our internal resources and our strong relationships which we use to do business, drawing on our technical expertise and culture in order to deliver value for our stakeholders and for wider society.

## Our resources and relationships

### Internal resources

#### Physical assets

Our gas and electricity networks are built to last for many decades and account for the vast majority of our asset base. We also own five subsea electricity interconnectors, with a further subsea cable to Denmark (Viking Link) under construction, as well as LNG importation facilities and large-scale renewables in the US.

#### Funding

We fund our business through a combination of shareholder equity and long- and short-term debt. We maintain an appropriate mix of the two and manage financial risks prudently.

#### Colleagues

Our highly skilled, dedicated colleagues have a strong public-service ethos. They manage and maintain the physical energy infrastructure, and assist and develop the many stakeholder relationships crucial to the Company's success.

#### Strong relationships

Our business relies on strong relationships with all our stakeholders. These include:

**our customers**, who depend on us to connect them to the energy they use and who (through a small portion of their energy bills) pay to use our networks. This also includes (in the case of our transmission businesses) the electricity generators and gas suppliers who own the electricity that flows through our cables and gas pipes;

**our contractors and suppliers**, who have complementary experience, skills and resources and with whom we agree mutually beneficial contractual arrangements and, wherever possible, take advantage of economies of scale and use sustainable and global sourcing opportunities;

**national and regional governments, local communities**, and **business and domestic consumers** of the energy we transport; and

the **regulators** who set the prices we can charge for providing an economic, efficient and non-discriminatory service as well as the government agencies responsible for health, safety and environmental standards.

## What we do

### Transmission

Our transmission networks connect industrial properties and distribution networks that deliver the energy on to homes and commercial properties. We also facilitate the connection of generation assets to the transmission system.

### Distribution and supply

In the UK and US, we deliver gas and electricity safely and reliably to millions of consumers connected to our distribution systems. In the US, some of our customers pay us for energy supply costs. Where they choose to buy electricity or gas from third parties, they pay us for distribution only.

### Electricity interconnection

Interconnectors are high-voltage cables used to connect the electricity systems of neighbouring countries. They allow us to trade excess power, such as renewable energy created by the sun, wind and water, between different countries.

We already have interconnectors linking us to France, Belgium, Norway and the Netherlands, and each year they power approximately 6.4 million homes. We are also constructing our sixth interconnector, Viking Link, which will link GB to Denmark, and is due to be operational in early 2024.

## How we create value

### Our technical expertise

We combine our extensive skills, knowledge and capabilities with innovation to ensure we continuously create value for shareholders, customers and wider stakeholders alike.

Our expertise includes the following:

#### Asset management

We invest in and maintain our assets across their life as cost effectively and efficiently as possible.

#### Engineering

The skills of our engineers are vital in performing safely, efficiently, reliably and sustainably for all our businesses.

### Capital delivery

We add value for our stakeholders by ensuring safe and effective delivery of large and complex infrastructure projects, ranging from large portfolios of smaller works to more substantial standalone projects.

National Grid's operations, payments to suppliers, and payments of wages to workers supported £29 billion in gross Value Added contributions to GDP in the US and the UK in 2022/23.

### Innovation

We commit to developing new technologies and innovations, both within our own businesses and through investment in external emerging technology companies, to optimise efficiency and help deliver net zero.

## Why does this matter?

## Benefits to National Grid

### Financial strength

By managing our operations efficiently, safely and for the long term, we generate substantial cash flows. This, coupled with long-term debt financing, enables us to invest in growing our asset base and fund our dividend.

### Investment

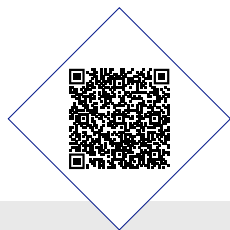
Efficient investment in our networks will deliver strong and sustainable growth in our regulated asset base over the long term.

### Lower capital costs

Using innovation and flexibility initiatives, we look to reduce the amount of network reinforcement costs that would otherwise be needed to deliver the additional capacity required for net zero.

### Shareholder returns

Our dividend policy, approved by the Board in March 2021, is to deliver annual dividend per share growth in line with the rate of CPIH inflation. Our dividend has increased consistently in line with this policy. Full-year dividend on page 6



Visit our website to find out more information on our work in renewables: [nationalgrid.com/nationalgrid-ventures/what-we-do/renewable-energy](https://nationalgrid.com/nationalgrid-ventures/what-we-do/renewable-energy).

### Electricity System Operation

We are responsible for making sure the supply of and demand for electricity are balanced in real time every day across GB. In the US, similar services are provided by independent system operators.

### Renewables

We are working with our partners to accelerate the development of our clean-energy future. In support of this goal, we've made significant investments in the US in large-scale renewable energy projects, including wind, solar and battery storage.

### Storage

Grain LNG is one of three import terminals in the UK. Our world-class facility delivers the highest standards of performance for our customers.

We import LNG from several countries and also own storage facilities in the US.

### Generation

In the US, we own and operate electricity generation facilities on Long Island as well as wind and solar generation through our investment in the Emerald joint venture.

### Our culture

National Grid's culture is the values, beliefs and behaviours that characterise our Company and guide what we do, so we can respond as the energy transition accelerates.

We maintain high standards of ethical business. We also promote behaviours that are aligned with our values and culture by recognising our employees through a Company-wide reward system. This supports both what they achieve and how they have achieved it.



Further reading on Our strategy on **pages 12 – 13**  
 Internal control and risk management on **pages 18 – 24**  
 Our commitment to being a responsible business on **pages 33 – 35**  
 How the Board monitors culture on **page 76**

### Strategy and risk management

As the energy industry continues its transition to a cleaner future, our strategy articulates our priorities clearly, while positioning our business to continue to bring long-term economic benefits into the regions where we operate.

We have well-established governance structures that include comprehensive risk management, strong controls and financial discipline.

## The value we create



### Customers

We aim to deliver safe, reliable, resilient and affordable energy to customers in the communities we serve, driving operational excellence and financial discipline to help keep bills affordable for our customers.



### Investors

We aim to be a low-risk, dependable investment proposition, focused on generating shareholder value through dividends and asset growth. We deliver this through investing in essential assets under primarily regulated market conditions and servicing long-term, sustainable consumer-led demands.



### Colleagues

We aim to create an inclusive environment where our colleagues can make a positive contribution, develop their careers and reach their full potential.



### Suppliers and contractors

We maintain responsible and efficient supply chains where we align our interests, and those of our suppliers, with the interests of customers.



### Communities and governments

We help national and regional governments formulate and deliver their energy policies and commitments. The taxes we pay help fund essential public services. We have an important role to play in sustainability, enabling the transition to a low-carbon future.



### Regulators

We aim to build trust with our regulators through constructive, transparent engagement and by striving to consistently and reliably deliver our commitments.



Further reading on our stakeholders **pages 36 – 37**

### Why does this matter?

## Benefits to society

#### Clean energy future

In addition to our own commitment to reduce our greenhouse gas (GHG) emissions to net zero by 2050, we are working with governments and regulators to help them meet their carbon reduction targets.

#### Fairness and affordability

The transition to clean energy needs to be affordable to all, and we will play our role in ensuring no one is left behind, helping the places where we operate reach their emissions targets.

#### Job creation

We are providing employment opportunities and supporting our colleagues in developing the skills necessary to build a net zero energy system. The direct, indirect and induced economic impact of our investments in 2022/23 supported 247,000 jobs in our regions.

#### Tax contribution

We recognise that our tax contribution supports public services and the wider economy and we endeavour to pay the right amount of tax, at the right time, in accordance with relevant tax laws. The direct and indirect impact of our activities in 2022/23 helped to generate £4.1 billion in tax receipts across the UK and US.



# Chair's statement



## Dear Fellow Shareholder,

If you spent a moment looking at the cover of this year's annual report, you will have seen thousands of metres of high voltage electric transmission cable. We chose this image quite purposefully. This enormous amount of cable is a metaphor for all the work that we have ahead of us. Indeed, National Grid – and the entirety of the electric utility business worldwide – must rewire the energy system. As in the last several years and well into the decades ahead, we will re-engineer and reconfigure our assets. We will be connecting new renewable power sources and be reinforcing our networks to enable consumers to electrify more of the end uses in their homes and businesses. It's a digital world, and ensuring 100% reliable energy delivery is integral to the success of meeting the goals of net zero.

It is this very complexity and scope that has drawn the individuals who sit on the National Grid Board to serve. There are 29,450 individuals who work at National Grid in the UK and US. They are, through their work, setting about changing the world. It is a privilege for me and my fellow Board members to be part of this effort and to be helping guide the strategy as the Company innovates to meet the challenges in front of us.

The UK and US Governments estimate that electricity demand will increase significantly as a result of expanded electrification of vehicles and homes. The amount of infrastructure necessary to enable this massive change in demand – and the sources of supply – is staggering. Public officials in both countries have laid out ambitious plans: setting up auctions to attract offshore wind and large-scale solar development; establishing goals for electric vehicles, heat pumps, smart metering and fast charging; and developing programmes to harness the flexibility in customer use patterns to reduce system peak demands. From governments' ambitions, it is up to National Grid, in collaboration with the global energy sector, to come up with the plan to drive this vision forward.

As a Board, we see three overriding issues that will dictate the speed of rewiring of our two countries for net zero.

First, and perhaps of greatest interest to investors, is whether the right regulatory frameworks will be in place to enable National Grid to finance the expansion of its transmission and distribution systems at the scale needed to meet governments' goals. Building subsea transmission and energy islands, for example, requires longer lead times and has significantly greater technical challenges. We are also in a period of supply chain pressures and elevated inflation across the globe. Traditional regulation isn't well equipped to deal with the scope, scale, and timing exigencies of massive construction programmes.

Second is the issue of permitting and planning policy, a challenge in both countries. In the UK, National Grid has advocated for designating certain transmission programmes as 'nationally significant projects' where local planning would be brought into a coordinated regime with mandatory timeframes for decisions. Such a scheme would feature compensation to landowners and communities for the visual impact of new pylons that will need to be placed into service.

## Final dividend of

# 37.60p

per share proposed to be paid on 9 August 2023

## Full-year dividend (pence per share)





In the US, National Grid supports Congressional efforts to expedite the permitting of linear routes by, among other things, setting maximum timelines for major project reviews, designating projects of 'strategic national importance', and addressing litigation delays. In both jurisdictions, fundamental reform is necessary if we are to build out infrastructure in the timeframes that satisfy society's ambitions for cleaner power sources to replace fossil fuel-based generation.

Third is the advance of technology and our role in delivering it. As I meet with members of the business community, government, and the public, I often find myself spending time on the issues of how alternating current and direct current work, what intermittency means, why the electric system must remain synchronised as measured in cycles per second, and whether batteries are part of the answer. Batteries have a role to play. They address short-term intermittency – the few hours a day when the wind doesn't blow or the sun doesn't shine. But National Grid has been both an investor and a testing site for a number of emerging technologies that address a broader spectrum of challenges on the electric grid, deploying new technologies. Every technology we deploy has a learning curve and we also have work to do in our jurisdictions as to the business model for how technologies will be introduced. Our Board is optimistic that the inventive capabilities of our countries – and the innovative engineering expertise of our colleagues – will deliver solutions in the years ahead. How the pace of technology synchs up with the ambition to reach net zero is uncertain. But from what we've seen National Grid do so far, the Board is confident that the Company will be at the forefront of employing enabling technologies.

Discussion about the continued use of fossil fuels in the transition to net zero has become a charged issue. But the energy transition will take time and natural gas is not easily or economically exited for the many customers we serve today. Our Board supports the direction National Grid has undertaken to invest in new technologies involving decarbonisation of the natural gas which we deliver to our US customers.

I have been involved in the energy industry for over forty years. This is the most exciting time in my career. The three issues described above are in our collective capability to address. My fervent hope is that we can develop a collective will to get moving. Certainly National Grid is a ready and able partner.

We appreciate your support as shareholders – and as global citizens who aspire to a cleaner, fairer, and more affordable energy future.

*Paula Rosput Reynolds*

**Paula Rosput Reynolds**  
Chair

The 2023 Annual General Meeting (AGM) of National Grid plc will be held as a hybrid event at 11am on Monday 10 July 2023. More details on the arrangements for this year's AGM including how to attend virtually can be found on our website in the Investors section at: [nationalgrid.com/investors](https://nationalgrid.com/investors).

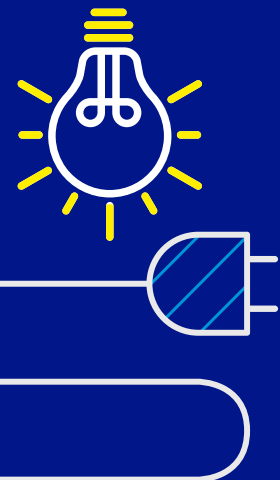
## Unwavering dedication of our colleagues in showing up for the communities we serve

Crews from both New York and New England left their families at home through the Christmas period to head out into the storm and restore power to thousands of households.



The Company donated **\$1 million** to assist Buffalo customers and communities after the December blizzard.

In the UK, over 3,000 households and **250,000 individuals** were supported over the first winter of our energy support fund.



In the UK, **over 1,050** volunteer hours were delivered by National Grid employees in support of Citizens Advice.

# Chief Executive's review



**The energy sector remains firmly in the spotlight. Energy bills are high, net zero targets are getting closer and the weaponisation of global energy is no longer theoretical.**

## Context in which we are operating

In this context, it's very clear that delivering the energy transition at pace, whilst challenging, is vital if we are to create a future energy system that is not just secure and clean, but fair and affordable.

This is not just about the environmental benefits of more renewables on the grid, although that's critical to tackle climate change. It's clear that the benefits of the transition actually reach much further. In both the UK and the US, more renewable energy means lower bills in the longer term, increased energy security, economic growth and the creation of thousands of green jobs.

National Grid – and the whole energy sector – is innovating at a speed not seen before. The scale of the challenge – and opportunity – remains huge.

National Grid is operating at the very heart of this transition. We're driving progress and investing heavily in decarbonising the networks of today while designing the networks of tomorrow. Our colleagues are working hard to deliver a just transition, and to unlock the huge opportunities that this transition can deliver for all.

In the UK, we continue to work closely with the Government and regulator, and we welcome Ofgem's acknowledgement of the need for speed and scale. In particular, I am pleased that the regulator has confirmed National Grid will deliver the 17 projects that will make up the ASTI work on the East Coast. This decision gives National Grid – and the wider industry – clarity on the next step towards a more affordable, resilient and clean energy system. We now need to see a similarly holistic and forward-thinking approach to changes to the anticipatory investment framework, so that these projects can be progressed at pace.

However, we continue to face regulatory and planning hurdles which are slowing the pace of delivery of the net zero infrastructure needed for the energy transition. We urgently need to see regulation that allows for investment ahead of need, a more streamlined planning system and a recognition of the important role communities play in hosting this critical infrastructure if the UK is to reach the Government's decarbonisation targets. On 15 May we published a detailed policy statement 'Delivering for 2035', where we set out five priorities requiring action by the Government and Ofgem; we will continue to work closely with them on how best to push forward the transition at pace and welcome in particular consultations with a focus on the reform of the planning system.

Our winter outlook this year showed that, although extremely unlikely, the UK could have faced some disruption to power supply. I am pleased to say that the extra measures we put in place to manage this – along with relatively mild weather for much of the winter and cooperation from European partners through our interconnectors – have prevented any disruption to supply. We will continue to take a prudent approach to planning in the months ahead as we look to the coming winter.

In the US, we have seen the introduction of the Inflation Reduction Act 2022 (IRA) – one of the most significant investments the US has ever made to develop clean energy and slow the effects of climate change. We welcome this Act and the bold ambition it demonstrates and the many aspects which align well with our own fossil-free vision, which will fully eliminate fossil fuels from both our gas and electric systems by 2050, if not sooner.

However, in the UK, we need to see an increase in the pace at which clean energy infrastructure can be delivered, with a more streamlined permitting system introduced.

I'm pleased that – as the debate on the best path to net zero in the US Northeast continues – we have forged strong inroads with key stakeholders to find pragmatic solutions to bring us closer to a clean, fair and affordable energy future.

## Business highlights from the year

Our strategic pivot is now complete, with the sale of a majority stake in National Grid Gas (now National Gas Transmission) to a Macquarie-led consortium completed during the year. This pivot underlines our commitment to decarbonisation of energy networks in order to reach net zero, and provides a clear focus on electricity in the UK as we look to the future. A new business unit, Strategic Infrastructure (SI), will lead the delivery of the infrastructure required to support an electric future in the UK.

In May, we announced our underlying operating profit was up 15% (10% at constant currency) to £4.6 billion. Over the course of the full year, we continued to invest in the energy transition at pace, investing £7.7 billion across our networks, up 15% on the prior year.

## Investment and delivering for shareholders

I'm extremely proud that National Grid is one of the largest green investors in the FTSE. Over the five years of our financial outlook we anticipate investing up to £40 billion between 2021/22 and 2025/26, of which £29 billion is directly into the decarbonisation of our energy networks (aligned with the EU Taxonomy).



Further reading: [Our business units](#)  
pages 28 – 32

Whilst continuing to invest at scale and pace in both the UK and US, we will deliver average asset growth of 8–10% per annum (compound annual growth rate (CAGR)) and drive underlying earnings per share growth of 6–8% per annum on average (CAGR) through the period 2021/22 – 2025/26.

Continued long-term growth will be underpinned by our strong operational and financial performance. We have the financial visibility to maintain a resilient balance sheet and a track record of delivering efficiently, highlighted by the fact we are making strong progress against our Group cost efficiency programme, having achieved £373 million of cumulative efficiency savings at 31 March 2023 against our £400 million target of savings by 2023/24 announced in November 2021.

## Empowering colleagues, delivering for customers and enriching communities

Against a backdrop of rising wholesale gas prices, and therefore steeper utility bills, we are delivering significant packages of financial support – to run across two years – to our communities in the US and the UK. There is more detail on these initiatives, including detail on the difference they are making to people left most vulnerable by the energy crisis, in our RBR.

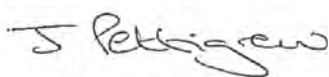
In the US, we committed \$17 million to help customers on the front line of the energy crisis, and our Winter Customer Savings Initiative in Massachusetts resulted in more than 248,000 customers receiving discounted rates, more than 25,000 electing for budget/balanced billing and tens of thousands of customers visiting our dedicated help website.

In the UK, a £50 million fund has been targeted at charities that provide immediate, emergency financial relief to households using pre-payment energy meters; charities that fund energy-efficiency measures to lower bills over the long term; and charities that provide advisory services for households who need help with energy bills, payments and debt. Money from the fund will be used by beneficiary organisations to support people struggling with energy costs by increasing the number of support staff giving advice on phonelines, providing fuel vouchers and improving the energy efficiency of homes at no cost to householders, for example. This fund has supported 30,000 households to date.

This fund is in addition to the £200 million interconnector revenue Ofgem agreed to National Grid paying ahead of schedule. And, subject to regulatory approval, we will return a further £100 million of interconnector revenue to Ofgem ahead of schedule, to help consumers sooner.

Sadly, in May 2022 we had a fatality: we lost a colleague in Massachusetts. He was electrocuted whilst working on live equipment keeping power to a residential building. This loss has had a profound effect on me and the whole organisation. Since then, we have completed a thorough investigation, shared what happened with the whole organisation, changed our Group-wide approach to safety through the establishment of a new policy and safety strategy called ‘Stand Up For Safety’. A second fatality occurred in September 2022 when a vegetation contractor in our New York business died following an allergic reaction to a bee sting. Everyone should return home safely at the end of their working day and following these tragedies we are re-doubling our efforts to ensure this is the case for all who work on our assets.

I am pleased to report that our employee engagement survey, Grid:Voice, which included our UK ED colleagues, shows high levels of engagement and empowerment across the business. I'd like to take this opportunity to give my heartfelt thanks to my colleagues right across National Grid; they have unrivalled dedication, professionalism and commitment to doing the right thing, making it happen and finding a better way.



**John Pettigrew**  
Chief Executive

### UK ET highlights:

Good progress at London Power Tunnels 2 – a £1 billion project to rewire South London – where we have now completed three of five drives for the tunnel boring machines, marking a significant milestone for the project which will future-proof the energy infrastructure of the capital for many years to come.

We've continued to develop our proposals for the critical infrastructure needed to upgrade the network and enable the connection of more offshore wind. We have submitted planning applications for key parts of the grid, and continue to consult with local communities on our plans.

We've wired up and energised 37 of our innovative T-pylons as part of the Hinkley Connection project, which is connecting six million homes and businesses to low-carbon energy. The Hinkley team has also energised Shurton substation in Somerset, to support Hinkley Point C nuclear power station in readiness for the connection of its generators in the future.

### UK ED highlights:

Our new price control, RII0-ED2, which was developed with 25,000 stakeholders over the course of two years, is now agreed with Ofgem.

We have run a significant winter awareness campaign to encourage vulnerable customers to sign up to the Priority Services Register, ensuring people know how best to prepare for winter and that we can serve our customers in the best way possible.

Our most recent customer satisfaction survey showed an average score of nine out of ten for April 2022 – March 2023.

Phil Swift left the business at the end of March, and I'm pleased that Cordi O'Hara has been appointed as President UK ED. I'd like to thank Phil for his valuable service.

### ESO highlights:

Creation of the FSO: we successfully delivered our separation blueprint to Ofgem and the UK Government in December 2022. Subject to agreeing cost recovery, and timely passage of the legislation, we expect the process to complete in 2024, in line with Government ambition.

### New England highlights:

We have been successful in receiving \$336 million in grid modernisation funding and \$487 million pre-authorisation for Advanced Metering Infrastructure spend. These are important milestones for progressing our modernisation of the electric grid.

The Clean Energy and Climate Plan (CECP) issued by the outgoing Baker Administration recognised the role that decarbonised fuels will play in meeting the Commonwealth's net zero ambitions, including for commercial and industrial customers and hard to electrify sectors.

The Massachusetts legislature introduced a bill to advance anticipatory planning and investment to enable transportation electrification along the Commonwealth's highways and a bill to consolidate and better align the permitting process for infrastructure that supports clean energy development and deployment, and engages communities.

### New York highlights:

The regulator has approved over \$2.8 billion in NiMo transmission upgrades to enable National Grid to build ahead of the need to meet the State's 2030 climate goals.

New York state adopted its Scoping Plan for implementation of the Climate Law in late December 2022, and we were pleased that much of it aligns with our fossil-free vision. It's clear that investment in traditional infrastructure will still be necessary to maintain reliability and safety, and that a decarbonised gas system has a key role in achieving emissions reduction targets, as we map a pathway for the scaling up of renewable natural gas and green hydrogen.

The New York state legislature has introduced a bill, written in consultation with National Grid, to establish a highway and depot charging action plan to meet the upcoming surge in demand from the electrification of passenger vehicles and commercial trucks.

### NGV highlights:

Our IFA interconnector returned to service ahead of schedule, taking our total National Grid interconnector capacity to 6.4 GW.

Community Offshore Wind, our partnership with RWE in the Northeast US, has submitted a proposal to the New York State Energy Research and Development Authority for a 1.3 GW offshore wind development, with the potential to power nearly 500,000 homes.

Ofgem has selected two National Grid projects – LionLink to the Netherlands and Nautilus to Belgium – as part of its Multi-Purpose Interconnector (MPI) pilot scheme, which is designed to accelerate the delivery of offshore wind faster.

At Viking Link we have seen the completion of onshore cable works and the converter hall in Denmark, with the project still on track to become operational in early 2024.

It was a record year for Grain LNG with 102 ships unloading, highlighting the impressive availability record and critical role Grain LNG plays in supporting security of supply both here in the UK and for our European neighbours.



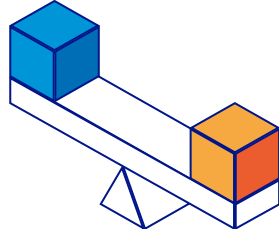
# Our business environment

We are committed to delivering net zero whilst ensuring fairness and affordability for customers. Through our work with governments and regulators, we're delivering infrastructure investments and shaping policy to realise climate goals.

## Fairness and affordability

# +£3bn

economic benefit to New York State from our Community Offshore Wind proposals

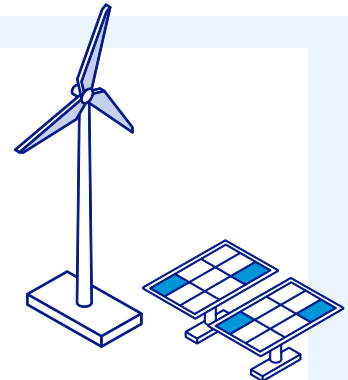


We are committed to delivering energy safely, reliably and affordably to the communities we serve. We will play our role in ensuring no one is left behind in the short term due to increased energy prices, or in the longer-term transition to clean energy.

## Net zero

# 87.6%

zero-carbon generation on 4 January 2023 in the UK



By connecting a growing volume of renewable generation and reducing our own GHG emissions, we're demonstrating our focus on enabling the energy transition.

### Impact on our industry

- Russia's invasion of Ukraine, exacerbated by low nuclear and hydropower generation in Europe, led to significant volatility in UK gas prices, rising 400% from May to August 2022.
- Energy price volatility has been a significant driver of inflation in the UK and US. In the UK, consumer price inflation reached 11.1%, a 41-year high and in the US, peaked at 9.1%.
- Governments have protected customers from the worst extent of energy price volatility through support schemes, and have announced their intentions to review policy and markets to support consumers in the long term.
- In the UK, the Government's independent Net Zero Review stated that "significant governmental action is required to ensure that the UK achieves net zero in the best way possible for the economy and the public".
- More than 90% of global GDP is now covered by a net zero target.
- The US IRA will drive significant investment into energy, manufacturing and networks. Forecasts suggest the IRA will reduce US-economy wide emissions by up to 40% by 2030 from 2005 levels.

### How we are responding

- We have launched support funds in the UK (£50 million) and US (\$17 million) to ease the financial burden that households will face as a result of increasing energy prices.
- We are deploying innovative solutions to increase the capacity of our transmission equipment. For example, we expect to save British consumers £80 million by reducing constraints, areas where infrastructure limits prevent the transfer of more power across network boundaries, on our overhead line running across the M1 motorway.
- We've supported our customers in reducing their energy costs and managing their bills through the launch of Winter Customer Savings initiatives in Massachusetts.
- Our Grain LNG import terminal and interconnectors have seen record activity in their roles supporting energy security in the UK and Europe.
- As at 31 March 2023, we have achieved savings of £373 million out of a targeted £400 million on our three-year programme of efficiency savings announced in November 2021. This included property rationalisation and the use of digital solutions such as our US Gas Business Enablement programme, the electric solution OnMyWay and other new customer initiatives, thereby providing better value for consumers.
- In the UK, we processed over 600 connections offers for transmission customers, double the year before.
- In the US, we launched our fossil-free-future vision to decarbonise our gas networks, and announced our involvement in the Northeast Hydrogen Hub.
- The ESO published the first Holistic Network Design, which proposes a more coordinated approach for the connection of increasing offshore wind generation to transmission networks.
- Through the ASTI framework, we are delivering 17 major new projects in the UK to connect more clean, low-carbon power to the transmission network. These projects will play a vital part in achieving the UK Government's ambition of connecting 50 GW of offshore wind by 2030.
- We have received approval for \$691 million of Phase 1 transmission investment projects and \$2.1 billion in Phase 2 in support of New York's Climate Leadership and Community Protection Act (CLCPA), with all projects planned to be in service by 2030.

## Decentralisation

# 800 MWh

of UK grid demand reduced through Demand Flexibility Service so far



**System flexibility and resilience are becoming increasingly important as the UK and US move away from large, centralised energy generation to a system of more geographically distributed, intermittent energy sources.**

- 2022 saw significant growth in electric vehicles (EVs), with sales growing by more than 25% in the UK and by 65% in the US compared with 2021.
- Driven by policy and innovation, heat pump prices are reducing for consumers.
- Ofgem's RIIO-ED2 regulatory deal for our UK ED business included funding to make network investments that will enable the rapid growth in EV chargers, heat pumps and batteries.

- We say "Yes" to all domestic sized connections on our UK ED network, making it as simple as possible for customers to connect their EVs and heat pumps.
- We're improving access to EV charging equipment in New York and New England by funding infrastructure upgrade costs for customers through our Make Ready scheme.
- In our UK and US distribution businesses, we are building Distribution System Operator (DSO) capabilities to better manage network development, flexibility requirements, and constraint management as increasing volumes of distributed generation connect to our networks.
- As the proportion of renewable and distribution-network-connected generation increases, the ESO is deploying innovative pathfinder solutions to maintain certain grid services, such as inertia, and voltage management, that have been traditionally supplied by coal and gas generators.

## Digitalisation

# £95m

of further efficiency savings expected for our UK distribution customers as a result of innovation and digitalisation in UK ED



**We're bringing customers, colleagues and assets together as we progress on our journey to being an intelligent, connected enterprise. Digitalisation supports our progress towards net zero targets and improves customer experience and value.**

- Ofgem now requires DNOs to publish a network digitalisation strategy, and has announced its plans for the creation of "common digital energy infrastructure" to improve the efficiency and coordination of flexibility markets.
- Supported by policy in the US and UK, networks' investments in digitalisation will enable predictive maintenance, automate operations and control, and support digital twins, making it easier to plan network expansion and connect customers.
- Utilities are becoming increasingly aware and capable in responding to cyber security threats. Cyber-attacks on power grids have been seen in Ukraine, causing blackouts for millions of people.

- We're working with other UK utilities to improve cyber security training on operational technology across transmission and distribution networks.
- Satellite imagery is increasing resilience and saving money for consumers by improving access to information on the condition of our networks in the UK.
- Smart meters are being rolled out to provide real-time information to customers and to enable flexibility services under New York's advanced metering infrastructure programme.
- We're simplifying procedures and improving information sharing between site teams and our Transmission Network Control Centre in UK ET through the launch of new digital tools.

# Succeeding with our strategy

Our vision is to be at the heart of a clean, fair and affordable energy future. To deliver our vision in a focused way, we have a strategy which sets the bounds of our business, guided by four strategic priorities.



Further reading:  
Internal control and risk management on pages 18 – 24

## Strategic priority



### Enable the energy transition for all



### Deliver for customers efficiently

## What this means

We will increase the positive impact we have on the environment and society by innovating and influencing policy to enable clean electricity, and for electrified heat and transport to connect to and use our networks.

Our investments in energy system decarbonisation are underpinned by a track record of operational excellence and financial discipline, ensuring the delivery of safe, reliable, resilient and affordable energy for our customers.

#### Business environment links:

1. Fairness and affordability
2. Net zero
3. Decentralisation
4. Digitalisation

#### KPI link:

- Group capital investment
- Green capital investment
- Climate change – Scope 1, 2 and 3 emissions

#### Business environment links:

1. Fairness and affordability
2. Net zero
3. Decentralisation
4. Digitalisation

#### KPI link:

- Network reliability
- Underlying EPS
- Group RoE
- Total regulated asset growth

## 2022/23 achievements

- We published our US Highway Charging study to forecast future network requirements to support widespread rollout of EVs and charging points.
- In New England, our Make Ready scheme has received approval for an additional 32,000 EV charging ports, including targeted components for low-income households and environmental justice communities.
- UK ET energised Sandford substation as part of our work to connect Hinkley Point C when generation begins in 2027.
- In New England, we launched drop-in events to help customers find ways to manage their energy bills over winter.
- NGV's North Sea Link (NSL), which became operational in October 2021, paid off its carbon construction cost in six months and has saved 800,000 tonnes of carbon in its first year.
- Our Noble Solar and Storage project in Texas went into commercial operation, and is projected to avoid 450,000 tonnes of CO<sub>2</sub> annually during operation.

- In the UK, we are working with retailers and customers to provide additional grid flexibility services when national demand is at its highest. By 30 January 2023, our Demand Flexibility Service delivered almost 800 MWh in demand reduction.
- In the UK, our Take Charge scheme to improve network capacity at motorway service areas in a quick and cost-efficient way won Utility Week's Disruptor of the Year Award.
- We expanded the use of dynamic line ratings in the UK and US to unlock additional network capacity and reduce constraints.
- Construction began on Smart Path Connect, a 100-mile (161-kilometre) transmission project in New York that will reduce congestion during peak periods, providing \$447 million in annual savings.
- Grain LNG played a critical role in supporting security of supply in the UK and Europe with a 60% increase in shipments compared with 2021.
- In the US, we received the Edison Electric Institute Emergency Response Award for our response to four storms throughout 2021/22.

## Key highlights

# 21.6 GW

of wind power on GB's electricity system on 10 January 2023, setting a new wind power record

# 98%

of Winter Storm Elliott NE customers restored within 36 hours

## Looking ahead

- Viking Link, our interconnector to Denmark, is expected to become operational in early 2024 and it will be able to import enough renewable electricity to power 1.4 million homes.
- In the UK, Ofgem has also requested that we work on the early-stage development of other strategic infrastructure under the ASTI framework.
- Our MPI proposals to Belgium and the Netherlands have been taken forward by Ofgem for Initial Project Assessment, with a decision expected late 2023.

- On 6 April 2022 the UK government announced its intention to create an FSO that will take on all the main existing ESO roles and the longer-term elements of the Gas System Operator (GSO). Depending on a number of factors, including timings of legislation, the FSO is expected to be established in 2024.
- Main building works for our new UK ET Control Centre will commence within the next 12 months and will create purpose-built facilities providing improved resilience and security.
- We are advocating for regulatory and planning reform to accelerate our ability to invest in our networks and connect renewable generation in the UK and US.



In the UK, we continue to face regulatory and planning hurdles which are slowing the pace of delivery of the net zero infrastructure so urgently needed for the energy transition. On 15 May 2022, we published our spring policy statement, 'Delivering for 2035', setting out five priorities that require action by government and regulators.

In the US, while the Inflation Reduction Act and Infrastructure Investment and Jobs Act support initiatives like the Clean Energy Vision we published in September 2022, and have the potential to accelerate the energy transition with a pathway that is achievable, significant permitting and siting reform are also needed. We believe that gas will continue to be needed, and therefore we are advocating the vital role of decarbonised gas networks, alongside electrification, as the most viable, affordable and reliable solution for the northeastern US and we are working with regulators and policymakers to provide solutions to achieve this.



## Grow our organisational capability

To deliver our part in a changing energy system, we are transforming our internal processes, strengthening our customer focus and sharpening our commercial edge.

**Business environment links:**

1. Fairness and affordability
2. Net zero
3. Decentralisation
4. Digitalisation

**KPI link:**

- Customer satisfaction
- Group LTIFR

- Our research to replace SF<sub>6</sub> in our networks with more climate-friendly alternatives with the University of Manchester was named Best Innovation in Net Zero and Sustainability at the E&T Innovation Awards.
- UK ED, working with Octopus Energy and Serco, launched our 'Equinox' trial to test demand flexibility with heat pumps under Ofgem's Network Innovation Competition fund.
- We successfully trialed a hydrogen-powered generator at Deeside Centre for Innovation, in the UK, showcasing the potential for carbon intensity reductions of 90%.
- In the US, we launched our northeastern Clean Energy Vision, which includes the clean energy hubs we are building on Long Island. These will bring together solar, offshore wind, generation, clean hydrogen, battery storage, and transmission to help Long Island reach its potential as a clean energy hub.



## Empower colleagues for great performance

Our colleagues shape the delivery of outcomes that exceed the expectations of all our stakeholders. By attracting diverse talent and developing our people, we will ensure our colleagues are best placed to work towards a clean energy future.

**Business environment links:**

1. Fairness and affordability
2. Net zero
3. Decentralisation
4. Digitalisation

**KPI link:**

- Employee engagement index
- Workforce diversity – ethnicity
- Workforce diversity – gender

- We are celebrating the 10th anniversary of our EmployAbility Let's Work Together! supported internship scheme, supporting students with additional educational needs to build skills to get into the workplace.
- We have been recognised for demonstrating exemplary commitment to the health and wellbeing of our workforce by the Worksite Wellness Council of Massachusetts.
- Working with J. Murphy & Sons and Warwick University, we are researching and improving mental health in the construction industry through our Health Hub at the IFA interconnector.
- We have been included in the 2022 Bloomberg Gender-Equality Index, and in the UK were named one of The Times Top 50 Employers for Women 2022.
- In the US, we were recognised as one of the Best Places to Work for LGBTQ+ equality on the Human Rights Campaign Foundation's 2022 Corporate Equality Index.



Business environment pages 10 – 11



Our KPIs pages 14 – 17

# 1st

UK ED was the first DNO in the UK to publish a fully costed DSO transition plan

- We have formed a new business unit, Strategic Infrastructure, to deliver 17 major new projects under the ASTI framework.
- In the US, our Power Out Reporting Tool is on track to roll out in 2023 to supply accurate and up-to-the-minute outage information, enabling us to restore power to customers and communities more safely and quickly.
- In the UK and US, we will continue to build out our DSO capabilities to better manage network development.

# 81%

employee engagement score in our 2023 Grid:voice survey

- We are building partnerships to support growth and vitality in the areas we serve through schemes including #10,000 black interns, Change 100 and Stonewall.
- We strive to achieve 50% diversity in all new talent programmes by 2025.
- We are launching Inspire, our newest employee resource group (ERG), to support social mobility.

# Our key performance indicators (KPIs)

We use a range of metrics<sup>1</sup>, reported periodically, against which we measure Group performance. These metrics are aligned to our strategic priorities.

## Links to strategy



## Financial measures

Strategy link	KPI and performance	Progress in 2022/23						
	<p><b>Underlying EPS (£m)</b> <span style="color: gold;">▲</span></p> <p>This is a measure of the Group's profitability for the year attributable to equity shareholders of the Group. It excludes exceptional items, remeasurements, timing and major storms from its calculation.</p> <p>Our target is to grow Underlying EPS by 6-8% CAGR over a five-year period to March 2026.</p> <table border="1"> <tr> <td>2022/23</td> <td>69.7</td> </tr> <tr> <td>2021/22</td> <td>65.3</td> </tr> <tr> <td>2020/21</td> <td>42.4</td> </tr> </table> <p>new KPI</p>	2022/23	69.7	2021/22	65.3	2020/21	42.4	<p>Underlying EPS grew by 7% in the year. This reflects a full year contribution from UK ED; good operational performance across our US regulated businesses; improved NGV performance across interconnectors; and increased Property sales; partly offset by the sale of the Narragansett Electric Company (NECO), higher interest costs, and our community support.</p> <p>We have included Underlying EPS as a new KPI this year to reflect its importance in managing performance across the Group and to align with key metrics used as part of Directors' Remuneration.</p>
2022/23	69.7							
2021/22	65.3							
2020/21	42.4							
	<p><b>Group capital investment (£m)</b> <span style="color: gold;">▲</span></p> <p>We plan to invest up to £40 billion in the five-year period from April 2021 to March 2026 across all areas of the Group and are one of the FTSE's biggest investors in the delivery of net zero. This KPI measures our annual capital investment.</p> <table border="1"> <tr> <td>2022/23</td> <td>7,740</td> </tr> <tr> <td>2021/22</td> <td>6,739</td> </tr> <tr> <td>2020/21</td> <td>4,843</td> </tr> </table> <p>new KPI</p>	2022/23	7,740	2021/22	6,739	2020/21	4,843	<p>The growth in capital investment was principally driven by higher levels of investment to drive forward energy transition and deliver energy security across all Business Units.</p>
2022/23	7,740							
2021/22	6,739							
2020/21	4,843							
	<p><b>Green capital investment (£m)</b> <span style="color: gold;">▲</span></p> <p>Capital expenditure invested in the decarbonisation of energy systems and considered to be aligned with the principles of the EU Taxonomy legislation at the date of reporting.</p> <p>This provides a transparent view of the Group's compatibility with the net zero goals of the economies we served during the year ended 31 March 2023.</p> <p>Our target is to deliver the current market guidance of £29 billion in green capital investment by 2025/26.</p> <table border="1"> <tr> <td>2022/23</td> <td>5,557</td> </tr> <tr> <td>2021/22</td> <td>4,520</td> </tr> <tr> <td>2020/21</td> <td>Not measured</td> </tr> </table> <p>new KPI</p>	2022/23	5,557	2021/22	4,520	2020/21	Not measured	<p>In 2022/23 we delivered £5.6 billion of green capital investment aligned to the EU Taxonomy, a £1.1 billion increase on 2021/22. This consisted primarily of increased investment in our US and UK electricity networks consisting primarily of investment in asset conditioning, network reliability and connections for additional renewables capacity, as well as a full year of UK ED.</p>
2022/23	5,557							
2021/22	4,520							
2020/21	Not measured							
	<p><b>Group RoE (%)</b> <span style="color: gold;">▲</span></p> <p>In calculating Group RoE, we measure our performance in generating value for shareholders by dividing our regulated and non-regulated financial performance, after interest and tax, by our measure of equity investment in all our businesses, including the regulated businesses, NGV and other activities and joint ventures.</p> <p>Target: 9.5% – 10.75% each year</p> <table border="1"> <tr> <td>2022/23</td> <td>11.0</td> </tr> <tr> <td>2021/22</td> <td>11.4</td> </tr> <tr> <td>2020/21</td> <td>10.6</td> </tr> </table>	2022/23	11.0	2021/22	11.4	2020/21	10.6	<p>Across the Group, we achieved an RoE of 11.0% in 2022/23, down on prior year by 40 basis points. Group RoE was driven principally by a full year contribution from UK ED, strong interconnector performance, offset by higher net financing costs and impacted by the growth in UK RAV in the denominator (because UK RAV is indexed at actual inflation rates).</p>
2022/23	11.0							
2021/22	11.4							
2020/21	10.6							
	<p><b>Total regulated asset growth (%)</b> <span style="color: gold;">▲</span></p> <p>Maintaining efficient growth in our regulated assets ensures we are well-positioned to provide consistently high levels of service to our customers and increases our future revenue allowances. This includes investment for a changing climate, enabling clean electricity, heat and transport.</p> <p>Target: 8 – 10% CAGR asset growth (2021/22 – 2025/26)</p> <table border="1"> <tr> <td>2022/23</td> <td>11.4</td> </tr> <tr> <td>2021/22</td> <td>8.7</td> </tr> <tr> <td>2020/21</td> <td>5.6</td> </tr> </table>	2022/23	11.4	2021/22	8.7	2020/21	5.6	<p>Asset growth during the year was 11.4% (2021/22: 8.7%). This was driven by the £7.7 billion Group Capital Investment along with the impact of higher indexation in respect of the UK Regulated Asset Value.</p> <p>Asset growth excludes the impact of the £9.6 billion reduction in RAV, rate base and other assets as a result of the disposal of our Rhode Island and 60% of our UK Gas Transmission and Metering business during the year.</p>
2022/23	11.4							
2021/22	8.7							
2020/21	5.6							

## Link to remuneration

Remuneration of our Executive Directors, and our employees, is aligned to successful delivery of our strategy. We use a number of our KPIs/ alternative performance measures as specific measures in determining the Annual Performance Plan (APP) and Long-Term Performance Plan (LTPP) outcomes for Executive Directors. These measures are either specifically accounted for in Remuneration targets or considered as part of a review of wider business performance. For further detail, please see our Directors' Remuneration Report, on pages 90 – 106.

**A** Indicates an alternative performance measure

**PwC Assured Data**  
 We engaged PricewaterhouseCoopers LLP (PwC) to undertake a limited assurance engagement, using the International Standard on Assurance Engagements (ISAE) 3000 (Revised): 'Assurance Engagements Other Than Audits or Reviews of Historical Financial Information' and ISAE 3410: 'Assurance Engagements on Greenhouse Gas Statements' over a range of data points within our RBR. The metrics identified with the leaf symbol, featured on page 1 and pages 15 – 16, have been extracted from the RBR and are included in the scope of their work. Details of PwC's full limited assurance opinion and National Grid's Reporting Methodology are set out in the RBR.

## Non-financial measures

Strategy link	KPI and performance	Progress in 2022/23																			
	<b>Climate change – Scope 1, 2 and 3 emissions*</b> This is a measure of our reduction of Scope 1, Scope 2 and Scope 3 emissions of the six primary Kyoto GHGs. Our target is to reduce our combined Scope 1 and 2 GHG emissions by 80% by 2030, by 90% by 2040 and to net zero by 2050, compared with our 1990 emissions of 21.6 million tonnes. Furthermore, we target reducing our Scope 3 emissions by 37.5% by 2034 from 2019 emissions of 33.2 million tonnes and to net zero by 2050. The percentages in the chart below reflect a reduction in our Scope 1 and 2 emissions, from the relevant baseline. The figures are million tonnes of CO <sub>2</sub> equivalent. The total figures in the chart below are in million tonnes of CO <sub>2</sub> equivalent and the percentage represents the Scope 3 proportion.	Our Scope 1 GHG emissions for 2022/23 equate to 4.4 million tonnes of CO <sub>2</sub> equivalent (2021/22: 5.0 million tonnes) and our Scope 2 emissions (including electricity line losses) equate to 2.9 million tonnes (2021/22: 2.8 million tonnes). This is a total of 7.2 million tonnes of CO <sub>2</sub> equivalent for Scope 1 and 2 emissions. These figures include line losses and are equivalent to an intensity of around 337 tonnes per £1 million of revenue (2021/22: 459 tonnes). Our Scope 3 emissions for 2022/23 were 27.9 million tonnes of CO <sub>2</sub> equivalent (2021/22: 27.5 million tonnes). 66% of Scope 1 and 2 emissions were in our US business, with 34% in the UK. For our Scope 3 emissions, 90% were in our US business with 10% in our UK business. Our total energy consumption is 2,842,085,062 KWh where the UK and US are responsible for 1,769,976,526 KWh and 1,072,108,536 KWh respectively. This excludes fuels consumed for power generation in the US which is 15,892,188,400 KWh and system losses which are 15,746,136,404 KWh. We measure and report in accordance with the World Resources Institute and the World Business Council for Sustainable Development Greenhouse Gas Protocol. Scope 1, 2 and 3 emissions are subject to independent limited assurance as set out above. This data complies with the UK government's Streamlined Energy and Carbon Reporting (SECR) requirements. For further detail, please see page 52.																			
	 <table border="1"> <thead> <tr> <th>Year</th> <th>Percentage</th> <th>CO<sub>2</sub> equivalent (million tonnes)</th> </tr> </thead> <tbody> <tr> <td>2022/23</td> <td>70%</td> <td>7.2</td> </tr> <tr> <td>2021/22</td> <td>67%</td> <td>7.8</td> </tr> <tr> <td>2020/21</td> <td>69%</td> <td>7.5</td> </tr> </tbody> </table>  <table border="1"> <thead> <tr> <th>Year</th> <th>CO<sub>2</sub> equivalent (million tonnes)</th> </tr> </thead> <tbody> <tr> <td>2022/23</td> <td>27.9</td> </tr> <tr> <td>2021/22</td> <td>27.5</td> </tr> <tr> <td>2020/21</td> <td>25.7</td> </tr> </tbody> </table>	Year	Percentage	CO <sub>2</sub> equivalent (million tonnes)	2022/23	70%	7.2	2021/22	67%	7.8	2020/21	69%	7.5	Year	CO <sub>2</sub> equivalent (million tonnes)	2022/23	27.9	2021/22	27.5	2020/21	25.7
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1. Three of our previously reported KPIs: Cumulative low-carbon generation connected to our UK ET network, Connections of renewable schemes to US electric distribution network and Cumulative low-carbon generation connected to our UK ED network have been retired as they are duplicative with other KPIs and no longer tracked at a Group level.  
 Two of our previously reported KPIs: NGV Capital Investment and Cumulative Investment in delivering new low-carbon energy sources have been changed and expanded this year to encompass the whole Group.  
 The non-financial results in this section exclude UK Gas Transmission and Metering and Rhode Island.



## Non-financial measures

Strategy link	KPI and performance	Progress in 2022/23
---------------	---------------------	---------------------



### Network reliability

We aim to deliver reliability by planning our capital investments to meet challenging demand and supply patterns, designing and building robust networks, and having risk-based maintenance and replacement programmes, and detailed and tested incident response plans. We measure network reliability separately for each of our business areas. The table below represents our performance across all our networks in terms of availability.

%	2022/23	2021/22	2020/21
UK ET	<b>99.99997</b>	99.99993	99.99997
UK ED	<b>99.99453</b>	99.99469	99.99455
NE Electricity Transmission	<b>99.95212</b>	99.97636	99.95428
NY Electricity Transmission	<b>99.97189</b>	99.95261	99.95429
NE Electricity Distribution	<b>99.96824</b>	99.92725	99.91239
NY Electricity Distribution	<b>99.92384</b>	99.95681	99.92788
<b>Interconnector availability</b>			
IFA interconnector	<b>51.7</b>	61.3	95.4
IFA2 interconnector	<b>95.7</b>	90.4	96.5
BritNed interconnector	<b>99.9</b>	80.4	75.1
NSL interconnector	<b>86.7</b>	63.3	–
Nemo Link interconnector	<b>98.1</b>	99.0	99.2

In both the UK and US, we continued to maintain high levels of reliability on all our networks.

The IFA recovery project following the fire incident that occurred in September 2021 reduced the nominal availability by 40.6%. An additional 4.5% reduction was due to planned outages and another 3.2% a result of unplanned outages. The unplanned outages were mainly due to the Bucholz relay fault in April 2022 and a coolant leak in March 2023.

Current year data performance for UK ED and UK ET is provisional subject to Ofgem review and approval as part of the Annual Iteration Process which is expected by October 2023.



### Customer satisfaction

We measure customer and stakeholder satisfaction, while also maintaining engagement with these groups and improving service levels.

	2022/23	2021/22	2020/21	Target
UK ET (/10)	<b>7.2</b>	7.8	8.4	8.0
ESO (/10)	<b>7.3</b>	7.3	7.5	8.15
UK ED (/10)	<b>8.99</b>	9.03	9.18	–
NE residential – Customer Trust Advice survey (%)	<b>50.5</b>	59.8	63.3	–
NY residential – Customer Trust Advice survey (%)	<b>58.9</b>	64.3	68.1	–

UK ET's score is a result of a combination of pressures with the existing Regulatory Connections Framework, a dramatic uplift in volumes of customer applications, interactive issues of market design and lack of contractual discipline and investment linked to individual customers. We are actively lobbying for changes and working with ESO to design and implement a much improved Connections Framework.

The US metric measures customers' sentiment with National Grid by asking their level of trust in our advice to help them make good energy decisions. The metric, which is tied to the value customers feel they receive from National Grid, has softened in New York and New England, as customers' concern about their ability to pay has increased, primarily due to higher energy prices. 2022/23 New England data excludes Rhode Island. The 2021/22 New England data has also been corrected to 59.8 from 59.9 as disclosed in the 2021/22 Annual Report and Accounts.



### Group lost time injury frequency rate (LTIFR) (LTIs per 100,000 hours worked)

This is the number of worker LTIs per 100,000 hours worked in a 12-month period (including fatalities) and includes our employee and contractor population.

**Target: 0.1 LTIs per 100,000 hours worked**

2022/23	<b>0.11</b>
2021/22	<b>0.13</b>
2020/21	<b>0.10</b>

As at 31 March 2023, our LTIFR was 0.11, which is higher than the Group target of 0.10. This is a combined employee and contractor LTI rate, which reflects our continued focus on encouraging good safety behaviours across the entire workforce. The current year result excludes our former Rhode Island and UK Gas Transmission and Metering businesses whose sales were completed during the fiscal year. If prior year data had been restated on a like-for-like basis, it would have been 0.12 and 0.10 for 2021/22 and 2020/21, respectively.

The 2022/23 LTIFR, although higher than target, represents an improvement over 2021/22. The largest proportion of injuries relate to slips, trips and falls and musculoskeletal strains and twists, where lack of concentration and complacency play a part.

Unfortunately, in May 2022, we suffered one work-related fatality. To address this, we introduced the 'Stand up for Safety' and 'Fatal Risk Group' campaigns to encourage safe behaviour in everyday actions and identify hazardous activities that carry the most potential for life changing injuries. These campaigns are part of the newly developed Group Safety Strategy and Safety Policy that will focus on learning and improving safety performance going forward.

A second fatality occurred in September 2022 where a vegetation contractor in our New York business was stung by a bee. The contractor was allergic to bees and unfortunately the emergency services could not save him. Much of this work is undertaken in public areas for which we have less direct control over, but we understand our reporting responsibilities.

Strategy link	KPI and performance	Progress in 2022/23						
	<p><b>Employee engagement index (%)</b></p> <p>This is a measure of how engaged our employees feel, based on the percentage of favourable responses to questions repeated annually in our employee engagement survey. Our target is to increase engagement compared with the previous year.</p> <table border="1"> <tr> <td>2022/23</td> <td>81</td> </tr> <tr> <td>2021/22</td> <td>81</td> </tr> <tr> <td>2020/21</td> <td>81</td> </tr> </table>	2022/23	81	2021/22	81	2020/21	81	<p>We measure employee engagement through our employee engagement survey called Grid:voice. Our engagement score was 81%.</p>
2022/23	81							
2021/22	81							
2020/21	81							
	<p><b>Workforce diversity (%) – ethnicity</b></p> <p>We measure the percentage of ethnic minorities in our workforce. We aim to develop and operate a business that has an inclusive and diverse culture (see page 34).</p> <table border="1"> <tr> <td>2022/23</td> <td>17.5</td> </tr> <tr> <td>2021/22</td> <td>20.2</td> </tr> <tr> <td>2020/21</td> <td>19.5</td> </tr> </table>	2022/23	17.5	2021/22	20.2	2020/21	19.5	<p>Our ethnic diversity data for 2022/23 has changed in comparison to prior years as it includes UK ED and excludes UK Gas Transmission and Metering and Rhode Island colleagues. Prior year data has not been restated to reflect recent portfolio changes that have occurred within the Group. We recently harmonised UK ED's records for data collection, with those of the Group.</p>
2022/23	17.5							
2021/22	20.2							
2020/21	19.5							
	<p><b>Workforce diversity (%) – gender</b></p> <p>We measure the percentage of women in our workforce. We aim to develop and operate a business that has an inclusive and diverse culture (see page 34).</p> <table border="1"> <tr> <td>2022/23</td> <td>23.6</td> </tr> <tr> <td>2021/22</td> <td>23.1</td> </tr> <tr> <td>2020/21</td> <td>24.7</td> </tr> </table>	2022/23	23.6	2021/22	23.1	2020/21	24.7	<p>Our gender diversity data for 2022/23 includes UK ED and excludes UK Gas Transmission and Metering and Rhode Island colleagues. Prior year data has not been restated to reflect recent portfolio changes that have occurred within the Group, although 2021/22 data does include UK ED results.</p>
2022/23	23.6							
2021/22	23.1							
2020/21	24.7							

## Looking ahead

At our 2022/23 half-year results announcement in November 2022, we upgraded our five-year financial outlook for the period 2021/22 – 2025/26. It highlights the strong growth opportunities we have ahead of us and acts as an important basis for us to communicate our plans and investment case to investors.

## Five-year financial framework

### 2021/2022 – 2025/2026

#### Capital investment

One of the FTSE's biggest investors in the delivery of net zero ...

Up to

**£40bn** c. **£9bn**  
UK ET

c. **£29bn** c. **£6bn**  
green<sup>2</sup>, aligning to EU Taxonomy UK ED

c. **£12bn**  
New York Regulated

c. **£9bn**  
New England Regulated

c. **£3-4bn**  
NGV

#### Group asset growth

**8-10%**  
CAGR<sup>3</sup>

#### Underlying EPS

**6-8%**  
CAGR<sup>3</sup>

#### Credit metrics

Credit metrics to remain within current rating thresholds

Net debt to RAV: low 70% range

#### Dividend

Aim to grow dividend per share in line with CPIH

2. Aligned to EU Taxonomy, directly invested into the decarbonisation of energy networks.

3. Compound annual growth rate 2021/22–2025/26. Forward years based on assumed USD foreign exchange rate of 1.2; long run CPIH and RPI inflation assumptions and scrip uptake of 25%. Reflects the sale of Rhode Island and the sale of 60% stake in UK Gas Transmission and Metering. Assumes 40% equity interest of UK Gas Transmission and Metering as Held for Sale from the start of 2023.

# Internal control and risk management

**The Board is committed to protecting and enhancing our reputation and assets, while safeguarding the interests of our shareholders.**

## Managing our risks

National Grid is exposed to a variety of uncertainties that could have a material adverse effect on the Group's financial condition, our operational results, our reputation and the value of our shares.

The Board oversees the Group's risk management and internal control systems; it sets and monitors the amount of risk the Group is prepared to seek or accept in pursuing our strategic objectives – our risk appetite. The Board assesses the Group Principal Risks (GPRs) and monitors the risk management process through risk review and challenge sessions twice a year.

## Risk management process

Risk strategy, policy and process are set at Group level with implementation owned by the business. Our Enterprise Risk Management (ERM) process provides a framework to identify, assess, prioritise, manage, monitor and report risks. It supports the delivery of our vision, strategy and business model as described on pages 4 – 5. The Group Executive Ethics, Risk and Compliance Committee (Group ERCC), along with equivalent committees in the business units, provides enhanced oversight and governance of risk top-down and bottom-up across the Group.

Our corporate risk profile contains the GPRs that the Board considers to be the main uncertainties currently facing the Group as we endeavour to achieve our strategic objectives. These top risks are agreed through discussions on the Group's risk profile with the Group ERCC, Audit & Risk Committee, Safety & Sustainability Committee and the Board. The risks are reported and debated with the Group ERCC every two months, and with the Board every six months.

### Top-down, bottom-up assessment

Risk management activities take place through all levels of our organisation. Through a 'top-down, bottom-up' approach, all business areas identify the main risks to our business model and our business objectives. For each risk the effectiveness of our internal controls is assessed when calculating the financial, operational and reputational impacts, and how likely the risk is to materialise. Where current risk levels are outside of agreed target scores and our risk appetite, we identify and implement actions to close the gap. Cascade and escalation mechanisms are in place throughout the organisation as appropriate for risk appetite, risks, controls and action plans.

### Who are, and what are the responsibilities of each 'Line of Defence'?

#### First line (1L)

Business unit and Group functions that are responsible for taking, owning and managing risks through implementation of effective policies, processes and controls.

#### Second line (2L)

Specialist Risk and Compliance teams at National Grid; there are two main types of 2L team:

1. **Centres of Excellence:** set the strategic and operational approach and frameworks, including Chief Risk Office (CRO), US Chief Compliance Office (US CCO) and Group Chief Engineering Office (GCEO).
2. **Embedded Risk, Controls & Compliance (RCC) teams:** business unit or Group function teams that offer business advice, monitoring and assurance support to 1L (the business) on risks, controls and compliance.

#### Third line (3L)

Corporate Audit function provides independent assurance over the risk management and internal control systems. 3L function reports directly to the Board and the Audit & Risk Committee and supports senior management regarding the effectiveness of risk and controls management.

### Governance (Board and Audit & Risk Committee, Management Oversight Committees)

Establishes the vision, values and strategic objectives of the business, and provides governance and oversight of the risk management framework and reporting.

### Business 1L

Establishes the business practices, processes, and activities to achieve business objectives whilst managing risk in line with policies and procedures.

### Business Advice & Assurance 2L

Establishes policies, processes and procedures for National Grid's risk management framework and provides oversight, assurance and reporting to governance bodies. As the first line matures and takes on more responsibility for risk management, the level of support of 2L decreases.

### Internal Audit 3L

Provides independent assurance to governance bodies over the Company's system of risk management through internal control and advisory on the internal control framework.

## Emerging risks

Emerging risks (ERs) are less defined than GPRs and typically do not pose an immediate threat. They are future focused, with greater uncertainty and are more difficult to quantify; however, they could threaten the future delivery of our strategy. Utilising future scenarios, horizon scanning and emerging risk assessments we identify ERs that could potentially threaten the delivery of our strategic objectives in the future. Our ongoing ER process includes the identification, assessment, response and reporting of ERs. Assessment includes the potential impact and velocity (time to impact) and our response is to then either watch, monitor or manage the risks that are reported to the Board and Group ERCC using our emerging risk radar. Our process also identifies when an ER should be considered for transition to an active risk and is then incorporated into the scope of relevant GPRs. Examples of existing ERs that we are monitoring include risks associated with quantum computing and enhanced digital technologies, and China/Taiwan tensions.

## Changes during the year

The Group's risk profile has been developed drawing upon the most significant risks across our business profiles. We have 10 GPRs. All GPRs were reviewed by the Board at least twice annually, including an assessment of the key controls, key risk indicators (KRIs), risk scores, alignment to risk appetite, and future mitigation actions. Through these reviews, three new risks have been added as part of our GPR framework: energy balancing risk; major project delivery risk; and financing our business risk.

Due to continued economic and political turmoil rapidly influencing global energy policy and strategy, along with the sale of the UK Gas Transmission and Metering business and the future separation of the ESO, we have bifurcated the energy balancing GPR from the significant disruption of energy GPR. This allows us to better articulate the risk profile, control frameworks and accountabilities for risk across the Group. The energy balancing GPR captures our ability to predict and adequately respond to fluctuations in energy supply or demand.

The significant disruption of energy GPR focuses on the risk of energy disruption caused by the failure, insufficient capacity or other resilience issues across our networks.

Historically, National Grid has demonstrated strong capital delivery with a reputation for delivering large capital projects on time, on budget, and with quality. The risk profile is changing due to the size and strategic importance of our capital programme which will deliver our energy transition ambitions and network resilience amidst increasing external geopolitical and economic pressures. Therefore, in addition to the creation of the new SI business unit, we have added a major projects delivery GPR.

Given the growth of our capital programme and associated funding requirements, alongside the current macro economic factors (with increasing interest rates, high inflation and recent volatile exchange rates) we have also created a standalone financing our business GPR.

## Emerging risks





# Our principal risks and uncertainties



**Accepting that it is not possible to identify, anticipate or eliminate every risk that may arise, and that risk is an inherent part of doing business, our risk management process aims to provide reasonable assurance that we understand, monitor and manage the main uncertainties that we face in delivering our objectives.**

This aim includes considering inherent risks, which in turn exist because of the nature of day-to-day operations in our industry, including financial risks, which exist because of our financing activities. Our GPRs, and a summary of actions taken by management, are provided in the table below. We have provided an overview of the key inherent risks we face on pages 225 – 228, and specifically our key financial risks, which are incorporated within note 32 to the consolidated financial statements on pages 187 – 199. Risk trends reported below take into account controls, any additional mitigation actions and may be influenced by internal or external developments.

## People risks

**It is through the high-quality work of our colleagues that we will achieve our vision, respond to the changing needs of our stakeholders and create a competitive advantage.**

Building and fostering an engaged and talented team that has the knowledge, training, skills and experience to deliver our strategic objectives is vital to our success. We must attract, integrate and retain the talent we need at all levels of the business.

Risk: Capability and leadership	Actions taken by management
<p>There is a risk that we do not have capability and leadership capacity because of ineffective succession planning and recruitment into leadership roles, leading to failure to deliver on our vision and strategy.</p> <p> <b>*Risk trend: Neutral</b> (2021/22: Neutral)</p> <p> <b>Strategic priority link</b> <b>Empower colleagues for great performance</b></p>	<p>We are involved in a number of initiatives to help secure the future engineering talent we require, including industrial placements and internships in the UK and US, advanced and higher apprenticeships in the UK and a graduate development programme across both the UK and US. We are focused on ensuring we have high levels of diversity in these future talent pools. Our entry-level talent development schemes (graduate training and apprenticeships) are a potential source of competitive advantage in the marketplace.</p> <p>We also continue to develop the rigour of our succession planning and development planning process, particularly at senior levels. It is now being applied deeper into the organisation together with continued attention in relation to the ethnic diversity of both our management and field force population. There are multiple activities under way to drive this agenda, including 'neutral' talent and selection processes, development interventions, ERGs, Leadership Connections and a global launch of our DEI, strategy and resources.</p> <p>Over the course of 2023/24 and 2024/25 we will be continuing the focus on the development of our leadership capability by ensuring that we are clear on the expectations of our leaders through the further embedding of our Leader/Manager Essentials and a clear assessment framework for internal and external recruitment into leadership positions.</p>

## Financial risks

**While all risks have a direct or indirect financial impact, financial risks are those which relate to financial objectives and performance. Financial risk management is a critical process used to make investment decisions and aims to maximise investment returns and earnings for a given level of risk.**




This year we have recognised a new financing our business GPR, details of which are included below. In addition we identify and manage a number of child financial risks, a description of all of our key financial risks is provided in note 32 to the consolidated financial statements on pages 187 – 199.

Risk: Financing our business	Actions taken by management
<p>There is a risk that we are unable to fund our business efficiently as a result of lack of access to a wide pool of investors, market volatility, unsatisfactory regulatory outcomes or unsatisfactory financial or operational performance of the business, leading to a lack of access to capital, impacting our ability to achieve our strategic objectives.</p> <p> <b>*Risk trend: Neutral</b> (New)</p> <p> <b>Strategic priority link</b> <b>Enable the energy transition for all</b></p>	<p>This risk is impacted by management of the other GPRs, since our access to new funding from investors is facilitated by close monitoring of our strategic and operational risks, in particular those related to the management of our regulatory outcomes and the safe and reliable operation of our network businesses.</p> <p>In addition, we maintain a funding strategy and funding plan, and engage frequently with stakeholders, including credit rating agencies, banks and investors, so that we can take account of their views as we monitor and update this plan.</p> <p>We maintain a diverse range of funding sources and monitor our funding risk by use of both short- and long-term cash flow forecasts. These forecasts are supplemented by a financial headroom analysis used to assess funding requirements for at least a 24-month period and we maintain adequate liquidity for a continuous 12-month period. Liquidity is made up of existing cash and investments, and forecast operating cash flows together with the use of committed bank facilities if required.</p>

## Strategic risks



**Strategic risk is the risk of failing to achieve the Group's overall strategic business plans and objectives, as well as failing to have the 'right' strategic plan. We intentionally accept some risk so we can generate the desired returns from our strategy.**

Management of strategic risks focuses on reducing the probability that the inherent risk would materialise, while improving the Group's ability to effectively respond to the risk should it occur. The risk owners, Executive-level leaders and their teams develop and monitor actions to control the risks. The political climate and policy decisions of our regulators were key considerations in assessing our risks.

Risk: Climate change	Actions taken by management
<p>There is a risk that we fail to identify and/or deliver upon actions necessary to meet our climate change targets and enable the wider energy transition because of poor management of threats and opportunities associated with mitigating climate change, leading to a reputational impact of not enabling us to meet our net zero commitments, which are to:</p> <ul style="list-style-type: none"> <li>ensure our business model and strategy are aligned to the Paris Agreement on climate change;</li> <li>deliver GHG emissions reductions for our business and enable economy-wide net zero transition; and</li> <li>demonstrate climate change leadership within the energy sector.</li> </ul> <p> <b>*Risk trend: Neutral</b> (2021/22: Neutral)</p> <p> <b>Strategic priority link</b> <b>Enable the energy transition for all</b></p>	<p>Putting in place measures to:</p> <ul style="list-style-type: none"> <li>continue to evolve our environmental sustainability metrics to reflect our strategy, measure our impact and track our progress;</li> <li>evolve our external environmental, social and governance (ESG) disclosures to reflect external best practice;</li> <li>recruit the requisite capabilities and expertise to ensure we meet evolving external expectations on climate change disclosure and continuing work on programmes to develop skills in our current and future workforce;</li> <li>ensure our internal reporting and governance develop so management has oversight of key risks and opportunities related to climate change and GHG emissions performance;</li> <li>advocate for legislative and policy changes that advance decarbonisation, in alignment with our strategy, while proposing and delivering actions in the regions we operate to accelerate decarbonisation for the public and our customers. This work is wide-ranging from system improvements to supporting renewable generation connections, EV proposals, oil to gas/electricity heat conversions, energy efficiency, interconnectors, thought leadership and investment in new and emerging areas;</li> <li>regularly assess the potential range of net zero pathways and future impact on our gas assets, including evaluation of new and evolving technologies and alternative fuel sources (e.g. hydrogen);</li> <li>track progress against key milestones in our decarbonisation pathways, including regulatory and policy instrument developments, volume of renewable connections, incorporation of renewable natural gas (RNG) into gas networks, supporting the charging infrastructure required for increased use of EVs, promoting energy efficiency programmes for customers in the US and facilitating decarbonisation in the UK and US including zero-carbon operation of the GB electricity system through the ESO and renewable gases in our US gas distribution networks; and</li> <li>continue to comply with the TCFD recommended disclosures, including physical and transitional scenario analysis (see pages 38 – 51).</li> </ul>
<p>There is a risk that we fail to influence future energy policies and secure satisfactory regulatory agreements because of lack of insight or unsuccessful negotiations, leading to poor regulatory outcomes, energy policies that negatively impact our operations, impacts on market prices, reduced financial performance, fines/penalties, increased costs to remain compliant and/or reputational damage.</p> <p> <b>*Risk trend: Neutral</b> (2021/22: Neutral)</p> <p> <b>Strategic priority link</b> <b>Enable the energy transition for all</b></p>	<p>In both the UK and the US, we strive to maintain a good understanding of the regulatory agenda and emerging issues, so that robust, public interest aligned responses can be selected and developed in good time. Our reputation as a competent operator of important national infrastructure is critical to our ability to do this. We have plans and governance structures in place to address key regulatory proceedings such as UK price controls and US rate case filings.</p> <p>Ongoing work to support our regulatory relationships includes the following:</p> <ul style="list-style-type: none"> <li>in the UK, we are influencing policy through a range of avenues, including inputting and responding to legislation, Government consultations and other outputs, direct engagement with Government departments and Ofgem, and engagement with wider stakeholders such as parliamentarians, trade associations and third parties;</li> <li>in the US, we are influencing policy through a range of avenues, including inputting and responding to legislative proposals, regulatory rulemakings and requests for information and other outputs; advocating with Congress and the Administration; and engagement with wider stakeholders such as trade associations, think tanks and other non-governmental organisations;</li> <li>establishment of regulatory strategy focusing on the importance of anticipatory investment in networks, connections reform and performance-based regulation;</li> <li>establishment of executive oversight groups and regulatory steering committees for all rate cases/price controls and other major regulatory proceedings; and</li> <li>increased focus on understanding the needs and expectations of customers and stakeholders through regulatory relationship surveys, investor surveys and review of media sentiment.</li> </ul>

## Our principal risks and uncertainties continued

### Strategic risks continued

Risk: Political and societal expectations and perceptions	Actions taken by management
<p>There is a risk we do not position ourselves appropriately to political and societal expectations because of a failure to proactively monitor the landscape (particularly the energy trilemma) or, to anticipate and respond to changes leading to reputational damage, political intervention, threats to the Group's licences to operate, and our ability to achieve our objectives.</p> <p> <b>*Risk trend: Neutral</b> (2021/22: Neutral)</p> <p> <b>Strategic priority link</b> <b>Enable the energy transition for all</b></p>	<p>Processes and resources are in place to review, monitor and influence perceptions of our business and our reputation by:</p> <ul style="list-style-type: none"> <li>• tailoring our customer, stakeholder and media communications;</li> <li>• enhancing and consolidating our digital roadmap and social channels;</li> <li>• delivering on our commitment to be a responsible business (see pages 33 – 35); and</li> <li>• promoting partnerships and proactive policy change discussions across the jurisdictions where we operate.</li> </ul> <p>Considerations on emerging risks and horizon scanning activities have been addressed as part of financial and reputational impact assessments. These processes, along with Board strategy discussions, are reviewed regularly to ensure they continue to support our short- and long-term strategy. We regularly monitor and analyse market conditions, competitors and their potential.</p>



### Operational risks



**Operational risks relate to the losses resulting from inadequate or failed internal processes, people and systems, or due to external events. These risks normally fall within our low-risk appetite level as there is no strategic benefit from accepting the risk, as it will not be in line with our vision and values.**

Our operational principal risks have a low likelihood of occurring. However, should an event occur, without effective prevention or mitigation controls it would be likely to have a high level of impact. The risk owners, Executive-level leaders and their teams develop and monitor actions to control the risks. Operational risks are managed through policy, standards, procedure-based controls, active prevention and monitoring. Principal risk assessment includes reasonable worst-case scenario testing and the financial and reputational impact should a single risk or multiple risks materialise.

Risk: Cyber security	Actions taken by management
<p>There is a risk that we are unable to adequately anticipate and manage disruptive forces on our systems because of a cyber-attack, poor recovery of critical systems or malicious external or internal parties, resulting in an inability to operate the network, damage to assets, loss of confidentiality and integrity and/or availability of systems.</p> <p> <b>*Risk trend: Increasing</b> Driven by increased threat from global geopolitical tensions (2021/22: increasing)</p> <p> <b>Strategic priority link</b> <b>Grow our organisational capability</b></p>	<p>We are committed to providing secure and resilient services and continue to commit significant resources and financial investment to maintain the security of our systems and data. Our holistic approach includes:</p> <ul style="list-style-type: none"> <li>• close partnerships with UK and US government agencies including the Department for Business &amp; Trade, the National Protective Security Authority, Ofgem, the National Cyber Security Centre, the Department of Energy, the Department of Homeland Security and Cybersecurity and Infrastructure Security Agency to understand threats and collaborate on risk management activities;</li> <li>• utilisation of good practice frameworks including the National Institute of Standards and Technology Cyber security Framework to ensure National Grid can identify, protect, detect, respond and recover from cyber security threats. This includes the implementation of control frameworks across our security programmes in information technology (IT), operational technology and Critical National Infrastructure; and</li> <li>• a strong focus on compliance with our regulatory obligations including the Security of Network and Information Systems Regulation in the UK, the US North American Electric Reliability Corporation Critical Infrastructure Protection and the Transportation Security Administration Security Directives.</li> </ul>

## Operational risks continued





Risk: Significant safety or environmental event (asset failure)	Actions taken by management
<p>There is a risk of a catastrophic asset failure or bulk power system failure because failure of a critical asset or system, substandard operational performance or inadequate maintenance, over-pressurisation, leak-prone pipe, third-party damage and undetected system anomalies, leading to a significant public or employee safety and/or environmental event.</p> <p> <b>Risk trend: Neutral</b> (2021/22: Neutral)</p> <p> <b>Strategic priority link</b> <b>Grow our organisational capability</b></p>	<p>We continue to focus on risk mitigation actions designed to reduce the risk and help meet our business objectives. Key actions include:</p> <p>Ongoing preventative measures:</p> <ul style="list-style-type: none"> <li>• inspection and maintenance programmes including defect management;</li> <li>• UK and US winter preparedness plans;</li> <li>• US storm-hardening programme;</li> <li>• outage planning;</li> <li>• US gas services and metering inspections to domestic properties;</li> <li>• US gas leak-prone pipe replacement programme; and</li> <li>• Group-wide learnings from the IFA1 fire (September 2021).</li> </ul> <p>Event response:</p> <ul style="list-style-type: none"> <li>• emergency response plans;</li> <li>• incident management system;</li> <li>• disaster recovery; and</li> <li>• business continuity management.</li> </ul> <p>Embedded Group-wide process safety management system:</p> <ul style="list-style-type: none"> <li>• to make sure a robust and consistent framework of risk management exists across our high-hazard asset portfolio, with safety-critical assets clearly identified on the asset register.</li> </ul> <p>Implemented asset management and data management standards, including:</p> <ul style="list-style-type: none"> <li>• supporting guidelines to provide clarity around what is expected;</li> <li>• a strong focus on what we need in place to keep us safe, secure and legally compliant; and</li> <li>• established capability frameworks to make sure our workforce has the appropriate skills and expertise to meet the performance requirements of these standards.</li> </ul>

Risk: Significant disruption of energy	Actions taken by management
<p>There is a risk that we fail to predict and respond to a significant disruption of energy supply because of climate change, asset failure (including third-party assets), storms, attacks, market failure or other emergency events leading to significant customer harm, lasting reputational damage with customers, regulators, and politicians, material financial losses, loss of franchise, and damage to investor confidence.</p> <p> <b>Risk trend: Neutral</b> (2021/22: Neutral)</p> <p> <b>Strategic priority link</b> <b>Deliver for customers efficiently</b></p>	<p>We continue to apply a holistic approach to managing this risk through preventative mitigating actions to maintain network reliability, and timely and effective response plans.</p> <p>Key management actions include:</p> <p>Ongoing preventative measures:</p> <ul style="list-style-type: none"> <li>• accelerating proactive maintenance and asset checks ahead of winter to maximise network availability;</li> <li>• working closely with energy suppliers, Ofgem and the Department for Business &amp; Trade to explore wider industry mitigations designed to maximise supply, manage demand, and enhance storage flood contingency plans for substations;</li> <li>• system operator supply and demand forecasting;</li> <li>• enhanced winter preparedness and scenario planning;</li> <li>• testing our response plans, including establishing a proactive communication strategy covering a range of scenarios;</li> <li>• US gas mains replacement programmes;</li> <li>• US storm-hardening programme; and</li> <li>• outage planning.</li> </ul> <p>Event response:</p> <ul style="list-style-type: none"> <li>• emergency response plans;</li> <li>• incident management system;</li> <li>• disaster recovery; and</li> <li>• business continuity management.</li> </ul> <p>We have also reviewed market resource adequacy and balancing (where applicable). The short-term controls and investments needed for a resilient network are in place, but further work remains to be done to build out our climate adaptation forecasting and control framework for the next decade.</p>



## Our principal risks and uncertainties continued

### Operational risks continued

Risk: Energy balancing	Actions taken by management
<p>There is a risk that we fail to effectively predict or respond to fluctuations in energy supply and are unable to balance supply and customer demand, or appropriately respond to energy supply constraints, due to external, system or human factors leading to adverse impacts on customers and/or the public.</p> <p> <b>*Risk trend: Neutral</b> (separated from the significant disruption of energy GPR)</p> <p> <b>Strategic priority link</b> <b>Deliver for customers efficiently</b></p>	<p>With the 60% sale of our UK Gas Transmission and Metering business, this risk primarily focuses on the role of our UK ESO in balancing the UK electricity supply–demand, and our US Gas businesses’ response to potential energy supply constraints.</p> <p>Significant preparations were put in place, as we worked closely with the UK Government and the wider industry to mitigate the risks associated with concerns over winter energy supplies to the UK and across Europe.</p> <p>Enhanced measures include:</p> <ul style="list-style-type: none"> <li>• close engagement with energy suppliers, Ofgem, DESNZ, Interconnected Transmission System Operators and the wider European energy industry to maximise supply, manage demand, and contingency arrangements;</li> <li>• the development of a world-first demand flexibility service;</li> <li>• a media strategy ahead of winter; and</li> <li>• an enhanced service through contracting with coal fire power stations.</li> </ul>
<p>There is a risk that we are unable to deliver on our major capital project programme within the required timeframes because of: a lack of a clearly defined regulatory and financial frameworks to incentivise investment; complex planning requirements; external impacts on supply chain; or a failure to demonstrate clear long-term economic benefits to communities, leading to increased costs, compromised quality and reputational damage and detrimentally impacting our ability to deliver our clean energy transition strategy.</p> <p> <b>*Risk trend: Neutral</b> (new)</p> <p> <b>Strategic priority link</b> <b>Enable the energy transition for all</b></p>	<p>Historically, National Grid, as an asset-intensive organisation, has demonstrated strong capital delivery and built a good reputation with investors and stakeholders for delivery of large capital projects on time, to the required quality and within budget.</p> <p>UK ET has an expanded pipeline of major projects to deliver. In fact, it is the largest transmission growth the UK has seen for 50 years. We need to ensure that we remain well-placed to deliver on our strategic priorities and our pivotal role as a leader in the energy transition.</p> <p>As part of the challenging conditions and changing environment we continue to face, we must also keep evolving and adapt our operating model so that we are set up for success. As a result, a new business unit, SI was created from 1 April 2023. The remit of this business unit will include the delivery of the 17 major East Coast infrastructure projects in the UK, as well as other strategic projects to help us deliver on our net zero ambitions and help the UK Government meet its targets.</p>

\* Risk trends are assessed to include any external factors outside our control as well as the strength and effectiveness of our controls and additional mitigations as reviewed by management up to 31 March 2023.

# Viability statement

**The Board's consideration of the longer-term viability of the Company is an extension of our business planning process. The process includes financial forecasting, a strict risk management assessment and regular budget reviews and scenario planning incorporating industry trends, considering any emerging issues and economic conditions. Our business strategy aims to enhance our long-term prospects by making sure our operations and finances are sustainable.**

In accordance with provision 31 of the Code, the Directors have assessed the prospects and viability of the Group. Utilising our established top-down, bottom-up risk management process, the GPRs facing the Group as described on pages 18 – 24 are monitored and challenged. Over the course of the year, the Board has considered the preventative and mitigating controls and risk management actions in place for the GPRs and discussed the potential financial and reputational impact of the GPRs against our ability to deliver the Group's business plan.

The assessment of the potential impact of our GPRs on the longer-term viability of the Company tests the significant solvency and liquidity risks involved in delivering our business objectives and priorities. The Board has chosen to conduct its review for a period of five years to May 2028, which it believes is the appropriate timeframe as it aligns with our annual business plan models that reflect the UK price control periods.

Our GPRs are subject to annual stress testing to assess whether we have a reasonable expectation that the Company will be able

to continue in operation and meet its liabilities as they fall due (our continued viability). Viability is assessed considering the criteria detailed in the table below (Table A).

Each GPR was considered for inclusion within the testing and, where appropriate, a RWCS was identified and assessed for impacts on operations and/or financial performance over the five-year assessment period as detailed in the table below (Table B).

In addition to testing individual GPRs, the impact of a cluster of the GPRs materialising over the assessment period was also considered. By assessing the interconnectivities of our GPRs we have selected the risk cluster RWCS that pose the most significant threat to our viability. Our cluster RWCS modelled the financial impact of a significant cyber attack, resulting in a significant data breach, a catastrophic asset failure in the US gas businesses, energy disruption and a loss of our New York gas operating licences.

The reputational and financial impacts for each scenario were considered.

The Board assessed our reputational and financial headroom and reviewed GPR testing results against that headroom. Although the risk cluster RWCS would lead to significant impacts, a combination of management remediation actions would ensure no GPR nor cluster would have an impact on the viability of the Company over the five-year assessment period. Preventative and mitigating controls in place to minimise the likelihood of occurrence and/or financial and reputational impact are contained within our assurance system.

In assessing the impact of the GPRs on the Company, the Board has considered the fact that we operate in stable markets and the robust financial position of the Group, including the ability to sell assets, raise capital and suspend or reduce the payment of dividends.

The Board was satisfied that it had sufficient information to judge the viability of the Company. Based on the assessment described above and on pages 18 – 24, the Board has a reasonable expectation that the Company will be able to continue operating and meet its liabilities over the period to May 2028.

## Viability criteria

<b>Reasonable worst-case scenario (RWCS)</b>	A theoretical generic representation of a challenging yet plausible manifestation of a risk. The RWCS is considered worst-case once the high-impact, low-likelihood manifestations of a risk have been discounted.
<b>Five-year horizon</b>	A five-year assessment period represents a reasonable time horizon that coincides with our more detailed annual business plan models. It is a period over which we can foresee and quantify reasonably accurately the potential impact of future risk events.
<b>Cliff-edge risks</b>	Cliff-edge risks are threats that would occur beyond the assessment period, have a reasonably certain impact and are sufficiently large enough to threaten our viability. We look for significant and potential cliff-edge risks beyond the five-year period. If any such risks are identified, then an assessment period beyond five years is considered.
<b>Financial and reputational risk capacity</b>	We primarily assess our viability from the RWCS in two ways: financial risk capacity and reputational risk capacity.
<b>Business plan stress testing</b>	We assess the financial impact and financial risk capacity of our risk testing using the latest business plan.
<b>Individual risk testing</b>	For each GPR we assess the potential financial and reputational impact.
<b>Risk cluster testing</b>	We also test for risk clusters; the impact of more than one of the GPRs materialising during the assessment period, or where the materialisation of one risk could exacerbate another.
<b>Mitigation actions</b>	Where a risk scenario would potentially exceed our financial risk capacity, we consider reasonable management mitigation.

Table A

## RWCS assessment

### Operational impacts

<b>Scenario 1</b>	A significant cyber attack.
<b>Scenario 2</b>	Significant energy disruption event occurring due to asset failures in the US during peak season.
<b>Scenario 3</b>	Significant energy disruption event occurring in the UK during winter due to insufficient generation supply.
<b>Scenario 4</b>	A significant process safety gas pipeline failure in the US.
<b>Scenario 5</b>	Inability to deliver our major capital projects on time and to budget.

### Performance impacts

<b>Scenario 6</b>	Poor outcome of future US rate case filings, and low performance under RIIO-T2 and RIIO-ED2.
<b>Scenario 7</b>	Not meeting our net zero targets.
<b>Scenario 8</b>	Increased political-societal pressures associated with a prolonged cost of living crisis.
<b>Scenario 9</b>	Continuation of high and volatile interest rates.

Table B

## Viability statement continued

Principal risk	Viability scenario	Matters considered and overseen by the Board
<p><b>Cyber security</b></p> <p>There is a risk that we are unable to adequately anticipate and manage disruptive forces on our systems because of a cyber attack, poor recovery of critical systems or malicious external or internal parties, resulting in an inability to operate the network, damage to assets, loss of confidentiality, integrity and/or availability of systems.</p>	<p><b>Scenario 1</b> – A significant cyber attack. £755 million (\$830 million) net (post insurance) cost impact. Included in the risk cluster testing.</p>	<p><b>The Board and Audit &amp; Risk Committee reviewed and discussed cyber security including:</b></p> <ul style="list-style-type: none"> <li>• a risk paper highlighting cyber threat due to geopolitical factors; and</li> <li>• a cyber risk deep dive session.</li> </ul>
<p><b>Significant disruption of energy</b></p> <p>There is a risk that we fail to prevent or respond to a significant disruption of energy because of climate change, asset failure (including third-party assets), storms, attacks, market failure or other emergency events, leading to significant customer harm, lasting reputational damage with customers, regulators and politicians, material financial losses, loss of franchise and damage to investor confidence.</p>	<p><b>Scenario 2</b> – Significant energy disruption event due to asset failure in the US. No significant financial impact.</p>	<p><b>The Board and Audit &amp; Risk Committee:</b></p> <ul style="list-style-type: none"> <li>• considered the GPR as part of the bi-annual Group risk review.</li> </ul>
<p><b>Energy balancing</b></p> <p>There is a risk that we fail to effectively predict or respond to fluctuations in energy supply and are unable to balance supply and customer demand, or appropriately respond to energy supply constraints, due to external, system or human factors leading to adverse impacts on customers and/or the public.</p>	<p><b>Scenario 3</b> – Significant energy disruption event occurring in the UK during winter, due to limited generation supply. Increased working capital and potential regulatory penalties. US event included in the risk cluster testing.</p>	<p><b>The Board reviewed and discussed:</b></p> <ul style="list-style-type: none"> <li>• a detailed update on our winter preparedness and the risk of a disruption of energy event;</li> <li>• US energy supply adequacy in advance of the winter period; and</li> <li>• a bi-annual Group risk review.</li> </ul>
<p><b>Significant safety or environmental event</b></p> <p>There is a risk of a catastrophic asset or bulk power system failure due to a critical asset or system failure, substandard operational performance or inadequate maintenance, over-pressurisation, leak-prone pipe, third-party damage, undetected system anomalies leading to a significant public or employee safety and/or environmental event.</p>	<p><b>Scenario 4</b> – A significant process safety gas pipeline failure in the US. Estimated net (post insurance) cost impact of \$2.2 billion. Included in the risk cluster testing.</p>	<p><b>The Board reviewed and evaluated the current safety performance of the Group including:</b></p> <ul style="list-style-type: none"> <li>• during the bi-annual risk review;</li> <li>• discussing the US businesses;</li> <li>• discussing the UK businesses; and</li> <li>• discussing leading safety indicators.</li> </ul> <p><b>The Safety &amp; Sustainability Committee:</b></p> <ul style="list-style-type: none"> <li>• was provided with an update on safety performance for each business unit;</li> <li>• considered an annual update on the significant safety or environmental event GPR; and</li> <li>• reviewed and discussed the IFA fire investigation, with support from the Finance Committee, which discussed progress of the associated insurance claim.</li> </ul>
<p><b>Major projects delivery</b></p> <p>There is a risk that we are unable to deliver on our major capital project programme within the required timeframes.</p>	<p><b>Scenario 5</b> – Inability to deliver our major capital projects. Significant regulatory fines and impact on returns.</p>	<p>This is a new risk that has been reviewed by the Board and Committees as part of its Board bi-annual risk review, with risk description and rationale of delivering projects of significant strategic importance alongside external challenges.</p>

Principal risk	Viability scenario	Matters considered and overseen by the Board
<p><b>Satisfactory regulatory outcomes</b></p> <p>There is a risk that we fail to influence future energy policies and secure satisfactory regulatory agreements because of a lack of insight or unsuccessful negotiations leading to poor regulatory outcomes, energy policies that negatively impact our operations, impacts on market prices, reduced financial performance, fines/penalties, increased costs to remain compliant and/or reputational damage.</p>	<p><b>Scenario 6</b> – Poor outcome of future US rate case filings, and low performance under RIIO-T2 and RIIO-ED2.</p> <p>\$550 million cost impact from lower average allowed RoE in US rate cases.</p> <p>£780 million cost impact from nil outperformance under RIIO-T2 and RIIO-ED2.</p>	<p><b>The Board received updates and discussed:</b></p> <ul style="list-style-type: none"> <li>the UK ED regulatory strategy; and</li> <li>the RIIO-ED2 Draft Determination in November 2022 and the Final Determination in January 2023.</li> </ul> <p><b>In addition, enrichment sessions were held on:</b></p> <ul style="list-style-type: none"> <li>US Utility Regulation (FERC, Massachusetts and New York; regulatory frameworks);</li> <li>the UK regulatory landscape and regulatory framework; and</li> <li>the future outlook of ESO.</li> </ul>
<p><b>Climate change</b></p> <p>There is a risk that we fail to identify and/or deliver upon actions necessary to meet our climate change targets and enable the wider energy transition because of poor management of threats and opportunities associated with mitigating climate change, leading to a reputational impact of not enabling the Group to meet its net zero commitments.</p>	<p><b>Scenario 7</b> – Not meeting our net zero commitments.</p> <p>No immediate financial impact but various (significant) reputational impacts were considered.</p>	<p><b>The Board, supported by the Safety &amp; Sustainability Committee discussed sustainability metrics and strategy to reflect and track our impact and progress. Discussions included those in relation to:</b></p> <ul style="list-style-type: none"> <li>the bi-annual review of climate change GPR which included emerging issues such as the challenge of connecting significant volumes of renewable capacity, alignment to our Clean Energy Vision and adaptation plans based on changing weather patterns;</li> <li>considered key ESG topics, such as the energy transition and climate change, and associated expectations of investors. On the recommendation of the Safety &amp; Sustainability Committee, the Board approved the CTP which was subject to a shareholder non-binding advisory vote at the 2022 AGM;</li> <li>TCFD disclosures;</li> <li>our GHG emissions performance; and</li> <li>our participation in COP27 in November.</li> </ul>
<p><b>Political and societal expectations and perceptions</b></p> <p>There is a risk that we do not position ourselves appropriately to political and societal expectations because of a failure to proactively monitor the landscape (particularly the energy trilemma), or, to anticipate and respond to changes, leading to reputational damage, political intervention, threats to the Company's licence to operate and our ability to achieve our objectives.</p>	<p><b>Scenario 8</b> – Increased political–societal pressures associated with a prolonged cost of living crisis.</p> <p>Financial impact with prevention of inflation driven bill increases.</p>	<p><b>The Board received updates on:</b></p> <ul style="list-style-type: none"> <li>each of our business units;</li> <li>our participation in COP27, both in the lead up and the key messages from the event;</li> <li>the UK and US political landscape;</li> <li>the UK and US energy markets, amidst rising gas prices;</li> <li>the deep dive on energy policy environment in UK; and</li> <li>the short-, medium- and long-term impacts of war in Ukraine.</li> </ul>
<p><b>Capability and leadership</b></p> <p>There is a risk that we do not have capability and leadership capacity because of ineffective succession planning and recruitment into leadership roles, leading to failure to deliver on our vision and strategy.</p>	n/a	<p><b>The Board and the People &amp; Governance Committee are focused on capability and leadership particularly at the senior level. Accordingly, it:</b></p> <ul style="list-style-type: none"> <li>considered the structure, size and composition of the Board and its Committees and approved any changes including to remit and membership, as well as any Board changes;</li> <li>reviewed Board succession planning;</li> <li>reviewed leadership talent and succession planning for the Group Executive Committee; and</li> <li>approved an updated Board DEI Policy and refreshed our Board skills matrix.</li> </ul>
<p><b>Financing our business</b></p> <p>There is a risk that we are unable to efficiently fund our business as a result of a lack of access to a wide pool of investors, market volatility, unsatisfactory regulatory outcomes or unsatisfactory financial performance of the business, leading to a lack of access to capital, impacting our ability to achieve our strategic objectives.</p>	<p><b>Scenario 9</b> – High and volatile interest rates.</p> <p>Highly volatile interest rates in both the US and UK, resulting in an increase in our cost of debt for the next five years.</p> <p>The impact on our future financing arrangements from other significant risk events is considered as part of our risk cluster scenario.</p>	<p><b>The Board:</b></p> <ul style="list-style-type: none"> <li>due to the significant increase forecast in the capital investment programme of the Group and the associated funding requirements, alongside the more volatile macro-economic environment, agreed to recognise a standalone financing our business GPR.</li> </ul> <p><b>The Finance Committee:</b></p> <ul style="list-style-type: none"> <li>regularly reviews and oversees key financial risks, including liquidity, refinancing and counterparty risks on behalf of the Board.</li> </ul>



# Our business units

## 1 UK Electricity Transmission (UK ET)



National Grid's T-pylons – the first new design for pylons in 100 years – salute the iconic Flying Scotsman on its centenary. 116 of the T-pylons are being built as part of the Hinkley Connection Project in the UK, enabling the delivery of infrastructure required for the transition to net zero.

### Highlights

UK ET has performed strongly in 2022/23, investing £1.3 billion in the network as part of our £9 billion R100-T2 promise. Our strong financial performance was delivered in the context of challenging headwinds with strains on our supply chain in the post-COVID period, further supply chain disruption caused by the war in Ukraine and energy price-led inflation. Throughout this period we have maintained focus on safety, customers, reliability and innovation as well as driving forward the net zero energy agenda.

Following extensive engagement with Ofgem and the Department of Energy Security & Net Zero (DESNZ), the UK Government has asked UK ET to deliver 17 major new projects to connect low-carbon power to the network. These projects will be delivered under the Regulator's ASTI framework and are a vital part of achieving the Government's ambition of connecting 50 GW of offshore wind by 2030. Delivery will require UK ET to double its annual capital investment over the next decade. This work represents the largest transmission growth the UK has seen for 50 years. It will help deliver net zero and lower consumer bills and underpin the UK's energy security by boosting home-grown renewable energy generation. National Grid has established a new business unit for the delivery of this work – SI. The new business unit will be focused on overcoming the key challenges of planning, consenting and supply chain to ensure we are able to deliver the infrastructure required for the transition to net zero, will work closely with UK ET under a single Ofgem licence and will remain part of the National Grid Electricity Transmission plc statutory entity.

### Enable the energy transition for all

We are embarking on transformation of the electricity grid at a pace and scale never seen before connecting nearly three times the existing customer generation capacity connected to the network. Reform is needed if we are to add the capacity and connect customers to the network at the rate required to fully decarbonise the power system by 2035 and support the electrification of the wider economy.

We are committed to reducing SF<sub>6</sub> emissions from our operations by 50% by 2030 and removing all SF<sub>6</sub> gas from electrical assets by 2050. We are collaborating closely with suppliers and universities on innovative retrofill feasibility works. We commissioned a world-first pilot project at our Richborough 400 kV substation. This replaced 764 kg of SF<sub>6</sub> with an alternative gas, delivering a 13% reduction in our total SF<sub>6</sub> holding at that site. We have identified further assets of the same design and will work to explore the feasibility of extending this approach. We're working to re-wire London on our LPT2 project and have commenced enabling works for a totally SF<sub>6</sub>-free substation.

### Deliver for our customers efficiently

We have maintained our world-class record for reliability. We had only 7 MWh of energy not supplied in 2022/23 in spite of a record-breaking hot summer, including the two hottest days on record in the UK. This represents the best performance since 2015/16 and equates to 99.99997% network reliability.

The current market arrangements, coupled with the existing regulatory and industry frameworks, means it takes too long to connect new customers. We are continuing to take concrete actions to both rationalise the connections pipeline and drive industry reforms. Following discussions with DESNZ, Ofgem and the ESO, Ofgem has agreed arrangements that will allow us to optimise connections contracts and reduce connection timescales for some existing customers. In parallel, a one-off amnesty has been introduced to allow customers to leave the pipeline with little or no termination cost. We are also working with other industry stakeholders on 'queue management' reforms. If approved by Ofgem, this would give the ESO the ability to remove stalled or delayed projects from the connection pipeline if customers do not meet agreed connection milestones.

### Grow our organisational capability

We are mobilising to build a new UK ET Control Centre and replace our national control system with state-of-the-art digital technology. Full design of the required capabilities is under way. The new control centre will play a critical role in future-proofing the network, providing long-term resilience as new infrastructure is added and the independent FSO is established. Construction of the control centre will commence within the next 12 months.

### Empower colleagues for great performance

We hold ourselves to the very highest standards for safety, proactively considering it in everything we do. Amongst our directly employed colleagues this is reflected in a LTIFR well below our target of 0.10, which we consider to be world class. Whilst down on 2021/22, a persistent injury rate amongst our contractors has resulted in us exceeding that 0.10 target overall. Therefore, as we look forward to our growing workbook, we have increased the scope, remit and engagement in our Contractor Safety Forum, embarked on a focus on the severity of incidents and launched a unified Behavioural Safety programme which will run throughout 2023/24, giving our leaders and teams new tools and techniques for coaching for safety.

### Looking ahead

Network owners across the globe are all looking to reduce their carbon emissions. UK ET will play a pivotal role leading the transition to renewable energy, lowering consumer bills and boosting the UK's energy security by ensuring we use homegrown, renewable energy generation. We have a clear roadmap to delivering the low-carbon energy revolution. However, meeting the UK Government's targets will require DESNZ and Ofgem to stimulate skills, capabilities and supply chain capacity, and ensure we have the right regulatory frameworks in place to fund the infrastructure needed. Our work to deliver the energy network of the future has already started.

## 3

## UK Electricity System Operator (ESO)

### Highlights

As GB's electricity system operator, we are at the heart of the energy transition, operating one of the fastest and most reliable decarbonising networks in the world. This year, the illegal and appalling invasion of Ukraine saw us prepare even harder for winter, taking enhanced measures to ensure security of supply. We delivered our Winter Outlook Report early, negotiated contingency coal contracts and deployed a world first Demand Flexibility Service that has been used by thousands of British businesses and consumers. We also delivered the HND, a first-of-its-kind, integrated approach for connecting 23 GW of offshore wind to GB, taking GB a step closer to a decarbonised electricity system by 2035.

## 2

## UK Electricity Distribution (UK ED)



UK ED engineers undergoing training on maintaining pole mounted equipment.

## Highlights

We completed the RIIO-ED1 price control period in a position of strength, outperforming the majority of our RIIO-ED1 business plan commitments. In the current year, we beat our targets for customer minutes lost and customer interruptions by 26% and 27% respectively, and our business carbon footprint has reduced by 42% over RIIO-ED1. UK ED has also been listed as one of Europe's Climate Leaders for 2022 in the Financial Times-Statista list.

With our fuel poverty schemes, we have supported over 24,000 fuel poor customers, leading to an estimated annual saving of £20.6 million. Our annual community fund was increased from £1.0 million to £3.8 million, benefitting over 390,000 people.

Our business plan for RIIO-ED1 was ambitious and industry-leading. Building on this impressive platform, we have listened to our stakeholders and will deliver an even bolder set of stretching commitments for RIIO-ED2, driving a smart, sustainable energy revolution for the communities we serve. Following our successful delivery of RIIO-ED1, we are now setting ourselves for the challenges of RIIO-ED2 to ensure we deliver upon our holistic plans for the future.

## Enable the energy transition for all

In the transition to decarbonisation, UK ED is committed to incorporating the use of lower-cost alternatives such as using flexibility services as opposed to conventional reinforcement helping to manage constraints on the network and save customers money. In 2022/23, we have procured 154 MW of flexibility services via our flexible power brand. Across all flexibility zones (including procurements in previous years), this impacts approximately 1.34 million customers and defers £43 million of reinforcement.

## Looking ahead

In July 2022, the UK Government introduced its Energy Bill in Parliament. The Bill sets out the legislation to enable the creation of the FSO in 2024 – and the ESO will be at the heart of this organisation. The FSO will be an expert, impartial and operationally independent public corporation with responsibilities across both the electricity and gas systems and the ability to expand its remit to additional energy vectors when needed. The FSO will be able to drive progress towards net zero, deliver value for consumers, improve whole energy system decision making and support energy security. As the Bill continues its progress through Parliament, we will continue to work closely with Government, the regulator and industry stakeholders.

In addition, we have worked with the regulator to agree changes to our licence through the Access and Forward-Looking Charges Significant Code Review, allowing networks to pick up a greater proportion of reinforcement costs for both demand and generation, which will enable all customers to get connected at a lower cost.

Over the past few years we have been addressing the provision of EV charging at motorway service stations and on trunk roads. This came together in our Take Charge innovation project, which demonstrated new technology to deliver the electrical capacity to power 80 rapid EV chargers at a single service station site in a compact modular format. It is an innovative solution that brings the electrical capacity of a small town to each motorway service station. The project won the Utility Week Disruptor of the Year Award for 2022.



## Deliver for our customers efficiently

UK ED has a proven track record of customer service which is reflected in our excellent performance against the Broad Measure of Customer Satisfaction results, scoring 8.99 out of 10 overall.

We have streamlined our connections process making it quicker and easier for customers to connect EV chargers and heat pumps. We have received and processed over 30,000 domestic EV charger and heat pump applications in the current year, of which 98% were approved within two working days. To deal with increasing volumes of low-carbon technology connections, a new digital tool has been launched that allows customers to apply online to connect domestic EV chargers. This tool will also be extended to heat pumps and solar installations.



## Grow our organisational capability

In this rapidly changing energy sector, we have continued to build on our organisational capabilities. During RIIO-ED1 we transformed our network to accommodate a significant growth of distributed generation, with the capability to connect 53 GW of generation on a network originally designed for 14 GW of demand. Energy storage is increasingly being used alongside generation to store excess power and release it to the network at a later point in time. A total 11.3 GW distributed generation is connected to our network to date, of which 7.5 GW is low-carbon generation.



## Empower colleagues for great performance

In response to employee engagement survey results, we developed an action plan which earmarked 37 areas of improvement and so far we have completed 24 of them. Our training journey during the year is one such example. We significantly increased our training programmes and currently have around 700 employees on formal training programmes, including those we are training ahead of need to ensure we are ready for the future.

A 'Safe to Say' initiative was launched with the aim of encouraging colleagues to use their voice and speak up without fear, being empowered to raise issues, flag concerns and offer ideas.

## Looking ahead

For RIIO-ED2, Ofgem has allowed UK ED £5.9 billion as a five-year investment package to deliver services for our stakeholders, the largest amount of any DNO in the UK. Over the course of RIIO-ED2, we will prepare the network to cater for up to 1.5 million additional EVs, 600,000 heat pumps and a significant increase in renewable energy. We have committed that by 2028 we will avoid over £94 million of network reinforcement costs by operating our networks more flexibly.

We will ensure that the energy transition is just and fair. This includes offering 600,000 smart energy action plans for vulnerable customers each year. We will double our fuel poverty support, to help deliver over £60 million of savings for 113,000 fuel poor customers over the next five years.

4

## New England



Massachusetts gas operations team reached its 2022 leak-prone pipe replacement goal, delivering over 142 miles (229 kilometres) of leak-prone pipe replacement.

### Highlights

We are leading the clean energy transition in hundreds of cities and towns across the region from Boston to the Berkshires and Cape Cod to Newburyport. This year, we served our customers with a broad range of affordability and sustainability needs, as we continue to play a critical role in their daily lives providing safe and reliable gas and electricity services.

In 2022, we completed the sale of our Rhode Island business to PPL and are incredibly proud of our teams who navigated the complex set of requirements to ensure a smooth transition.

New England faced several storms this fiscal year, where temperatures dropped to record lows. One pre-Christmas storm resulted in over 140,000 customers without service, from heavy rains and wind gusts up to 60 mph in some areas. Our crews worked around the clock to get all customers back in service by the holiday.

### Enable the energy transition for all

We have set out goals to reduce our GHG emissions to achieve net zero by 2050 or sooner, in line with the goals of Massachusetts and the region. Specifically, we plan to interconnect more distributed generation each year – connecting more solar and wind energy onto the grid. As at 31 March 2023, we exceeded our target of 164 MW in distributed energy resources, with a final result of 167.6 MW connected. In 2022, we replaced over 142 miles (229 kilometres) of older leak-prone metal pipe in favour of new, plastic pipe to improve the safety of the delivery network, reduce the amount of methane, a powerful GHG, escaping the system and enable long-term infrastructure to deliver fossil-free fuel sources, such as green hydrogen and biogas.

We are leading the way in EV adoption and energy-efficiency programmes – for both our customers and colleagues, which will help reach our Group-wide goal of electrifying 100% of our light-duty vehicle fleet by 2030 – expanding our commitment to the EV transition. Recently, the Massachusetts state regulator also approved a \$206 million filing to expand EV charging, enabling up to 32,000 additional charging ports, including targeted components for low-income households and environmental justice communities.

### Deliver for our customers efficiently

Our storm response efforts demonstrate our ability to meet reliability goals and our customers' needs, and these restoration actions are consistently recognised by the Edison Electric Institute (EEI). We are embracing new technology, such as the Fault Location, Isolation and Service Restoration (FLISR) digital programme that gives us greater visibility into outages and automatically reroutes power to reduce impact to customers, making the system more resilient. We regularly monitor standard reliability metrics to improve our storm response and restore power.

On the gas side of the business, responding to emergency leaks is equally as vital, and we continue to improve our response times.

Our Mass Save 2022 – 2024 energy-efficiency plan includes commitments to increase equitable outcomes for customers, such as expanded benefits for dozens of designated communities within our service territory.

We launched our Grid for Good volunteer and giving programme, and are strengthening the social impact programmes for the communities we serve. Our Winter Customer Savings Initiative promoted programmes that help customers reduce their energy use, manage bills and secure available energy assistance, including helping tens of thousands of customers sign up for available discount rates. In the US, we also committed \$17 million to support our communities through the winter and have disbursed \$3 million in Massachusetts to date providing energy assistance to thousands of residential customers and small businesses, as well as helping to address food insecurity across the Commonwealth.

### Grow our organisational capability

We aim to achieve our operational expenditure and capital expenditure efficiency goals with the aid of programmes such as gas business enablement and digital maturity projects.

In December 2022, our Massachusetts Phase 3 EV proposal was approved by the MADPU, which will build upon our first two EV market development programmes by providing offerings to meet the diverse transportation needs of all our customers.

Since we all play a role in managing bill impacts, taking a customer-centric lens is vital, and focusing on customer satisfaction and affordability will be engrained in everything we do.

### Empower colleagues for great performance

Investing in our people is as important as investments in our infrastructure. We need to develop skills and capabilities for our colleagues to achieve the clean, fair and affordable energy system of the future. This means fostering a culture of safety where everyone arrives home at the end of the day in the same condition that they left. We strive for a generative safety culture with a high level of engagement in safety protocol, where we are all invested in looking out for ourselves and others. Sadly, in May 2022, we lost a valued colleague working in our electric business. The fatal incident occurred when a highly skilled colleague, along with a crew of five, were re-cabling a transformer that was feeding a residential building.

Together we commit to embedding operational excellence in everything we do and mobilising our most critical asset – our employees – to become the utility of the future.

### Looking ahead

As we set our sights on the future, we're proud to announce the launch of our first geothermal pilot in Lowell, Massachusetts, drawing heat from below the Earth's surface to generate renewable energy. Throughout the Commonwealth, we are also experiencing a wave of key stakeholder changes, including a new Governor, MADPU Chair, MADPU Commissioner and others, and this introduces a certain amount of uncertainty and risk as we navigate a critical period for our industry and the Company, as well as opportunity for new partnership and exploration.

We are excited for the clean energy future as we continue to move towards achieving net zero, by decarbonising our gas and electric networks and building a smarter, stronger and cleaner energy future for all our customers and communities. We are proud of our ambition to be a leader contributing to one of the most innovative energy regions in the country.



## 5 New York



National Grid emergency crews work in Buffalo, New York, on 25 December 2022.

### Highlights

As a leader in the clean energy transition, in one of the top states in the US driving that change, we continued to embrace our responsibility to deliver both electricity and natural gas in a safe, reliable and affordable way to over 4 million customers.

To accomplish this, we have invested billions of dollars in our energy infrastructure over the past several years and have ambitious plans to continue investing in our networks, to meet customer and community commitments now and in the future. In addition, we filed a three-year rate proposal with the Public Service Commission (PSC) for our downstate gas companies – KEDNY and KEDLI. Approval of this plan will help ensure that we continue to deliver safe, reliable, and affordable service to our 1.9 million gas customers in Metro NYC and Long Island.

In New York, we faced several challenging storms this year, including the historic winter Storm Elliott in Buffalo that began the week leading into the Christmas weekend and brought multi-day blizzard conditions. A field force of more than 3,100 workers was mobilised, including mutual assistance from other states and Canada, to help restore more than 110,000 customers in Western New York. Crews faced whiteout conditions and wind gusts that reached 80 mph.

After the deadly blizzard, the Company contributed a total of \$500,000 to charitable organisations with programmes directly benefitting people impacted by the storm. The funds also helped to establish programmes to support community resilience during future emergencies, and the corporate contribution was matched by the National Grid Foundation for a total of \$1 million.

Although the Buffalo storm was considered a 'once-in-a-generation' storm, our New York business has remained focused on emergency planning and restoration and received an Emergency Response Award for our storm restoration efforts from the Edison Electric Institute (EEI).



### Enable the energy transition for all

As we work toward our Group-wide goal of net zero by 2050, we are also building sustainable solutions to provide alternatives to fossil fuel and to ensure a carbon-free energy supply.

Some of the programmes underway include our Future of Heat pilots that explore methane-free fuel sources, such as green hydrogen, and RNG, and will take advantage of existing networks to support customer needs. In addition, we continue to connect distributed generation resources to our network – a total of 286 MW of supply to date. Thanks to the dedication and focus of many of our colleagues, we are meeting our commitments to replace leak-prone pipes state-wide. The Newtown Creek Renewable Natural Gas Demonstration Project is operational and will help meet New York City's environmental goals while at the same time fostering discussion in the industry among energy providers, policyholders and other stakeholders.

Rudy Wynter, New York President, participated in the White House Electrification Summit this past December, which explored how electrification could help the US meet its climate and equity goals. Our Grid Modernization New York team has set an ambitious target to accelerate FLISR installations in New York, which will introduce a more reliable and robust system. This technology gives us the ability to remotely respond to system interruptions in real time.



### Deliver for our customers efficiently

Our teams are focused on helping our customers, not only by providing safe and reliable services, but also by improving their experience with us. To this end, our Gas team performed above average in responding to leaks.

Across our service territory – as throughout the US – customers are feeling the pinch of inflationary pressures and high energy costs. Our colleagues have provided in-person bill pay support at community events to address affordability. Additionally, we have shown up in our communities under our Project C programme umbrella, providing over 27,000 hours of volunteer time, which included more than 2,000 colleagues being involved in our second annual Day of Service in 2022; and even more efforts are underway throughout the year.



### Grow our organisational capability

In preparing for the clean energy transition, we must equip our current colleagues with the necessary training, tools and skills that will make it happen, in addition to attracting new employees who see themselves in the promise of clean, fair and affordable.

Technology continues to play a critical role in our ability to meet customers' needs. With the help of our IT teams, we must apply more resources and focus to address the challenges we face in an increasingly digitalised industry.



### Empower colleagues for great performance

The leadership team across New York is committed to the Company-wide Stand Up for Safety campaign to support each other and create a safety-focused environment, regardless of where we show up to work. As part of that focus, New York colleagues are reporting more quality near-miss/good-catch incidents than before, with a trajectory of reaching defined targets ahead of plan.

We are also committed to our DEI hiring goals and are optimistic that New York will meet our ambition of increasing the diversity of our workforce with future new hires.

### Looking ahead

Our New York team is focused on clean energy solutions throughout the state. Exciting innovations such as Smart Path Connect – an ambitious transmission project that is unlocking the potential of renewable electricity for our customers – and HyGrid – a gas decarbonisation project on Long Island that will demonstrate the use of hydrogen in our networks – are two such examples.

We released our Electric Highways Study in autumn 2022, which was co-authored by CALSTART, RMI, Geotab, and Stable Auto. That study prepared the company to apply for and win a \$1 million grant from the U.S. Department of Energy to conduct a similar study and plan for medium and heavy-duty corridor charging. That study and plan will be a first-of-its-kind blueprint for fast-charging deployment for commercial vehicles in the Northeast across Maine, Massachusetts, New Hampshire, Vermont, Rhode Island, Connecticut, New York, Pennsylvania and New Jersey. All these projects illustrate important accomplishments that contribute to our vision to eliminate fossil fuels from our US gas and electric systems by 2050 with clean energy hubs across our service territories. This is a decades-long journey, and the New York business is making significant steps toward getting there.



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## National Grid Ventures (NGV)

### Highlights

NGV is focused on competitive markets across the UK and US. Its portfolio includes electricity interconnectors, LNG storage and regasification, large-scale renewable generation, conventional generation and competitive transmission.

NGV businesses have performed well in 2022/23 with NSL completing its first full year of operation and IFA1 returning to service after a fire in September 2021. IFA's return takes National Grid's interconnector portfolio to 6.4 GW, and to a GB record level of 8.4 GW with the addition of Moyle, East-West and ElecLink.

In May 2022, Ofgem approved National Grid's request to make early payments to consumers of £200 million over the course of the next two years, as part of the regulatory regime for electricity interconnectors.

In September, in the US, we launched the Northeast Clean Energy Vision, supporting the development of clean energy hubs across the Northeast and featuring a hub development on Long Island. The vision builds on the plan to be fossil free across the gas and electricity systems by 2050. NGV also successfully joined the consortium led by the New York State Energy Research and Development Authority (NYSERDA), and submitted a hydrogen hub concept paper for Department of Energy (DOE) funding.

### Enable the energy transition for all

NGV operates a broad mix of energy assets and businesses in the UK and US, with the primary objective of accelerating the development of a clean energy future. It is the leading developer and operator of interconnectors, which are high-voltage subsea cables that enable the UK to share excess electricity, such as wind, solar and hydro generation, with neighbouring markets. NGV operates five interconnectors in the UK, connecting GB with the Netherlands, Belgium, Norway and two connections to France. A sixth interconnector to Denmark (Viking Link) is under construction.

NGV also operates and maintains the world-class Isle of Grain LNG facility offering a 1 million m<sup>3</sup> LNG storage capacity to market.

National Grid Renewables has begun onsite construction of Wild Springs 128 MW Solar Energy Project in South Dakota. In Texas, Noble Solar and Storage – a 275 MW solar and 125 MW energy storage project – commenced commercial operation, and construction has started on the Copperhead Solar & Storage Project totalling 150 MW of solar and 100 MW of energy storage.

### Deliver for our customers efficiently

In the UK, in January 2023, NGV's interconnector portfolio resumed full capacity at 6.4 GW as IFA returned to service following a fire in September 2021. The 2 GW site saw a brand-new converter hall built in just 16 months, following close collaboration with suppliers and 24/7 shift patterns.

Progress also continues at the Grain LNG terminal to expand its storage capacity from 1 million m<sup>3</sup> to 1.2 million m<sup>3</sup> by 2025. The project has created 800+ jobs during construction, supporting the development of future engineers.

In the US, in 2022, NGV partnered with RWE to acquire a seabed lease to develop offshore wind in the New York-New Jersey Bight, with the potential to host 3 GW of capacity. In January, the joint venture called Community Offshore Wind submitted a proposal for the delivery of clean energy from offshore wind to NYSERDA, totalling 1.3 GW. Over the last year, through this partnership, numerous community investments have been made across the region, including the improvement of marine ecosystems on Long Island and providing over 30,000 meals of fresh, local seafood to food banks across New York. In total, Community Offshore Wind has donated more than 400 volunteer hours and attended 50 community events across the areas it will serve.

National Grid Renewables has also pledged \$1 million to two communities in Ohio through its 274 MW Yellowbud Solar Project, giving back to the communities in which it operates.

### Grow our organisational capability

The NGV business continues to grow, increasing its headcount from 979 to 1,140.

People growth has been significant in business development and commercial roles.

### Empower colleagues for great performance

NGV actively encourages everyone to speak out about safety, with an emphasis on reporting at all levels. In the latest safety culture survey, released in January, 83% of NGV colleagues responded, resulting in a Group-leading score of 6.81 compared with 6.76 in 2022, indicating good progress towards a 'Proactive Safety Culture'. Improvements have been made across the board in terms of leadership and employee engagement, and highlighted the continued need for conversations around safety and what we're learning.

In May 2022, NGV launched the IFA Health Hub to provide round-the-clock facilities to workers through the IFA recovery programme including recreational space, a gym and healthy meals. The project was driven by recent research into mental health and wellbeing in construction, with an aim of developing a standard for future construction projects.

### Looking ahead

In the UK, the Viking Link interconnector is due to become operational in early 2024, expanding NGV's portfolio of interconnector capacity by 1.4 GW to a total of 7.8 GW. Once complete, the 477 mile (767 kilometre) subsea cable will connect the electricity systems of GB and Denmark.

In December, Ofgem confirmed that it will take forward two of our projects – LionLink to the Netherlands and Nautilus to Belgium – as part of its MPI pilot scheme. As the next phase in offshore interconnection, MPIs will enable multiple wind farms to connect to multiple countries around the North Sea, reducing the level of infrastructure required while strengthening security of supply.

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## Other activities

### Highlights

Other activities primarily relate to NGP, the corporate investment and innovation arm of National Grid, as well as UK property, insurance and corporate activities.

In UK Land and Property, following the successful sale of its 50% interest in St William (joint venture with Berkeley Group) at the end of 2021/22, it completed the sale of a further 15 sites to Berkeley at the beginning of 2022/23, realising approximately £200 million profit.

In 2022/23 NGP invested more than \$72 million in start-ups, including four new portfolio companies and 12 follow-on rounds. It also saw four portfolio exits and now invests in 36 companies and four limited partner investments in strategic venture funds. Since its launch in 2018 it has introduced more than 230 start-up technologies to National Grid and 80% of its existing portfolio has strategic engagements with National Grid business units.

In September, National Grid announced the sale of its 26.25% minority ownership in Millennium Pipeline Company for approximately \$552 million in cash proceeds.

# Our commitment to being a responsible business

Our 2020 RBC outlines our commitments to being a responsible business across five pillars: **the environment, our communities, our people, the economy and our governance.** The RBC was shaped by our stakeholders, through a materiality assessment and the application of a quantitative Total Societal Impact methodology. Our annual RBR reports on our progress against these commitments over the past year.



A clean, fair and affordable energy future  
Responsible Business Report 2020

You can find the RBC and latest RBR here, which provide more details on all of the below.  
[nationalgrid.com/responsibility](https://nationalgrid.com/responsibility)

## The environment

**7,245**  
Scope 1 and 2 emissions (ktCO<sub>2</sub>e)

**27,879**  
Scope 3 emissions (ktCO<sub>2</sub>e)

**278**  
SF<sub>6</sub> emissions (ktCO<sub>2</sub>e)


While continuing to manage our environmental performance responsibly, we have emphasised the need to facilitate the transition to a clean energy system, to achieve net zero by 2050 for our Scope 1, 2 and 3 emissions and continue to improve the biodiversity of land that we own.

We are making progress against our CTP although, as we have seen in recent years, progress to our 2030 and 2050 goals will not be linear. Our Scope 1 and 2 emissions have reduced 7.5% this year, due to a reduction in emissions from our Long Island Power Generation business, combined with our continued leak-prone pipe replacement programme, focus on SF<sub>6</sub> leakage and EV replacement programme. We are on track to meet our Scope 1 and 2 long-term targets, but are reliant on the continued development of supporting policies and regulation.

Our Scope 3 emissions have risen slightly this year due to higher than projected energy usage and electricity carbon intensity in our US regions.

We have started to deliver a clean energy future and as part of this we are supporting the delivery of accelerated onshore infrastructure needed to reach net zero, including the 17 ASTI projects which will connect low-carbon power to our networks in the UK. These projects will be delivered by our new SI business unit and are vital to the UK government's ambition for 50 GW of offshore wind by 2030.

We believe our most material impacts on biodiversity, and where we can have a positive impact on nature, are on the land we own and when we are delivering new infrastructure projects, both onshore and offshore. We are part of the Blue Recovery Leaders Group which is led by the Wildfowl and Wetlands Trust and brings together leading organisations to identify, develop and deliver pioneering projects to help create 100,000 hectares of new and restored wetlands across the UK to help fight the climate, nature and wellbeing crisis.

 Further details on our progress against our environmental commitments can be found on **pages 10 – 20** of the RBR

## Our communities

**£65 million**  
energy support fund pledged in the UK and US

**60,096**  
number of volunteering hours from National Grid employees

**99.9%**  
average reliability across our network  
(breakdown available on page 16)


While continuing to place public safety and network reliability and resilience as top priorities, we are focusing in particular on the affordability and fairness of our service to the community, and developing the skills of young people from some of the more deprived communities where we operate to help us in the clean energy transition.

Over the past year, we have continued to engage with our communities to ensure we work to meet their needs for energy security, reliability, affordability and a fair transition, through our Grid for Good programme and Project C in New York.

To support increasing energy costs, we have delivered a £65 million Energy Support Fund – pledging £50 million in the UK and \$17 million in the US. The majority of this funding is for non-profit organisations on the front line of the energy crisis which have been designated as our charity partners. This support fund is helping to provide emergency financial relief to households that are using pre-payment energy meters, funding energy-efficiency measures to help lower bills over the longer term, providing advisory services for households which need help with energy bills and debts, and more.

We continue to partner with a number of charity organisations such as Citizens Advice and Red Cross, and encourage our colleagues to volunteer in the community.

We have also enhanced our support for communities in areas close to our major infrastructure projects. In the UK, this has included community grant applications and support with the creation of environmental centres, as well as other additional community benefits. In the US, we support the National Grid Foundation, a non-profit charitable organisation that awards grants to non-profit organisations focused on educational and environmental challenges.

 Further details can be found on **pages 21 – 28** of the RBR

## Our people

**81%**

employment engagement

**71%**

'Safe to Say' in Grid:voice

While continuing to ensure our people are kept safe and healthy, and that work conditions meet their expectations, we are stepping up our efforts in relation to DEI – focusing on fairness in pay and opportunity, transparency, and training around issues of gender and ethnicity.

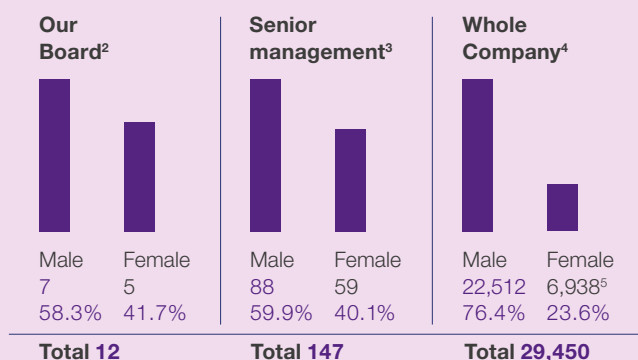
The safety and wellbeing of our people is a top priority for every one of us at National Grid, as well as creating a truly diverse, equitable and inclusive culture, where our workforce reflects the diversity of the communities we serve and all our colleagues feel comfortable to bring their whole selves to work.

We review gender and ethnicity pay gaps annually in both the UK and US. As a result of sustained focus over many years, our UK base gender pay gap continues to be minimal, and we have shown progress with pay and incentive gaps for ethnically diverse employees. The strong representation of women (40.1%) in our senior leadership population drives these figures. We will continue to make progress within our operational teams where women are still a significant minority. In the US, our base gender and ethnicity pay gaps have improved since last year. We will continue to focus on ensuring fair pay across all our employees, focusing our efforts on ensuring that we develop a diverse workforce representative of the communities that we serve at every level. Further details around reward can be found on page 34 of the RBR.

Grid:voice allows colleagues to share their views on what it's like to work here, so that we can understand what we do well and where we can improve. Our Employee Resource Groups (ERGs) play a key role in helping us to provide a sense of community and achieve our DEI aspirations. We invest in around five training days per employee, see page 35 of the RBR for more detail.

The gender demographic table below shows the breakdown in numbers of employees by gender at different levels of the organisation; see footnotes on page 35.\*

### Gender demographic as at 31 March 2023



Our policy is that people who identify as having a disability should be given full and fair consideration for all vacancies against the requirements for the role. Where possible, we make reasonable accommodations and provide additional resources for employees who identify as having a disability. We are committed to equal opportunity in recruitment, training, promotion and career development for all colleagues, including those with disabilities.

## The economy

**62%**

supply chain carbon reduction

**75%**

EU Taxonomy aligned Group turnover

We are continuing to develop our infrastructure, invest in innovation that benefits our customers and wider society, and pay the right tax, as well as working to influence our supply chain to focus on diversity and responsible behaviour.

Our economic contribution to society comes primarily through the delivery of safe and reliable energy but also through our role as an employer, a tax contributor, a business partner and community supporter. The direct, indirect and induced economic impact of our investments in 2022/23 supported 247,000 jobs in our regions.

Our approach to tax is part of our commitment to being a responsible business and is guided by our values. We are committed to a coherent and transparent tax strategy and recognise our economic role in society in doing this, as set out on pages 63 – 65. Our total tax contribution for 2022/23 is £4,060 million (2021/22: £3,719 million).

During the year, we invested £7.7 billion in our energy infrastructure. This investment allows us to continue to provide secure and reliable supplies and underpin the wider success of the economy.

As part of our Green Financing Framework, we have issued £1.1 billion worth of green bonds from our UK and US electricity businesses, funding projects to enable the transition to clean energy.

We recognise that our supply chain is an extension of how we operate. We should use our position of influence to create positive impact on a wider scale, rather than simply through direct operations.

National Grid's operations, payments to suppliers, and payments of wages to workers supported £29 billion in gross value added contributions to GDP in the US and the UK in 2022/23.

We require all suppliers to acknowledge our Supplier Code of Conduct as a condition of doing business. We expect our suppliers to comply with all applicable local, state, federal, national and international laws, and to adhere to the principles outlined. This includes the UK Bribery Act 2010 and the US Foreign Corrupt Practices Act 1977, the Principles of the United Nations Global Compact, the International Labour Organization minimum standards, the Ethical Trading Initiative Base Code and the US Trafficking and Violence Protection Act 2000. We encourage all our suppliers to be compliant with the Modern Slavery Act 2015 and to publish a Statement, regardless of whether this is a legal requirement.

In the UK, we remain an accredited Living Wage Foundation employer and the real Living Wage is a requirement for all suppliers based in the UK. We undertake a Living Wage review each year to ensure continued alignment.

We operate a Global Supplier Diversity Policy which outlines our commitments to DEI. We expect our suppliers to extend this to their own supply chains. We are working to create an inclusive and diverse supply chain by raising awareness of the existence and capabilities of small and diverse suppliers, and being proactive in identifying sourcing and subcontracting opportunities for small and diverse suppliers.



Further details can be found on pages 40 – 44 of the RBR

# Our governance

**97%**  
ethics training

**98%**  
anti-bribery and corruption training

We will hold ourselves accountable on these commitments and ensure that stakeholder voices continue to be heard at the highest level, and that they influence our approach. We will ensure we maintain the highest standards of ethical conduct.

We regard the potential for bribery and corruption as a significant risk to the business and have established policies and governance that set and monitor our approach to preventing financial crimes, fraud, bribery and corruption, including our Code of Ethics. We have a Group-wide framework of controls designed to prevent and detect bribery. Our Code of Ethics sets out the standards and behaviours we expect from all employees to meet our values of ‘do the right thing’, ‘find a better way’ and ‘make it happen’, and is governed by our executive Group ERCC. We provide e-learning on the Code of Ethics as well as on conflicts of interest.

To ensure compliance with the UK Bribery Act 2010 and other relevant legislation, we undertake a fraud and bribery risk assessment across the Company on an annual basis to identify higher-risk areas (such as system access controls, supplier fraud and potential conflicts of interest) and make sure adequate policies – such as our Anti-Financial Crimes Policy, which applies to all colleagues and those working on our behalf – and procedures are in place to address them.

Ethics and Business Conduct reports are discussed quarterly at the ERCC and twice a year at Audit & Risk Committee. Serious issues that meet our escalation criteria are reported in line with our escalation process through the Global Chief Risk Officer, Group General Counsel & Company Secretary, Audit & Risk Committee and the Board as appropriate. All cases are investigated promptly and where appropriate, acted upon, including ensuring any lessons learnt are communicated across the business.

### Human rights

Respect for human rights is incorporated into our employment practices and our values, which are integral to our Code of Ethics. This is vital in maintaining our reputation as an ethical company that our stakeholders want to do business with and that our employees want to work for. Although we do not have a separate human rights or modern slavery and human trafficking policy, we cover these issues through related policies and procedures relating to diversity, anti-discrimination, privacy and equal opportunity, etc. and our Supplier Code of Conduct integrates human rights into the way we interact with our supply chain. Further details are on page 236 of this report. We also publish an annual Modern Slavery Statement.

### Whistleblowing

We have a confidential internal helpline and an external ‘Speak-up’ helpline that is available at all times in all the regions where we operate. Our policies make it clear that we will protect anonymity, support and protect whistleblowers, and any form of retaliation will not be tolerated. This is discussed by the Audit & Risk Committee (see page 85).

 Further details can be found on pages 45 – 48 of the RBR

## Non-financial information statement

This section provides information as required by regulation in relation to:

### Environmental matters

 page 33  
pages 38 – 52

### Human rights

 page 35  
page 236

### Our employees

 pages 14 – 17  
page 34  
page 77  
page 236

### Anti-corruption and anti-bribery

 page 35

### Social matters

 pages 33 – 35

In addition, other information describing the business relationships, products and services which are likely to cause adverse impacts in relation to the matters above can be found as follows:

### Business model

 pages 4 – 5

### People & Governance Committee report

 pages 80 – 82

### KPIs

 pages 14 – 17

### Safety & Sustainability Committee report

 page 88

### Our stakeholders

 pages 36 – 37

### TCFD

 pages 38 – 51

### Audit & Risk Committee report

 pages 83 – 87

### Risks

 pages 18 – 24

Further details can be found in our RBR as follows:

Further reading	Environment	Social matters and employees	Anti-corruption and bribery	Human rights
<b>Our policies and due diligence</b>	10 – 20	21 – 44	45, 47 – 48	42, 47 – 48
<b>Outcomes</b>	54 – 57	54 – 57	54 – 57	44, 54 – 57

### \*Gender demographic table footnotes

1. We have included information relating to subsidiary directors, in accordance with the Companies Act 2006 (Strategic Report and Directors’ Report) Regulations 2013. ‘Senior management’ is defined as those managers who are at the same level, or one level below, the Group Executive Committee. It also includes those who are Directors of subsidiaries, or who have responsibility for planning, directing or controlling the activities of the Group, or a strategically significant part of the Group, and are employees of the Group.
2. ‘Board’ refers to members as defined on the Company website.
3. ‘Senior management’ refers to subsidiary Directors as well as the Senior Leadership Group.
4. In scope are active, permanent employees. Band A–F, Staff, NEDs, NGR and UK ED.
5. Out of scope are non-employees, interns and UK Gas Transmission and Metering and Rhode Island.



# Our stakeholders

Effective engagement with our stakeholders is key to successful achievement of the Group's strategy in the long term.

## How we engage as a company

Most engagement with key stakeholders is carried out by management teams and takes place at business level. Directors also engage with stakeholders on a regular basis. Reporting mechanisms are in place to collate feedback and output from our engagement and enable a flow of this information to the Board and its Committees, to inform decision making.

An overview of business-level engagement and outcomes is regularly reported to the Board or appropriate Committees.

The cadence and content of such reports to the Board are considered bi-annually as part of the forward business review by the Chair, Chief Executive and Group General Counsel & Company Secretary, to ensure sufficient consideration is given to pertinent matters and affected stakeholders and colleagues from across the business during the year.



Further reading

### Section 172(1) Statement

Pages 74 – 75 comprise our Section 172(1) Statement.

The following should also be read in conjunction with this statement:

- Pages 72 – 73 set out key matters considered by the Board during the year.
- Pages 77 – 79 describe the Board's workforce engagement strategy.

## Overview

## Interests

## Engagement

## Outcomes



## Customers

Customers are at the heart of what we do in all parts of our business. Regular and effective engagement with them is key to us delivering what they need and expect from us, from large-scale connections in support of net zero, to domestic connections in homes and businesses within the communities we serve.

Our customer base is broad and their interests are wide-ranging. All, however, expect efficient and reliable service, and transparency and fairness in how we work with them. They expect us to understand them and their challenges, and how our activities can impact their lives and businesses.

In addition to ongoing day-to-day engagement, senior leaders in our UK ET business regularly meet with customers to discuss strategic priorities and specific connection projects. We also survey our customers at key points in the connections process and use their feedback to drive process improvements.

Within UK ED, our customer panel meets quarterly, attended by the UK ED President and other UK ED Directors. Members represent our customers and key stakeholder groups and challenge us on current and future plans. This year, surgeries between meetings focused on areas including social obligations and connections.

In the US, our engagement in the past year included community board meetings, chamber meetings and one-to-one meetings with customers and community groups, with a particular focus on affordability and the transition to clean energy.

Engagement with UK ET customers has helped identify the fundamental change needed within the connections landscape and is driving both our short-term work to support customer needs, and the wider regulatory reform needed to enable net zero.

Within UK ED, our Connections Customers Steering Group covers a broad range of connections-related topics and is feeding into our Major Connections Strategy for RIIO-ED2.

In the US, we have increased our visibility in communities and have been invited to present our plans to city councils. Our engagement has enabled us to explore renewable technology options with industrial customers.



## Investors

We engage with both equity and debt investors around strategy and performance, to keep them informed and to enable them to hold us to account. They play a vital role in enabling us to deliver the investment required for a clean, affordable and secure energy future.

Investors are interested in our financial and operational performance, which act as key indicators of our ability to provide attractive returns. There is also increased interest in our ESG targets and reporting to provide assurance that investments are sustainable, ethical and responsible.

Our Investor Relations, Company Secretariat and Treasury teams, as well as senior management, engage with our investors regularly. Alongside this ongoing engagement, key events across the year included:

- our first RBR webinar, where our Chief Executive and Chief Sustainability Officer discussed ESG performance against our RBC targets;
- a US event hosted by our New York business leaders, CFO and Chief Strategy Officer to outline our new Clean Energy Vision and growth opportunities in the US;
- half-year and full-year financial results presentations and roadshows;
- deal-specific debt engagement for select bond issuances during the year;
- continuing our 'Grid guide to ESG' investor series with events on community involvement and modernising our networks in Massachusetts; and
- our hybrid AGM (see page 78)

Our engagement in 2022/23 has helped investors better understand our investment case and has provided visibility on our strategy, performance and financial strength.

The results of an independent investor perception study helped us shape our future engagement, including new topic ideas for our 'Grid Guide to ESG' investor series and future investor events.



## Colleagues

We listen to and engage extensively with our colleagues through a number of channels and processes. This enables us to understand their needs and requirements and build a culture that will help to drive our performance, shape our plans and develop a skilled and motivated workforce.

Colleague interests are wide-ranging. They have an obvious interest in company performance and what this means for them individually, but also want to understand, and play a part in shaping, our role in the industry and broader energy transition.

We have had an extensive programme of colleague engagement over the past year via all-hands calls with our Chief Executive, town hall sessions within business units and functions, email, Yammer, focused colleague listening sessions, interaction through our many ERGs and our latest annual employee engagement survey, Grid:voice. These channels provide colleagues with information and a chance for two-way dialogue. The Board receives regular updates on employee matters via the Chief Executive and Chief People Officer.

We also engage regularly with colleagues through their representatives in various trade unions in both the UK and US on a range of matters including pay and terms and conditions of employment.

This year, 81% of colleagues took part in our Grid:voice survey, with an employee engagement index score of 81% favourable. This was unchanged from the previous year but remains nine points higher than external benchmarks.

Our ERGs play a key role in helping us to achieve our DEI aspirations whilst providing a sense of community to help everyone feel comfortable to bring their whole selves to work. We have 16 highly active and visible ERGs – eight in the US, four in the UK and four global. Our ERG membership now stands at 7,890 unique members. We have just launched a brand new, global ERG called Inspire focusing on social economic barriers and challenges faced by many colleagues.



## Suppliers and contractors

Engagement with this group of stakeholders – listening to their ideas and working in partnership – is important to help us collectively find better and more innovative ways of delivering our commitments. We engage both strategically and tactically across a range of topics and projects.

In addition to day-to-day commercial interests, our suppliers and contractors would like greater forward visibility and contractual commitment over a longer horizon to help them build capacity and support innovation to meet our needs, often with a focus on sustainability and what the collective path to net zero looks like.

We engage extensively and often with our supply chain in the course of our business. We also have structured quarterly engagement with strategic suppliers and contractors, complemented by senior-level engagements to foster collaboration and discuss strategic issues facing the sector. In the past year, our engagement has included:

- surveys and one-to-one interviews to develop our Supply Chain Charter;
- engagement through the Supply Chain Sustainability School (UK) and Sustainable Supply Chain Alliance (US);
- a UK Supply Chain CEO-level forum to inform Government and Ofgem on changes required for connecting offshore wind; and
- involvement in the Procurement Skills Accord (part of Energy & Utility Skills) and Utilities Against Slavery.

Our engagement has ensured our supply chain has an understanding of the key themes and priorities related to our business, and that they are able to provide input across a range of initiatives, allowing us to work with them to manage continuity of supply in the shorter-term and shape our approach to future challenges, such as the acceleration of network investment for net zero. Their input has helped shape the development of the ASTI framework in the UK.



## Communities and governments

We exist to serve our communities with the energy they need. We serve customers within our communities across the UK and US. We work closely with state, federal, national, local and EU governments to create the policy frameworks required to deliver our stakeholders' energy needs.

Our communities need us to deliver energy security, reliability and affordability, whilst minimising the impact our operations have on them. Communities and government are focused on the cost of living, economic recovery and ensuring a fair transition to net zero.

In the US, we are engaging with community stakeholders and members of the public to understand what 'fair' means from different perspectives and how it should shape our plans.

In both the UK and US, we engage extensively to actively support local communities impacted by our construction activities.

Our engagement with government has included executive-level advocacy for the passage of the IRA in the US, and participation in the White House Electrification Summit. In the UK, we engage government through bilateral meetings, parliamentary round tables and Select Committee participation in support of the clean energy transition.

Following our role as principal partner at COP26, we again had a significant presence at COP27.

Our engagement is informing our plans for how to deliver a fair transition.

This year our Grid for Good activities have played an important role in supporting economic growth and upskilling of communities through our outreach programmes, focusing on areas experiencing the highest levels of socio-economic disadvantage.

We have helped shape legislation, including the US IRA and UK Energy Bill and have ensured the development of network infrastructure is recognised as a key enabler of net zero.



## Regulators

We engage with our regulators on an almost daily basis, whether on rate cases in the US and price controls in the UK, or to help set policy and shape future regulatory frameworks that allow our customers, stakeholders and ourselves to meet objectives.

Our regulators' interests are based around a common theme, whether UK or US, state or federal – to protect the interests of consumers and to ensure affordable, safe, secure and reliable access to the energy we provide, whilst protecting the natural environment.

Engagement with regulators in both the UK and US is frequent and comprehensive.

In New York and New England, we work with state regulators to set strategy and achieve positive financial and policy outcomes to meet customer priorities and deliver shareholder value. This has included semi-annual updates to the New York Public Service Commission (PSC) Chair and Commissioners by our New York President, and engagement with the Massachusetts Department of Public Utilities (MADPU) Commissioners and senior staff, related to rate cases and other regulatory filings.

We also have regular engagement with FERC Commissioners and staff.

In the UK, our engagement through bi-laterals, round tables, workshops and site visits has included finalising UK ED's price control and helping to shape Ofgem's new ASTI framework.

Our engagement has led to a range of positive outcomes in the past year, including:

- a successful outcome to the UK ED price control review – RII0-ED2;
- approvals for Phase 1 & 2 CLCPA Transmission filings;
- the approval of two MPI pilot projects; and
- approvals related to our clean energy objectives including incremental grid modernisation investment, a programme to promote clean transportation, and advanced metering infrastructure investment.

# Task Force on Climate-related Financial Disclosures (TCFD)

**At National Grid, we recognise that addressing climate change as a result of GHG emissions is the defining challenge of the 21st century. Our networks and operations play a central role in the transition of the energy system in the jurisdictions we operate in. We are supportive of the 2016 Paris Agreement's long-term goal to keep the rise in global average temperature by 2100 to well below 2°C above pre-industrial levels, and to pursue efforts to limit the increase to 1.5°C.**

We have supported the recommendations of the TCFD since its initial publication. By helping us to understand the impacts of climate change on our business, the framework has benefitted us directly by: shaping our governance structure to effectively oversee risks and opportunities; aligning our business strategy to identify and seize transitional opportunities; developing values of sustainability in our corporate culture; and embedding climate change into our risk management framework, which has engaged our lines of defence to manage the associated risks.

In this year's disclosure we have fully complied with the Financial Conduct Authority (FCA) Listing Rule 9.8.6R(b). Our climate-related financial disclosures are considered to be consistent with the TCFD's four recommendations and 11 recommended disclosures, as illustrated in the index to the right. In addition, we have taken steps this year to enhance our disclosure by adopting the TCFD's additional implementation guidance and energy sector-specific guidance.

In the following sections, we set out our response to the TCFD's four core recommendations – governance, strategy, risk management, and metrics and targets – in line with the recommendations and guidance described above. We have also included a summary of our Climate Transition Plan (CTP), which sets out the strategic action plans and mechanisms we have in place to realise our net zero commitments.

## TCFD index

The following index navigates between our disclosures and the TCFD's recommendations and recommended disclosures:

### 1. Governance

#### Disclose the organisation's governance around climate-related risks and opportunities

- Describe the board's oversight of climate-related risks and opportunities: page 39
- Describe management's role in assessing and managing climate-related risks and opportunities: page 40

### 2. Strategy

#### Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning where such information is material

- Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term: pages 47 – 50
- Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning: pages 47 – 50
- Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario: pages 41 – 42

### 3. Risk management

#### Disclose how the organisation identifies, assesses and manages climate-related risks

- Describe the organisation's processes for identifying and assessing climate-related risks: pages 45 – 46
- Describe the organisation's processes for managing climate-related risks: page 46
- Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management: pages 44 – 45

### 4. Metrics and targets

#### Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material

- Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process: page 51
- Describe Scope 1, Scope 2 and, if appropriate, Scope 3 GHG emissions, and the related risks: page 51, 47 – 49
- Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets: page 51

# 1. Governance

## The Board of Directors sets and leads the Company's climate-related strategy and goals and has oversight of climate-related risks and opportunities impacting the Group.

The Board delegates elements of its responsibility to its various Committees as described on the right. Members of the Board bring a variety of skills and experience, including expertise in driving sustainability and climate change matters. Several members of the Board have specific experience of this, including Martha Wyrsh, who joined the Board in September 2021. Martha brings extensive knowledge and experience around climate related issues through her experience as CEO of a major international gas transmission business as well as leading the growth and development of Vestas' renewable energy business in the US. See pages 70 – 71 for information on the individual experience of Board members and page 80 for the specific skills attributed to the Board, including sustainability and climate change.

The Chair of the Safety & Sustainability Committee provided updates to the Board throughout the year on matters discussed at the Committee meetings, including updates on progress against goals and targets for addressing climate-related issues. The Board receives a CEO report at each meeting which includes tracking of climate change metrics. Following recommendation by the Safety & Sustainability Committee and the Audit & Risk Committee, the Board approved the 2022/23 RBR at their May 2023 meeting.

In addition, following Audit & Risk Committee review and recommendation, the Board also approved the following 2022/23 sustainability publications:

- This TCFD report
- The EU Taxonomy report
- The Global Reporting Initiative (GRI) index
- The Sustainability Accounting Standards Board (SASB) report

Throughout the year, the Board undertook strategy deep dives through which consideration was given to the energy transition and climate change, and the impact of these on the Group's strategy.

The remit of the Board and its Committees under our governance framework, as well as the number of times they meet, are set out on pages 69 – 71 of the Corporate Governance Report. Terms of Reference for the Board and its Committees are available at [nationalgrid.com/about-us/corporate-information/corporate-governance](https://nationalgrid.com/about-us/corporate-information/corporate-governance)

Refer to the table on the right for the climate related issues that were discussed through the year.

## Climate governance

Committee	How does it monitor climate-related issues?	What it did in the year
 <p><b>Safety &amp; Sustainability Committee</b></p>	Responsible for assessing and monitoring Group's environmental sustainability strategy and performance, and considering potential climate change risks and opportunities. This includes overseeing progress being made against our net zero aims, and other responsible business targets.	<ul style="list-style-type: none"> <li>• Approved the Group's first CTP at its May 2022 meeting (approved by shareholders in July 2022).</li> <li>• Reviewed the RBR and TCFD draft content at its May 2023 meeting.</li> <li>• Received a demonstration of the Group's Climate Change Risk Tool (CCRT), including how this is used to manage the Group's climate change strategy.</li> <li>• Reviewed and challenged the Group's performance against its RBC targets, including net zero commitments.</li> <li>• Undertook a deep dive into the Group's climate change GPR.</li> </ul>
 <p><b>Audit &amp; Risk Committee</b></p>	Oversight of non-financial risk management, disclosures and assurance, including our RBR, TCFD disclosures and reporting in line with leading ESG frameworks such as SASB, GRI and the EU Taxonomy.	<ul style="list-style-type: none"> <li>• Reviewed the 2022/23 draft TCFD, EU Taxonomy, GRI and SASB content, as well as the RBR assurance outcomes, at its May 2023 meeting.</li> <li>• Briefed on readiness initiatives and planning for imminent mandatory corporate sustainability reporting regimes.</li> <li>• Oversaw and monitored the progress of data governance and controls improvement initiatives on non-financial information, with a focus on climate change KPIs.</li> </ul>
 <p><b>Remuneration Committee</b></p>	<p>Considers and approves how ESG targets are incorporated into our long- and short-term incentive arrangements and plans for Executive Directors and the Senior Leadership Group.</p> <p>The Committee also reviews workforce remuneration and monitors related policies, satisfying itself that incentives and rewards are aligned to National Grid's strategy, culture and long-term sustainable success.</p>	<ul style="list-style-type: none"> <li>• Approved the new Directors' Remuneration Policy (approved by shareholders in July 2022). The proportion of incentives linked to ESG and progress against climate-related targets have increased.</li> </ul> <p> <b>More information on the remuneration incentives can be found on page 91</b></p>
 <p><b>People &amp; Governance Committee</b></p>	Oversees a diverse succession pipeline to ensure the right people to deliver our strategy and net zero ambition are being attracted and retained. As part of ensuring the Board comprises the skills and experience needed for the future needs of the business, the Committee regularly reviews current and future Board composition.	<ul style="list-style-type: none"> <li>• Refreshed the Board skills matrix by including broader sustainability-specific skills, and assessed Board members accordingly.</li> <li>• To see the spread of Board skills including sustainability and climate change see page 80.</li> </ul>
 <p><b>Finance Committee</b></p>	Oversees our financing strategy and considers the financial impact of environmental factors on our credit metrics and relevant considerations with regards to debt investors, pension and insurance strategy.	<ul style="list-style-type: none"> <li>• Reviewed a paper on Green and Sustainable Financing strategy, and continues to drive good practice in this area.</li> <li>• Monitored the issuance of green bonds under the Group's Green Financing Framework. This includes the €750 million green bond issued by National Grid plc in January 2023 and the \$500 million green bond issued by Niagara Mohawk Power Corporation in September 2022. More details can be found in our 2022/23 Green Financing Report.</li> </ul>



# Task Force on Climate-related Financial Disclosures (TCFD) continued

## Management's role

The Board delegates to management responsibility for asset investment and maintenance planning, implementation of the net zero strategy and overseeing the development and achievement of RBC commitments and targets. Management is also responsible on a day-to-day basis for the management of climate-related risks and opportunities faced by the Group and for delivering the roadmaps to achieve the net zero strategy set by the Board.

Sustainability-focused roles have been embedded across the Group to ensure that in addition to the top-down focus, there is also a bottom-up approach to addressing climate-related issues.

Our Chief Sustainability Officer heads a team of subject matter experts who lead the implementation of the RBC across the Group by working closely with business units to ensure their strategy and operations align with our decarbonisation and climate resilience targets. The Sustainability team sets the Group sustainability strategy, modelling potential climate scenarios, working with the Science Based Targets initiative team. In addition, they have developed the Group's CTP, and continue to monitor the developments from the UK's Transition Plan Taskforce (TPT) to ensure it adheres to future disclosure standards and meets the needs of our stakeholders.

To address physical risks, the Chief Engineer's Office leads the development of climate adaptation frameworks across the Group to ensure there is a consistent approach to assess the vulnerability of our energy assets and to guide strategic investment planning. Further delegation is given to our core operational businesses including business unit Presidents who are accountable for delivering the net zero roadmaps for their businesses. Corporate Affairs; Group Finance; Sustainability; Safety & Health; and People teams support the businesses in achieving their net zero pathways.

The Group Finance function continues to build out its sustainability capabilities through its ESG Centre of Excellence, Investor Relations, Group Treasury and Procurement teams. These teams are responsible for setting the Group sustainability voluntary and mandatory reporting strategy and ensuring credible and reliable internal and external reporting of sustainability data. This is achieved via implementing robust systems, processes, controls and assurance; attracting green investment and engaging with debt and equity investors on how to enhance messaging around climate-related issues; and engaging with, and supporting, suppliers on their decarbonisation journey.

## How management is informed about climate-related issues

Climate-related issues are flagged via the Enterprise Risk Management (ERM) process described in the next section. We also have a monthly business review process whereby more granular targets are embedded in business unit performance contracts. In addition, we engage in regular discussions with regulators, policymakers and other key stakeholders, which helps inform management on key horizon risks.

## Other relevant forums

**TCFD working group**, led by the Group Finance ESG Centre of Excellence, comprises representatives from Sustainability, Corporate Strategy, Group Risk and Company Secretariat. This group oversees progress against the TCFD recommendations and the publication of our annual disclosure.

**The Responsible Business steering group**, chaired by the Chief Sustainability Officer, provides oversight of the integration of responsible business into National Grid, including the development of ESG targets and future ESG strategy.

## Business Unit Green Financing

**Committees** chaired by the Group Treasurer, provide governance over our Green Financing Programme and approve the publication of our Green Financing Report, which provides an analysis of how we utilised the proceeds from our portfolio of green bonds and their environmental impact.

## Climate management committees

Below, we outline the key management committees responsible for monitoring and driving our sustainability performance and managing climate-specific risks and opportunities:

### Group Executive Committee

Our Group Executive Committee oversees the safety, operational and financial performance of the Company and to execute the strategy, business objectives and targets established by the Board. It is supported by a number of other management committees:



## 2. Strategy

The work we have done to better understand our climate-related risks and opportunities have helped inform the strategic decisions we have made in recent years.

These include the strategic pivot towards electricity that was announced in March 2021, for example:

- acquisition of UK ED (previously WPD) in June 2021;
- the sale of our Rhode Island electricity and gas business in May 2022; and
- the sale of a majority equity interest in the UK Gas Transmission and Metering business in January 2023.

This has shifted our portfolio of Group assets from c.60% electricity in 2021 to c.70% electricity on completion of all three transactions. In addition, the Group has continued to grow its investment in our NGV business, which includes our interconnectors business in the UK and National Grid Renewables and fossil fuel generation business in the US. This further enhances our role in delivering the energy transition, whilst helping to ensure energy security and sustainable affordability in the jurisdictions we operate in.

### Scenario analysis

Scenario analysis to 2050 and beyond guides our strategic and financial planning with respect to climate change. Scenarios consider the potential physical impacts to the Group of average global temperature increases of 2°C and 4°C by 2100 from pre-industrial levels.

We also consider potential transitional impacts of scenarios of average global temperature increases of 1.5°C in keeping with the Paris Agreement.

Our most recent analysis executed in 2021/22 modelled three scenarios: slow progress, orderly transition and acceleration. They are stretching and plausible futures for our society built using different assumptions across variables, as demonstrated by the graphic below. We tested the resilience of our business strategy against these different transition scenarios, focusing our transition risks on the scenarios associated with lower temperature rises, and our physical risks on the scenarios with higher temperature rises.

Our scenarios are updated every two to three years, with the next update due in 2023/24.

### Transition scenario modelling

Our transition scenarios are developed using driving forces which we monitor regularly as part of our risk management process and annually in our strategic horizon scan. In our analysis, we do not make a judgement on the likelihood of any one scenario relative to others; and by design, the analysed scenarios do not encompass all possible future pathways and their associated risks. There are limitations within the scope of our modelling, for example available data across other sectors, but to minimise this impact we have utilised a wide range of resources and compared our results with external scenarios.

### Transition insights

Whilst current global climate policies and actions suggest a lower than 4°C scenario, a 4°C scenario was still modelled in line with our approach to scenario modelling outlined below. The transition impact to the Group is most significant in scenarios resulting in a lower degree of warming given the increased action required. The following five transition insights are therefore most relevant to a 2°C (or lower) scenario:

#### 1. Urgent collective action required across society

To reach net zero requires new policies and technology development. Action is required by a wide range of stakeholders in the industry as a result of the public expectations on climate change; there is a push for new policies, action and government and state targets in the regions we operate. Our ability to meet our own net zero commitments rely on these and is covered in more detail in the risk and opportunities section.

#### 2. Retaining consumer buy-in will be key

To reach net zero, consumers can drive domestic heating and transport decarbonisation by switching to low-carbon alternatives such as EVs and heat pumps. EVs are expected to represent 90% of the global fleet by 2050, and increased consumer demand such as this will drive additional growth and investment in our electric network businesses.

#### 3. Electricity use and share of final demand will increase

Grids are expected to grow to deliver an increase of 50 – 160% of current demand by 2050 due to fuel switching, with both heating and road transport sectors decarbonising. This will drive additional growth and investment in our electric network whilst resulting in lower demand for our gas network.

#### 4. Energy supply structure will shift

There will be a shift to power generation from renewable sources, most notably wind and solar. Offshore wind is expected to triple in output from 2030 to 2050 and connecting this could drive significant growth opportunities for our businesses.

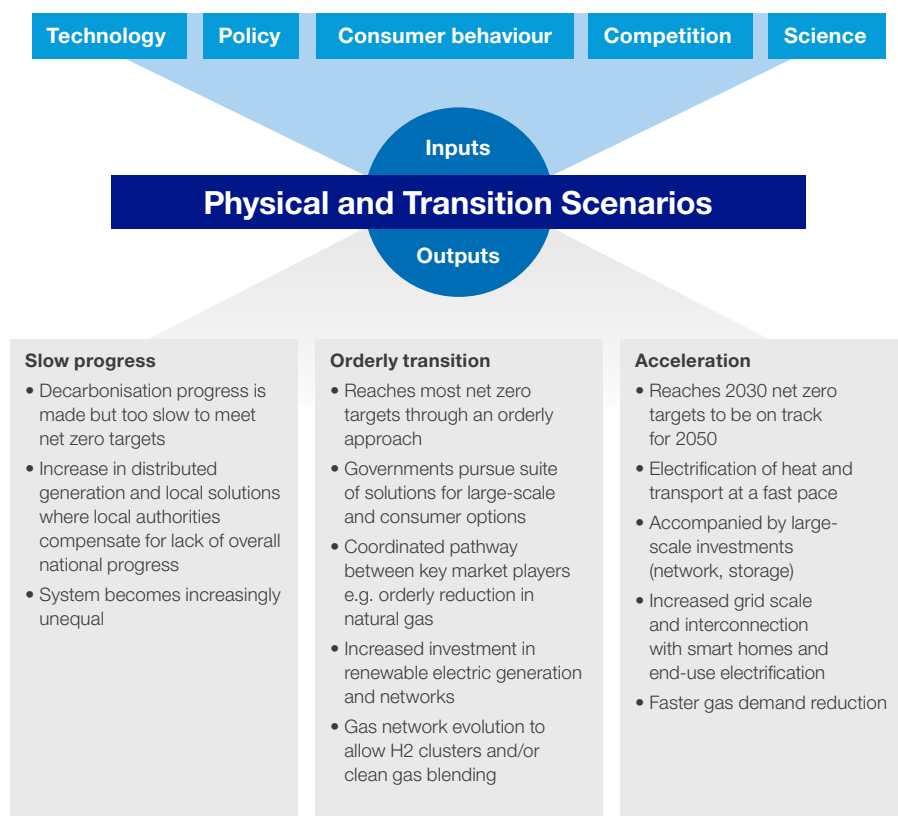
#### 5. Pathways will adapt to global and local realities

For example, the US Northeast region is expected to import hydrogen to support decarbonisation, but in the UK, blue hydrogen and carbon capture, utilisation and storage (CCUS) may develop due to policy and geology. It is important that our businesses monitor and adapt to these differing pathways in their respective geographies.

**None of the transition scenarios tested threaten the resilience of the Group and we are in a strong position to adapt our portfolio to maximise the opportunities of the energy transition.**

Further detail on the transition risks and opportunities identified in our scenario analysis, including estimated qualitative and quantitative impacts where applicable, can be found on pages 47 – 50.

### Our scenarios



## Task Force on Climate-related Financial Disclosures (TCFD) continued

### Physical modelling

Climate hazard	Definition and threshold	Potential change by 2070s (4°C scenario)	Confidence level
<b>Coastal flooding</b>	Frequency of occurrence of coastal flood and future impacts due to sea level rise	Significant increase in frequency	Medium
<b>River flooding</b>	Frequency of occurrence of river flooding due to over 25mm (1 inch) daily rainfall	Significant increase in frequency	Medium
<b>Storms (compound events)</b>	Number of days per year when high winds are above 34 m/s (76 mph) and high rainfall is above over 25 mm (1 inch) on the same day. Displayed separately for summer (March to August) and winter (September to February) seasons	Summer – slight increase in frequency Winter – no change in frequency, but potential increase in intensity	Low
<b>High wind</b>	Number of days per year when maximum daily wind gust is above 34 m/s (76 mph)	Decrease or no change in frequency, but increase in intensity	Low
<b>Lightning</b>	Number of lightning events	Increase in frequency	Low
<b>High temperatures</b>	Number of days per year when maximum daily temperature is above 30°C (86°F) in the UK and 95°F (35°C) in the US	Significant increase in frequency	High
<b>Low temperatures</b>	Number of days per year when maximum temperature is below 0°C (32°F) in the UK and 10°F (-12°C) in the US	Decrease in frequency	High
<b>Freeze-thaw cycles</b>	Number of days per year when maximum daily temperature is above 0°C (32°F) and minimum daily temperature is below 0°C (32°F) in the same day	Significant decrease	High
<b>Heatwaves</b>	Number of times per year when maximum daily temperature is above 30°C (90°F) and minimum daily temperatures is above 20°C (70°F) for three consecutive days	Significant increase in frequency	High

For physical risks, the climate hazards from our 4°C scenario analysis are summarised above. The climate hazard data is sourced from the relevant national climate assessments (NCA4 in the US and UKCP18 in the UK). The scenario data are modelled using the IPCC's Representative Concentration Pathway (RCP) scenarios of RCP8.5 (4°C) and RCP4.5 (2°C). The modelling covers decade timeframes; 2030s, 2040s, 2050s and 2070s, with comparison to a baseline of 1981 – 2010 in the UK and 1976 – 2005 in the US.

#### Physical insights

Most hazards are projected to increase in frequency in the future, with high temperatures and coastal flooding of particular concern across consistent areas of our operations. In most cases the level of risk is greater in a 4°C scenario than a 2°C scenario.

We are continuing to progress our physical risk analysis and asset vulnerability to inform our strategic planning and investment choices. By developing our Climate Change Risk Tool (CCRT) in-house with a dedicated geospatial capability we can create bespoke physical risk assessments for each business based on the specific asset and hazard data that is material to their operations, while still retaining a Group strategic view of our overall business.

Our current risk assessment shows the risk to our existing asset portfolio, but we are now aligning this with data relating to our new infrastructure investments so that our cumulative picture of risk will begin to change.

The next version of our risk assessment in 2023/24 will incorporate UK ED and National Grid Renewables.

### Climate Vulnerability Assessment (CVA)

**Our group-wide CVA began in December 2022, led by a steering group of senior leaders from each of our businesses, and a working group with business representatives from our engineering, resilience and policy teams.**

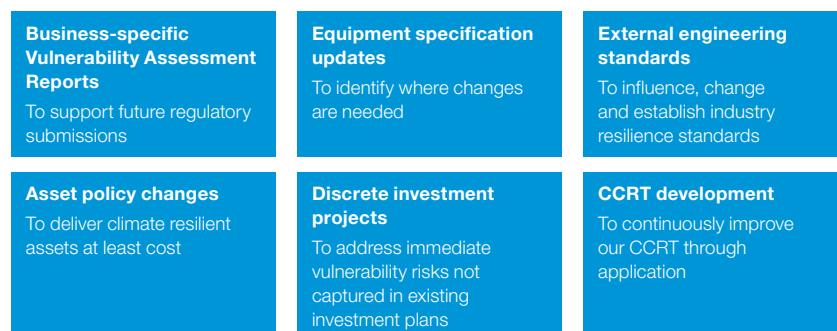
It is a phased programme of activity which will deliver an adaptation plan to address assets with the highest resilience risk. Sharing best practice with other energy utilities informs our approach and the ongoing development of our industry-leading Climate Change Risk Tool.

Our CVA is a risk-based approach where each business unit identifies critical assets which are physically vulnerable to climate hazards. The process accounts for existing adaptation plans such as storm hardening programmes and leverages the latest climate science. Adaptations will be local and developed by each business unit.

#### Process



#### Outputs



## Progress against our CTP

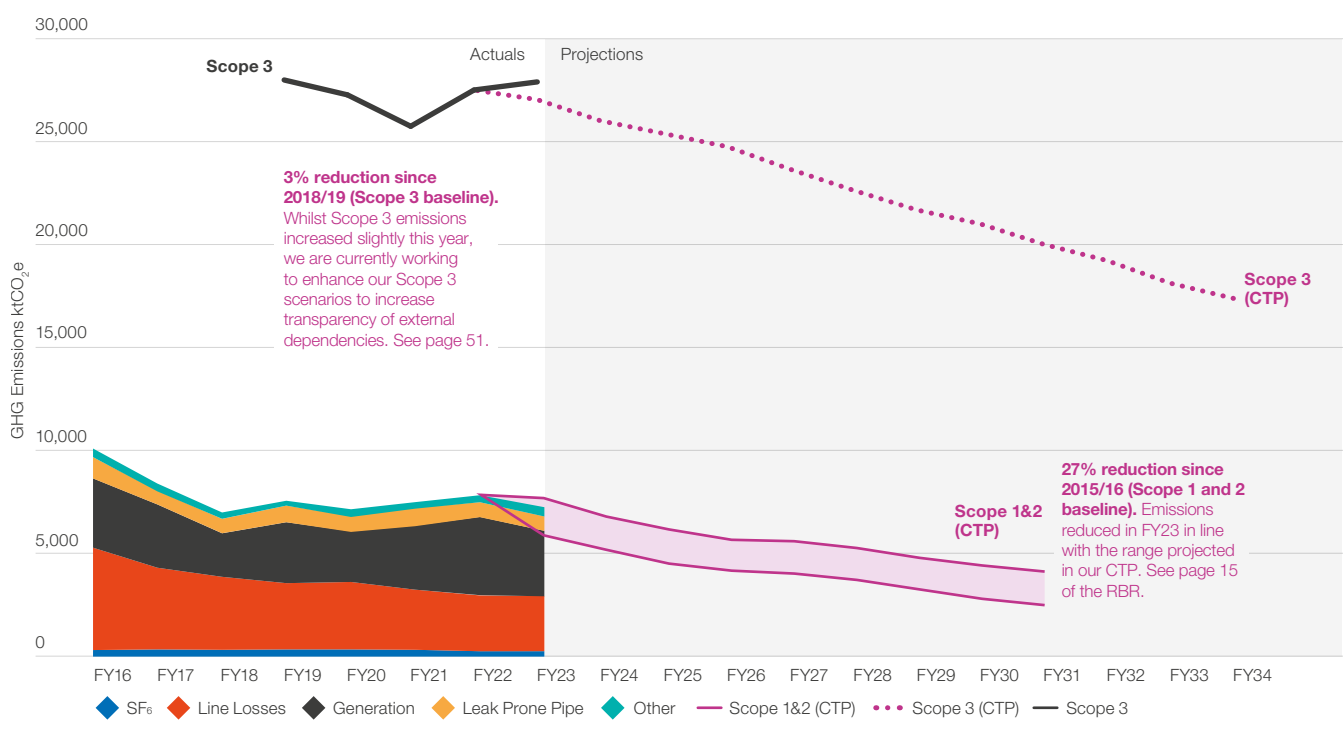
In June 2022, National Grid became one of the first FTSE 100 companies to publish a transition plan for climate change. This was something we committed to shareholders following the Chancellor's announcement at COP26 that the UK will move towards making it mandatory for companies to publish a clear, deliverable plan on how they will decarbonise and transition to net zero.

Over the last year we have:

- put our CTP to an advisory vote at the 2022 AGM, which was approved by 98% of shareholders.
- engaged with investors on our climate strategy and CTP.
- contributed towards the Transition Plan Taskforce's (TPT) consultation on both their disclosure framework and sector specific guidance. We also co-chair the TPT Electric Utilities and Power Generators working group, supporting the further development of sector specific guidance.
- embedded performance management against the CTP and continued to integrate climate strategy in our financial planning process.

Our GHG performance and transition pathway has been re-baselined following the sale of Rhode Island and a majority stake in UK Gas Transmission and Metering, as well as the NGED Acquisition. Methodological adjustments have also been made to improve data accuracy, including the transition to new standards and global warming potential (GWP) measurements contained within the IPCC's AR5.

 For more information, please refer to our Climate Transition Plan



## EU Taxonomy

The EU Taxonomy Regulation is a framework to facilitate sustainable investment by creating a 'green list' of environmentally sustainable economic activities based on scientific criteria.

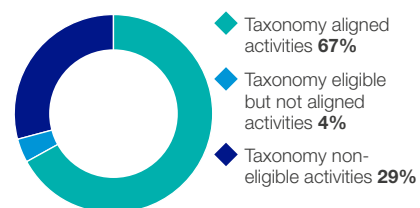
In our commitment to be a trusted, value-driven leader in the energy transition, we have voluntarily elected to publish disclosures based on our eligibility and alignment to the EU Taxonomy Delegated Acts on Climate Change Mitigation and Adaptation. Both objectives have been developed to align with the Paris Agreement and are highly material to our business.

Following a process of identifying a complete set of eligible activities and assessing these activities against the substantial contribution, do no significant harm and minimum safeguards screening criteria, our total EU Taxonomy-aligned KPIs are as follows:

 For more information, please refer to our 2022/23 EU Taxonomy Report

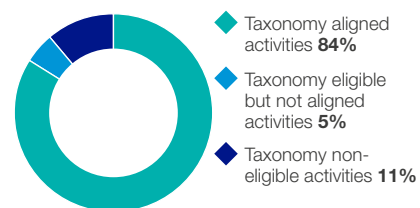
### Group aligned turnover

**67%**  
**£14.4bn**  
(2021/22: 67% £12.4bn)



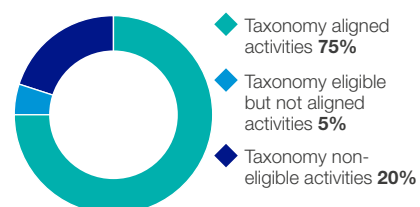
### Group aligned opex

**84%**  
**£6.5bn**  
(2021/22: 84% £5.3bn)



### Group aligned capex

**75%**  
**£5.6bn**  
(2021/22: 73% £4.5bn)





# Task Force on Climate-related Financial Disclosures (TCFD) continued

## 3. Risk management Climate Change and ERM

Climate change is considered as part of our ERM process and is one of our GPRs.

For details of our ERM framework and process, see page 18.

Since December 2021, the ERCC split the climate change GPR risk into two distinct elements:

### 1. Climate Change (mitigation GPR):

The standalone mitigation risk is aligned to our strategic objective 'Enable the energy transition for all', with a focus on delivering clean, decarbonised energy to meet our net zero goals.

- GPR description: *We fail to identify and/or deliver upon actions necessary to address the transitional impacts (from a changing energy system) of climate change on our business, because of poor management of threats and opportunities associated with climate change, leading to a reputational impact of not enabling the Group to meet its own net zero commitments: ensure our business model and strategy is aligned to the Paris Agreement on climate change; deliver greenhouse gas emission reductions for our business and enable economy-wide net zero transition; and demonstrate climate change leadership within the energy sector.*

### 2. Significant Disruption of Energy (adaptation GPR):

The adaptation or physical risk activity, absorbed within the control framework associated with the 'Significant Disruption of Energy' risk, has helped ensure we continue to deliver energy reliably for our customers, with a focus on resilience.

- GPR description: *We fail to predict and respond to a significant disruption of energy supply because of climate change, asset failure (including third-party assets), storms, attacks, market failure or other emergency events leading to significant customer harm, lasting reputational damage with customers, regulators and politicians, material financial losses, loss of franchise and damage to investor confidence.*

This has generated greater oversight, focus and adoption of two distinct and proportionate control frameworks in line with the new Group risk appetite – mitigating downside risk, and maximising opportunities, where applicable.

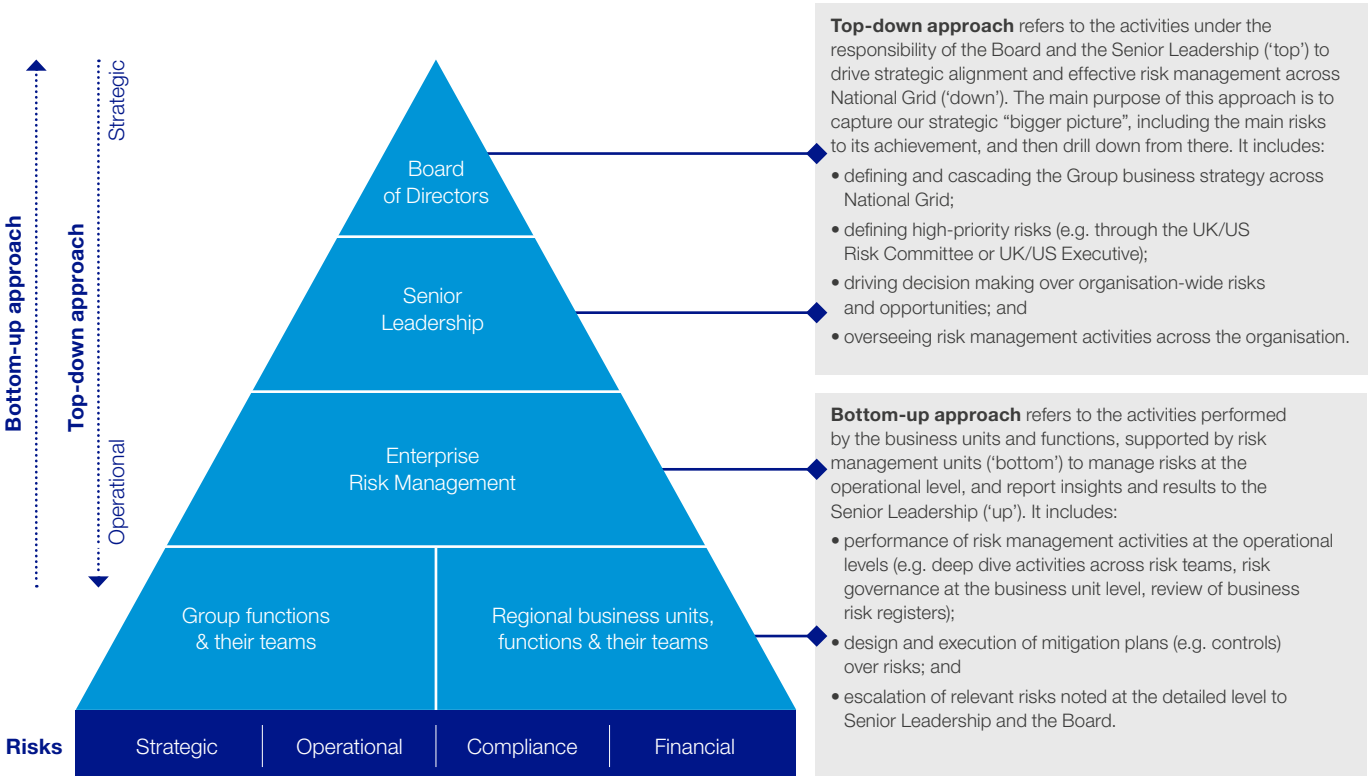
Further details of the Group's exposure to climate change are described on pages 21 and 23.

We have further developed our risk and opportunity horizon scanning to assess critical trends to the energy transition. With our senior stakeholders and supported by external risk experts, we identified key indicators and metrics which are measured on a monthly basis against thresholds. These are analysed against our current strategy and business plans for their potential impact and plausibility. Emerging risks are managed under our risk management framework with results reviewed by senior leadership (detailed further on page 19).

### Integration of the climate risk management process into our overall risk management framework

Consistent with the Group's overall approach to risk management and internal control, climate change risk management activities take place through all levels of our organisation. Our risk governance model drives an effective 'top-down, bottom-up' approach (see below) which is described further on page 18.

## Top-down, bottom-up approach



## Group's Risk Taxonomy

The Group's Risk Taxonomy supports all levels of the business to categorise any climate change risk into one of our four taxonomy groups: strategic, operational, financial and compliance. Sub-categories beneath these four groups allow the business to select a more granular taxonomy grouping with an assigned risk appetite. The individual business unit or Group function Risk Committees oversee, discuss and challenge new and existing climate change risks using the ERM framework, taxonomy and scoring methodology to ensure each risk has an appropriate inherent, current and target score for likelihood, financial and reputational impact. Where current risk levels are outside of agreed target scores and our risk appetite (based on the taxonomy), the business area implements actions and internal controls to close the gap.

Despite external risk pressures, our risk exposure specific to our climate-related risks is largely unchanged with the majority of our risks operating within risk appetite.

The table below illustrates a comprehensive and evolving set of risk categories that is used for organising and communicating risk across the organisation. It is an important component of the risk management process as it provides a complete set of risk categories across different levels and enables risk owners and the risk community within an organisation to consider climate-related risks that could affect achieving its objectives. The climate-related risks aligns directly with two primary risk categories – strategic and operational. Specifically, these risks directly focus on 'Environmental, social and governance' (ESG) and 'Production and service disruption', but are also indirectly incorporated into many other risks across the framework.

Further, once a risk is identified and described, the threat (or the exposure) it represents to National Grid is quantified with the use of risk scales so that a proper mitigation plan is defined and implemented.

Setting consistent and organisation-wide definitions for quantifying risk, with impact, likelihood and velocity adopted as the minimum assessment, this approach enables a robust and meaningful quantification of risk to inform the risk response (see table on page 46).

## Risk Taxonomy

	Strategic	Operational	Compliance	Financial
<b>Risk level 0</b>	Strategic risks are risks, both internal and external, associated with the business model, corporate strategy and long-term planning.	Operational risks are risks derived from National Grid's core business practices, which rely on our systems, equipment, processes and people.	Compliance risks are risks associated with compliance to laws and regulations, industry standards, contract requirements and internal policy.	Financial risks are risks associated with National Grid's ability to raise capital, maintain access to capital, deliver profitable growth and meet our earnings and capital growth targets.
<b>Risk level 1</b>	<ul style="list-style-type: none"> <li>Strategy delivery</li> <li>External market environment</li> <li>Political landscape</li> <li>Brand, trust and reputation</li> <li><b>Environmental, social and governance</b></li> <li>Consumer</li> <li>Agility</li> <li>Global megatrends</li> <li>Culture and behaviours</li> <li>Talent management</li> </ul>	<ul style="list-style-type: none"> <li>Customer</li> <li>People management</li> <li>Health and safety</li> <li>Asset development, availability and performance</li> <li><b>Production and service disruption</b></li> <li>Business continuity and resilience</li> <li>Third party and supply chain</li> <li>Cyber security</li> <li>Data protection</li> <li>Technology</li> <li>Change management</li> </ul>	<ul style="list-style-type: none"> <li>Market external obligations</li> <li>Regulatory strategy</li> <li>Legislative and regulatory complexity and scale</li> <li>Health, safety and environmental compliance</li> <li>Competition and anti-trust</li> <li>Financial crime</li> <li>Internal compliance</li> </ul>	<ul style="list-style-type: none"> <li>Planning and forecasting</li> <li>Business performance</li> <li>Financial market</li> <li>Balance sheet</li> <li>Financial reporting</li> <li>Supplier value and cost management</li> </ul>

## Task Force on Climate-related Financial Disclosures (TCFD) continued

### How we manage our climate-related risks

As part of our risk management process, we have assigned key controls to manage both our climate change mitigation and adaptation risks.

The controls for our climate change mitigation GPR are in line with our strategy and regulatory frameworks and are also reflected throughout other relevant risks, for example: regulatory outcomes; political and societal expectations; and significant disruption of energy. The key overarching mitigation controls involve tracking progress against targets, identifying changes that could trigger additional transition risks and implementing procedures and proposed solutions to overcome them.

Our key climate change adaptation controls include the following:

- **Fit for Future of Electricity Strategy:**

A corporate strategy that considers the steps to ensure our business remains resilient in the future, such as enhancing design standards, and investments on asset hardening and flood protection.

- **Engineers Governance forums:**

Group Chief Engineer and Engineering Duty Holders sharing guidance and data on key topics such as resilience.

- **Resilience and Asset Management Business Management Standard (BMS):**

Sets out minimum requirements and a framework for resilience capability and managing asset risk to ensure each business unit is prepared for the next disruptive event.

- **Establishment of the Business Resilience and Crisis Management**

**organisation:** Reporting to the Group Chief Engineer and Group General Counsel & Company Secretary, this team is focused on building resilience to all threats and hazards. This includes the development of crisis management and business continuity plans, training, and exercises to help align and coordinate our response to severe weather and other crisis events; but is also leveraging innovative technologies to improve our intelligence, looking strategically at evolving risks associated with climate change.

We are also expanding our network of external stakeholders to identify and leverage industry thought leadership and play an active role in shaping new policies and regulations.



More information on our stakeholders can be found on [pages 36 and 37](#)

## Risk assessment scoring

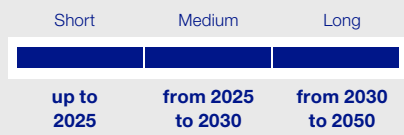
Risk scales						
Rating	Financial – Directorate (£)	Financial – Management (£)	Financial – Business unit/ Function/ Regional (£)	Financial – Group (£)	Reputation	Likelihood and descriptions
<b>1</b>	<50k	<500k	<5m	<50m	<b>Internal</b> Minor impact on stakeholders within National Grid Group	<b>Remote</b> Frequency: <Once in 20 years Probability: <10% chance
<b>2</b>	50 – 100k	500k – 1m	5 – 10m	50 – 100m	<b>Intra-Group (Internal)</b> Major impact on stakeholders within National Grid Group	<b>Less likely</b> Frequency: <Once in 15 years Probability: >10% chance and <40% chance
<b>3</b>	100 – 300k	1 – 3m	10 – 30m	100 – 300m	<b>Local 3rd Party (External)</b> Impact on local stakeholders	<b>Equally unlikely as likely</b> Frequency: <Once in 10 years Probability: >40% chance and <60% chance
<b>4</b>	300 – 500k	3 – 5m	30 – 50m	300 – 500m	<b>National (External)</b> Impact on national stakeholders	<b>More likely</b> Frequency: <Once in 5 years Probability: >60% chance and <90% chance
<b>5</b>	>500k	>5m	>50m	>500m	<b>International (External)</b> Impact on stakeholders that could reasonably be visible on the wider international stage	<b>Almost certain</b> Frequency: One or more a year Probability: >90% chance

## Risks and opportunities

Guided by our scenario modelling, strategic planning and risk management approaches articulated above, the climate-related risks and opportunities that pose a financially material impact to the Group are detailed below, along with our basis of measuring and responding strategically to each. To assess the relative materiality, we established scope of impact, timeframe and likelihood for each risk and opportunity using internal analysis, market data and input from subject matter experts. We have only reported risks and opportunities financially material to the Group per the risk assessment scoring table on page 46.

### Time horizons and probability

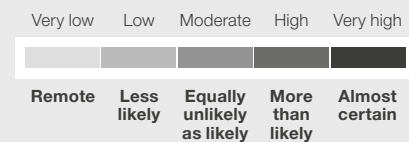
The timeframes we have used to assess the climate-related risks and opportunities are:



These time horizons largely align with our planning and forecasting processes timelines, with some buffers to reflect the regularity of updating scenarios:

- **Short:** In line with our annual planning and shorter-term budget processes.
- **Medium:** Reflects our strategic business planning process period, which is 5 – 10 years.
- **Long:** Aligns with our longer-term emerging risk assessment timelines, up to the date of our net zero commitment.

Our 'likelihood' assessment is an indicative estimate of the probability for material financial impacts with reference to the following categorisation:



We use our ERM risk assessment scoring scale to categorise the likelihood of our climate change risks and opportunities.

## Our material climate-related risks and opportunities

**Risk/opportunity**

### 1. Transition Risk

#### Policy & Legal

#### Future reduction in the demand for US natural gas

The role that our US gas networks play in the pathway to achieving the GHG emissions reduction targets set in the jurisdictions in which we operate is currently uncertain.

Our US jurisdictions have indicated an increase in electrification and a reduction in gas heating demand in their plans to achieve their respective decarbonisation targets. Though there is acknowledgement of the value of back-up heat sources such as low-carbon gas, there is a risk that the accounting assumptions, such as the useful economic life (UEL), of certain elements of our US gas networks could be adjusted in line with future legal and regulatory changes.

Note: The corresponding risk in the UK is immaterial as we have sold a majority interest in our Gas Transmission and Metering business, and our retained 40% interest is not treated as part of our continuing operations.

**Business potentially affected:**  
New York, New England, NGV

**Timeframe (term):**  
Short Medium Long

**Likelihood:**  
Very low Low Moderate High Very high

**Measurement indicators:**  
Gas UEL sensitivities, GHG emissions, CTP

**Potential impact**

Massachusetts and New York have released their final plans to execute their respective decarbonisation targets. Though these plans indicate an accelerated programme towards electrification and a reduction in gas heating demand, they have been developed to inform future legislation and do not have the force of law or regulation.

It should be noted that all net zero pathways suggest some role of gas in heating buildings beyond 2050, so we have performed sensitivity analysis to assess the impact on our Group financial results of shortening the UELs of our gas business assets, which for 2050 illustrates an unlikely worst-case scenario. This may result in an increase in depreciation expense of around £239 million to 2050 for US-regulated assets. Please refer to note 13 Property Plant and Equipment on page 158 for more details.

This sensitivity calculation excludes any assumptions regarding the residual value of our asset base and the effect that shortening the asset depreciation lives would be expected to have on our regulatory recovery mechanisms.

Our US fossil fuel powered electricity generation assets are currently expected to be materially depreciated by 2040 which aligns to New York's target to achieve zero emissions from electricity by 2040.

**Our response**

We recognise the risk to the UELs of some elements of our US gas networks, as a result of the energy transition. Whilst we believe the gas assets which we own and operate today will continue to have a crucial role in maintaining security, reliability and affordability of energy beyond 2050, the extent of this role remains uncertain given the dependency on economic, technological, legal and regulatory developments. Our current expectation is that any adjustments to our accounting assumptions would only be triggered by future changes in relevant laws and regulations within our jurisdictions.

Under our Clean Energy Vision, we are pursuing zero fossil fuel gas and electric systems by 2050, if not sooner, in the US. The vision proposes a hybrid approach to heating that enables customers to have more affordable and practical choices to become fossil free. More details can be found in our Clean Energy Vision.

This year, we submitted a depreciation study on our gas assets to the New York Public Service Commission (PSC) in advance of our rate case filing, outlining the affordability challenges for various scenarios for gas, including a minimal gas heating future.

We continue to engage in key regulatory proceedings and processes in New York and Massachusetts to maximise recovery on our gas business assets, including the ongoing DPU 20-80 'Future of Gas' proceeding in Massachusetts.



# Task Force on Climate-related Financial Disclosures (TCFD) continued

**Risk/opportunity**

## 2. Transition Risk

### Technology

#### Not meeting significant increase in electricity demand

To meet net zero, electricity use and share of final demand will need to expand significantly, with ever-increasing volumes of intermittent renewable energy. If the ESO or our UK and US electricity networks do not adapt to these changes, there is a risk National Grid will not be able to ensure reliability and security of supply.

**Business potentially affected: Group-wide**

**Timeframe (term):**  
Short Medium Long

**Likelihood:**  
Very low Low Moderate High Very high

**Measurement indicators:**  
Network reliability; capital expenditure on ESO stability services and UK and US power networks

**Potential impact**

Our current role as the GB ESO is pivotal to delivering the energy transition. If the ESO is not prepared with the systems and processes to operate a decarbonised energy supply system with significantly higher intermittency, there will be significant costs from market inefficiency and the potential for network outages impacting our customers.

There is also a risk that the transmission and distribution networks we operate in the UK and US may not be equipped to deliver the significant electricity demand growth envisioned to achieve net zero.

In the short term, failures could affect us through reputational damage and lost regulatory incentive income, which link directly to reliability. For example, in relation to UK ED, the Interruptions Incentive Scheme in RIIO-ED2 provides 150bps upside incentive but 250bps downside penalty on our return on retained earnings (RORE).

**Our response**

Our ESO business is ensuring it can operate the system safely and securely at zero carbon by proactively working with the UK Government on electricity market reform.

On 6 April 2022, the UK Government announced its intention to create the FSO that will take on all of the existing ESO roles. In line with this aspiration, we are working towards establishing the FSO in 2024, at which point it will no longer be part of the Group (see page 9). The ESO's contribution to Group operating profit can be seen on page 56.

National Grid continues to invest substantial capital in the UK and US networks for higher supply load and system resilience.

In the UK, 17 major projects have been approved by the regulator to meet the UK Government's ambitions to connect up to 50 GW of offshore generation to the electricity network by 2030 (see page 3).

To enhance system flexibility, we continue to invest in our broader interconnector portfolio, connecting the UK electricity system to those of mainland European countries.

We regularly measure and report our network reliability across transmission, distribution and interconnection networks (see page 16).

**Risk/opportunity**

## 3. Transition Risk

### Market

#### Customer buy-in and trade-off management

Policy focus on the cost of the energy transition to customers is likely to increase regulatory scrutiny of network operators.

If customers and regulators perceive costs as unreasonable, National Grid could suffer reputational damage and regulatory repercussions.

**Business potentially affected: Group-wide**

**Timeframe (term):**  
Short Medium Long

**Likelihood:**  
Very low Low Moderate High Very high

**Measurement indicators:**  
% of National Grid costs on customer bills, customer trust survey, feedback through the fair transition plan.

**Potential impact**

Missing our affordability commitments could damage our regulatory negotiations, trust in the market and the resulting returns and incentives of the frameworks within which we operate.

Due to the degree of external variables affecting our reputation, it is difficult to meaningfully quantify the risk. However, if not managed effectively, it could undermine our corporate strategy and ability to attract capital, causing a potentially material impact on our financial performance.

**Our response**

Being at the 'heart of a clean, fair and affordable energy future' is our purpose and our Regulatory Strategy team has a strong focus on affordability for consumers, working with regulators to minimise the impacts to customer bills and to introduce affordability mechanisms. We utilise innovative and digitalised solutions to enhance our operations and support a culture across our businesses that maximises every opportunity to innovate and work smarter for our customers. Our RIIO-ED2 business plans embedded £723 million of efficiency savings, to limit increases to consumer bills.

Despite these efforts, the recent cost of living challenges have affected our communities, so we have launched a number of initiatives:

- We launched an energy support fund of £50 million in the UK and \$17 million in the US, deployed through our Grid for Good programme to support those most in need (see page 33).
- Our Winter Customer Savings Initiative was launched in November 2022 to support our customers in a number of ways (see page 30).

**Risk/opportunity**

## 4. Transition Risk

### Reputation

#### Missing transition targets and commitments

There is a risk that we do not deliver our crucial role in delivering the emissions reduction targets of the jurisdictions that we operate in. There is also a risk that we fall short of our own stretching GHG emissions targets and commitments.

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**Business potentially affected:**  
Group-wide

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**Timeframe (term):**

Short	Medium	Long

---

**Likelihood:**

Very low	Low	Moderate	High	Very high

---

**Measurement indicators:**  
Network reliability, renewable capacity additions, proportion of renewables in energy mix, EU Taxonomy-aligned capital investment, customer satisfaction (US)

**Potential impact**

Failing to play our central role in the energy transition, for example by failing to deliver the major network reinforcement required to meet government renewable installation targets, or by failing to meet our own emissions reduction targets could undermine our corporate strategy, making it difficult to attract capital and resulting in materially lower financial performance. It could also damage our relationships with our trusted stakeholders, including our investors, regulators and customers and potentially position National Grid as an obstacle rather than an enabler in the net zero transition.

Given this risk would likely materialise over the medium to long term, it is difficult to meaningfully quantify this risk at this stage.

**Our response**

As a regulated utilities business, there are a number of dependencies that are unique to our business model that impact our ability to deliver our emissions reduction plans. We therefore work closely with our stakeholders, including our regulators in the UK, New York and Massachusetts, to ensure policy and regulatory frameworks enable and facilitate net zero plans, for example by ensuring regulatory frameworks are financeable.

In June 2022, National Grid published its CTP, which sets out an ambitious roadmap to a vision of reaching net zero, and as close to 'real zero' as possible, across Scope 1, 2 and 3 emissions by 2050 (see page 43).

This year, National Grid has made £5.6 billion in green capex as aligned to the EU Taxonomy principles, 75% of total capex (see page 43). This keeps us on track to deliver our £40 billion five-year investment programme up to 31 March 2026, of which £29 billion is designated as green investment (see page 17).

**Risk/opportunity**

## 5. Physical Risk

### Increased frequency of extreme weather incidents and changing long-term climate trends

#### Acute

Our assets are at risk of physical impacts from increased frequency of extreme weather events such as storms and flooding, leading to asset damage and operational risks.

#### Chronic

Our assets are at risk of physical impacts from changing long-term climate trends, leading to asset damage and operational risks.

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**Business potentially affected:**  
Group-wide

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**Timeframe (term):**

Short	Medium	Long

---

**Likelihood:**

Very low	Low	Moderate	High	Very high

---

**Measurement indicators:**  
Network reliability, major storm costs, CCRT outputs, research outputs from innovation projects

**Potential impact**

Our New York business experienced two extreme weather incidents in December 2022, including a 48-hour blizzard which resulted in power outages to over 200,000 customers and cold weather-related gas pipeline issues. These incidents highlight the vulnerability of our energy infrastructure and communities.

We experience significant costs because of asset damage and operational interruptions due to major storms, with £258 million (2021/22: £163 million) incurred in the year. Under our regulatory frameworks such costs are typically recoverable in future years. More details on our major storm costs can be found on pages 238 and 239 in the 'Other unaudited financial information' section.

These incidents are likely to increase in line with the increasing likelihoods illustrated by the IPCC, and associated costs are expected to grow accordingly, unless climate adaptation is appropriately measured and implemented.

**Our response**

Our Climate Vulnerability Steering Committee and working groups are conducting a Group-wide CVA for energy-carrying assets. This programme is leveraging our Climate Change Risk Tool analysis to identify long-term climate hazard risk to our energy infrastructure. On completion, we will develop a Climate Change Adaptation Plan, outlining solutions for our high-risk assets and confirm the strategic approach to managing that risk.

In the US, we are working with leading organisations to develop a consistent industry methodology for climate vulnerability assessments, hardening plans, standards and rate case justifications.

In the UK, we have commenced a set of innovation projects to understand the impacts of climate change hazards on our asset performance.

We continue to invest in climate adaptation across the Group in the form of storm hardening and flood defences, with a further £31 million (2021/22: £36 million) invested in the year.

More details of this year's climate change adaptation costs can be found in our EU Taxonomy Report.

# Task Force on Climate-related Financial Disclosures (TCFD) continued

**Risk/opportunity**

## 6. Transition Opportunity

### Products/Services

#### Identifying new products and services to deliver the future energy system

The energy transition presents a significant opportunity for the development of new products and services, providing business opportunities to scale technologies and develop existing ones.

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**Business potentially affected:**  
Group-wide

---

**Timeframe (term):**

Short      Medium      Long

---

**Likelihood:**

Very low    Low    Moderate    High    Very high

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**Measurement indicators:**  
Network reliability, investment in research and development (R&D), National Grid Partners (NGP) capital investment, EU Taxonomy green capex ratio

**Potential impact**

Our NGV business has the potential to benefit from significant investment opportunities in both the UK and US, regarding interconnectors, offshore wind and onshore renewables.

There are also potential opportunities for our Group entities to partner with organisations in the development of innovative low-carbon gas alternatives, MPIs, carbon capture, usage and storage (CCUS) and long-term electricity storage.

Taking advantage of these opportunities would lead to significantly higher capital investment and growth and ultimately increase Group profit and EPS. Given these opportunities are dependent on policy and incentive decisions as well as open to competition, it is not possible to reliably measure the impact of this opportunity at this time.

**Our response**

NGV is developing plans for MPIs, connecting offshore wind to land as well as connecting these offshore wind clusters in the UK to neighbouring countries. In April 2023, the first of these plans between NGV and Dutch company, TenneT, was announced to explore connecting up to 2 GW of offshore wind between the British and Dutch electricity systems (see page 32). This follows a study undertaken by the ESO, which shows we could reduce energy costs to consumers by £3 – 6 billion and onshore cable landing points by 50%, lessening the impact on coastal communities.

Our NGV business is taking our Community Offshore Wind joint venture with RWE forward in the New York Bight area in the US, further expanding our activities in the US renewables generation market (see page 162).

As part of our Clean Energy Vision to eliminate fossil fuels from our US gas and electricity systems by 2050, we have entered into an agreement to collaborate with state governments and other major hydrogen ecosystem partners to propose a regional clean energy hydrogen hub in the Northeast US. This is in addition to our ongoing hydrogen pipeline readiness projects.

**Risk/opportunity**

## 7. Transition Opportunity

### Markets

#### Emerging segments of the energy sector

National Grid is well positioned to capitalise on the huge growth opportunities associated with the changing global energy mix.

Through smart investment and proactive market engagement National Grid can succeed in new and existing growth markets.

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**Business potentially affected:**  
Group-wide

---

**Timeframe (term):**

Short      Medium      Long

---

**Likelihood:**

Very low    Low    Moderate    High    Very high

---

**Measurement indicators:**  
Network reliability, renewable capacity additions, proportion of renewables in energy mix, EU Taxonomy green capex ratio

**Potential impact**

In the UK, the Government has set a target of 50 GW of offshore wind capacity by 2030. This led to the UK Government directly awarding £20 billion worth of transmission projects to the UK transmission owners including UK ET, which was awarded 17 out of the 26 projects. This, along with other net zero investments across our business units, will lead to a significant increase in Group capital investment over the short, medium and long term, and contribute towards achieving the Group's asset compound annual growth rate (CAGR) of 8 – 10% out to 2025/26 (see page 17).

Following our strategic portfolio pivot, around 70% of our revenues are derived from electricity, and we are therefore well placed to maximise these opportunities.

**Our response**

To deliver the magnitude of new infrastructure that is needed to reach net zero, National Grid has appointed Carl Trowell to lead the new SI business unit focused on the delivery of the 17 offshore wind connection projects, as well as other strategic projects to help the UK government meet its net zero targets (see page 3).

In New England, work began on our first geothermal pilot, which will investigate how a utility-deployed network may be designed to serve new customers and potentially convert existing gas customers to a lower-carbon technology. Geothermal energy draws heat from below the Earth's surface to generate renewable energy.

A significant area of focus for UK ED is leading the way on net zero by enabling the connection of 1.5 million EVs and 600,000 heat pumps to our network by 2028.

Further, the New England state regulator has approved our filing to expand EV charging, enabling up to 32,000 additional charging ports.

## 4. Metrics and targets

In this section, we outline our carbon emissions performance targets and metrics linked to our material climate change risks and opportunities.

Our overall climate commitment is to become a net zero business across scope 1, 2 and 3 emissions by 2050, as established in our CTP. In order to achieve this goal, we have set ourselves a set of ambitious short- and medium-term targets in our RBC in 2020, some of which were updated in our CTP. Our targets directly linked to climate change include:

- reduction of scope 1 and 2 GHG emissions by 80% by 2030 and 90% by 2040 from a 1990 baseline;
- reduction of scope 3 GHG emissions, including the electricity and gas we sell to our customers, by 37.5% by 2034 from a 2019 baseline;
- reduction of SF<sub>6</sub> emissions from our operations 50% by 2030 from a 2019 baseline; and
- move to a 100% electric fleet by 2030 for our light-duty vehicles and pursue the replacement of our medium- and heavy-duty vehicles with zero-carbon alternatives.

A complete index of the quantitative measurement indicators used to manage each climate-related financial risk and opportunity is set out in the table below.

We continually review our metrics and targets to ensure that the data we are measuring is meaningful, aligns with our strategy, and is providing the information the business and our stakeholders need to effectively monitor our performance and demonstrate our progress.

In addition to the metrics laid out below, we have disclosed the proportion of our International Financial Reporting Standards (IFRS) revenue, operating expenditure and capital expenditure that align with the climate change mitigation and adaptation objectives of the EU Taxonomy delegated acts. Given the climate change mitigation objective's alignment to the principles of the Paris Agreement, the disclosures provide a transparent view of the Group's compatibility with the net zero goals of the jurisdictions we serve during the year ended 31 March 2023. See page 43 for a summary of the EU Taxonomy.



Please also refer to the RBR for the limited scope assurance opinion received over our most material sustainability metrics.

Further, we are closely monitoring developments regarding the formation of the International Sustainability Standards Board (ISSB) and its proposals to deliver a comprehensive global baseline of sustainability-related disclosure standards, as well as the SEC proposed climate rules and UK Greening Finance roadmap.

Whilst we currently leverage the TCFD, covered in this report, and GRI and SASB frameworks in the RBR to maximise the comparability and usefulness of our reporting, we are encouraged to see advancement to further align sustainability reporting disclosures.

### Material Scope 1 and 2 emissions

- Electricity line losses
- Fossil fuel generation
- Natural gas losses (combustion, fugitives and venting)
- SF<sub>6</sub> leakage (an insulating gas used in electricity networks)

### Material Scope 3 emissions

- Gas we sell directly to customers
- Electricity we sell directly to customers
- Goods and services that we buy

## Index of climate-related quantitative measurement indicators

Measurement indicator risk/opportunity	2022/23	2021/22 <sup>2</sup>
Total scope 1 and 2 emissions (tCO <sub>2</sub> e)	7,245,612	7,831,047
Scope 1 emissions (tCO <sub>2</sub> e)	4,369,413	5,033,981
Fossil fuel generation (tCO <sub>2</sub> e)	3,093,766	3,798,944
Natural gas emissions from fugitive and venting (tCO <sub>2</sub> e)	714,405	720,058
SF <sub>6</sub> fugitive emissions (tCO <sub>2</sub> e)	277,856	279,268
Scope 2 emissions (tCO <sub>2</sub> e)	2,876,199	2,797,066
Electricity line losses emissions (tCO <sub>2</sub> e)	2,748,279	2,678,531
Scope 3 emissions (tCO <sub>2</sub> e)	27,879,254	27,492,438
Sold gas emissions (tCO <sub>2</sub> e)	17,972,516	17,617,298
Sold electricity emissions (tCO <sub>2</sub> e)	3,510,283	3,448,569
Scope 1, 2 and 3 emissions intensity <sup>1</sup> (tCO <sub>2</sub> e) / £m	337	459
Green capex five-year forecast (2021/22 – 2025/26)	c.£29bn	c.£24bn
Climate change adaptation capex	£30.8m	£36.1m
Reduction of scope 1 and 2 GHG emissions from 1990 baseline %	70% (Target 80% by 2030)	
Reduction of scope 3 GHG emissions from 2019 baseline %	3% (Target 37.5% by 2034)	
Reduction of SF <sub>6</sub> emissions from 2019 baseline %	21% (Target 50% by 2030)	
Electric light duty fleet %	5%	4%
Consumer Trust Survey (US) <sup>1</sup>	56.0%	62.4%
NG UK's transmission costs' contribution to consumer bills <sup>1</sup>	£22.22	£29.04
NG UK's distribution costs' contribution to consumer bills <sup>1</sup>	£131.49	£98.85
US Electric: Average Customer Bill (Low Income Customers Excluded) <sup>1</sup>	\$1,774.03	\$1,613.35
US Gas: Average Customer Bill (Low Income Customers Excluded) <sup>1</sup>	\$1,482.81	\$1,314.24
US Electric: Average Low Income (only) Customer Bill <sup>1</sup>	\$1,256.62	\$1,107.07
US Gas: Average Low Income (only) Customer Bill <sup>1</sup>	£1,023.71	\$904.72
Network reliability <sup>1</sup>	See page 16	
Investment in research and development	See page 137	
Gas UEL sensitivities	See note 13 on page 158	
Major storm costs	See pages 238, 239 and 242	

1. Refer to RBR reporting methodology for calculation methodology: [www.nationalgrid.com/responsibility/responsible-business-report](http://www.nationalgrid.com/responsibility/responsible-business-report)

2. All prior year GHG emissions data has been restated to reflect the changes in our portfolio, including the acquisition of UK ED, and the sale of UK Gas Transmission and Metering and Rhode Island.



# Energy consumption

## Our energy consumption is a key area of focus as this, in turn, affects our carbon emissions.

Our energy consumption consists of both fuel consumed and energy purchased from third parties, including renewable energy. Total energy consumption was 2,834,620,817 KWh (10,204,634,941,292 kilojoules), an increase of 17% on the previous year. Of this, 97% was from non-renewable sources, with no significant change from the previous year.

Total energy consumption in the UK was 1,769,976,526 KWh and total energy consumption in the US was 1,064,644,291 KWh.

Operational energy use was 1,373,650,624 KWh (2021/22: 938,626,520 KWh).

Our transport energy use was 400,788,804 KWh (2021/22: 401,858,397 KWh).

Electricity consumption was 890,918,133 KWh (2021/22: 893,447,404 KWh) and heating was 169,263,256 KWh (2021/22: 188,324,775 KWh).

Electricity consumption includes the energy consumed in operating the generation assets in the US. Total energy does not include fuels consumed for power generation on behalf of LIPA, the contracting body, amounting to 15,892,188,400 KWh (net of energy required to operate the generation assets), a 19% decrease on the prior year. Energy consumption related to power generation can vary greatly year-on-year and is determined by LIPA. We therefore report an energy consumption figure net of power generation allowing us to report underlying energy consumption across our business.

For transparency, we have reported energy consumption from power generation as a separate line item. Transport covers company car business travel, and our own operational ground and aviation fleet. In addition to energy consumed, we calculate that system losses accounted for a further 15,746,136,404 KWh, of which 34% occurred in the US. This was a 8% increase on the previous year.

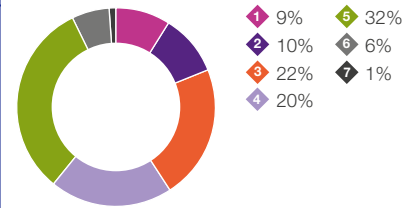


# 1

## Revenue and profits

The vast majority of our revenues are set in accordance with our regulatory agreements (see pages 219 – 224) and are calculated based on a number of factors including investment in network assets, performance on incentives, allowed returns on equity and cost of debt, and customer satisfaction.

### Revenue (%)

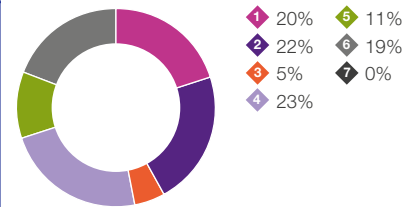


# 2

## Cash flows

Our ability to convert revenue to profit and cash is important. By managing our operations efficiently, safely and for the long term, we generate substantial operating cash flows. Coupled with long-term debt financing, as well as additional capital generated through the take-up of the shareholder scrip dividend option during periods of higher investment, we are able to invest in growing our asset base and fund our dividends.

### Statutory operating profit (%)

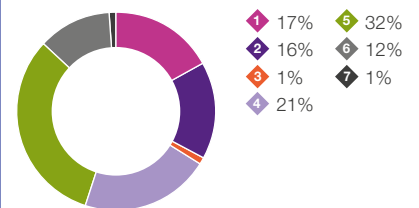


# 3

## Investment

We invest efficiently in our networks to achieve strong and sustainable growth in our regulated asset base over the long term. We also invest in assets in our non-regulated businesses. We continually assess, monitor and challenge investment decisions so we can continue to run safe, reliable and cost-effective networks.

### Capital investment (%)



### Capital allocation

Our capital allocation is determined by the need to make the investments and outputs required under our regulatory frameworks in the UK and US (which accounted for over 85% of our capital expenditure in 2022/23), balanced with the desire to invest in our other businesses, such as NGV and NGP, which may achieve higher growth. The investments we make seek a balance between the continued growth of our core regulated operations and investments in our non-regulated NGV and NGP businesses, while ensuring we continue to deliver a consistent and reliable dividend to our shareholders.

- 1 UK Electricity Transmission (UK ET)
- 2 UK Electricity Distribution (UK ED)
- 3 UK Electricity System Operator (ESO)
- 4 New England
- 5 New York
- 6 National Grid Ventures (NGV)
- 7 Other activities

# Financial review

## Summary of Group financial performance for the year ended 31 March 2023

### Statutory EPS<sup>1</sup>

**74.2p**



### Underlying EPS<sup>1</sup>

**69.7p**



### Group RoE

**11.0%**



### Asset growth

**11.4%**



1. From continuing operations

## Financial summary for continuing operations

£m	2022/23	2021/22	Change
<b>Accounting profit:</b>			
Gross revenue	21,659	18,449	17%
Other operating income	989	228	334%
Operating costs	(17,769)	(14,306)	24%
Statutory operating profit	4,879	4,371	12%
Net finance costs	(1,460)	(1,022)	43%
Share of joint ventures and associates	171	92	86%
Tax	(876)	(1,258)	(30)%
Non-controlling interest	—	(1)	(100)%
Statutory IFRS earnings (note 8)	2,714	2,182	24%
Less: exceptional items and remeasurements (after tax)	(379)	28	n/m
Less: timing and major storm costs (after tax)	214	140	n/m
Underlying earnings <sup>1</sup>	2,549	2,350	8%
EPS – statutory IFRS (note 8)	74.2p	60.6p	22%
EPS – underlying	69.7p	65.3p	7%
Dividend per share	55.4p	51.0p	9%
Dividend cover – underlying	1.3	1.3	—%
<b>Economic profit:</b>			
Value Added <sup>1</sup>	4,807	3,833	25%
Group RoE <sup>1</sup>	11.0%	11.4%	-40bps
<b>Capital investment and asset growth:</b>			
Capital expenditure (including NECO additions within held for sale)	7,484	6,185	21%
Add: investments in JVs and associates (excluding St William)	197	461	(57)%
Add: investments in financial assets (National Grid Partners)	59	93	(37)%
Capital investment <sup>1</sup>	7,740	6,739	15%
Asset growth <sup>1</sup>	11.4%	8.7%	270bps
<b>Balance sheet strength:</b>			
RCF/adjusted net debt (Moody's) <sup>1</sup>	9.3%	8.9%	40bps
Net debt (note 29)	40,973	42,809	(4)%
Add: held for sale net debt	—	5,234	n/m
Net debt (including held for sale) <sup>1</sup>	40,973	48,043	(15)%
Group regulatory gearing <sup>1</sup>	71%	81%	-10% pts

1. Non-GAAP alternative performance measures (APMs) and/or regulatory performance measures (RPMs). For further details and, where practicable, reconciliation to GAAP measures, see Other unaudited financial information on pages 238 – 252.

## Performance management framework

In managing the business, we focus on various non-IFRS measures which provide meaningful comparisons of performance between years, monitor the strength of the Group's balance sheet as well as profitability and reflect the Group's regulatory economic arrangements. Such alternative and regulatory performance measures are supplementary to, and should not be regarded as a substitute for, IFRS measures, which we refer to as statutory results.

Our business performance as set out in our regulatory agreements can differ from accounting under IFRS, principally because our regulators allow for regulatory deferral accounting. Our allowed revenues are set in accordance with our regulatory price controls or rate plans.

Prices are set and charged to customers based on the estimated volume of energy expected to be delivered to achieve the allowed revenue for that year. Where actual volumes delivered differ from those estimates, that results in an over- or under-collection of revenues compared with our allowances. These differences are commonly referred to as timing differences. The same principle applies to revenues from pass-through costs (e.g. commodity and energy-efficiency costs) which are fully recoverable from customers.

Our reported underlying profit excludes major (deferrable) storm costs if these exceed a predetermined threshold in a year and are eligible for future recovery under regulatory agreements. Underlying results also exclude significant exceptional items, and commodity and financial derivative remeasurements, as defined in our accounting policies.

We explain the basis of these measures and, where practicable, reconcile these to statutory results in Other unaudited financial information on pages 238 – 252. Our RPMs have been calculated for the total Group (or individual entities where relevant) and these are not based on IFRS measures.

Specifically, we measure the financial performance of the Group from different perspectives:

- **Accounting profit:** In addition to statutory IFRS measures we distinguish between adjusted results, which exclude exceptional items and remeasurements, and underlying results, which further take account of: (i) volumetric and other revenue timing differences arising from our regulatory contracts; and (ii) major storm costs, which are recoverable in future periods; neither of which give rise to economic gains or losses. In doing so, we intend to make the impact of such items clear to users of the financial information in this Annual Report.
- **Economic profit:** Measures such as Return on Equity (RoE) and Value Added take account of the regulated value of our assets and of our regulatory economic arrangements to illustrate the returns generated on shareholder equity.
- **Capital investment and asset growth:** Capital investment comprises our additions to PP&E and intangible assets (excluding acquisitions), plus our investments in joint ventures and associates, along with investments made by our National Grid Partners business. Asset growth represents the year-on-year increase in RAV and US rate base in our regulated businesses, along with the increase in net assets (excluding certain balances such as pensions, net debt and deferred taxes) in our non-regulated businesses, but excluding the impact of currency movements.
- **Balance sheet strength:** Maintaining a strong investment grade credit rating allows us to finance our growth ambitions at a competitive rate. Hence, we monitor credit metrics used by the major rating agencies to ensure we are generating sufficient cash flow to service our debts. Group regulatory gearing measures our Group net debt as a proportion of the Group's assets that are used to measure asset growth. This includes balances for businesses classified as held for sale under IFRS.

This balanced range of measures of financial wellbeing informs our dividend policy, which as set out in 2021/22 is to grow the dividend per share in line with the rate of CPIH each year.



## Financial summary for continuing operations

**Accounting profit:** Statutory IFRS earnings from continuing operations of £2,714 million were up £532 million from 2021/22, significantly impacted by a £511 million gain on disposal of NECO in May 2022 and a £335 million gain on disposal of our Millennium Pipeline investment in October 2022. We had a full-year contribution from our UK Electricity Distribution business (offset by a shorter period of ownership of NECO in the US) and a further £457 million increase in NGV's contribution (including exceptional insurance recoveries). Statutory results were adversely impacted by £438 million higher interest charges (mainly from inflation on index-linked debt and growth in new long-term senior debt), £742 million adverse year-on-year movements from commodity remeasurements, £252 million lower property contribution (2021/22 included £417 million exceptional gains related to the St William property disposals) and a £95 million increase in major storm costs; but had no repeat of the £458 million deferred tax charge recognised in 2021/22 from the change in the UK tax rate. Statutory EPS for continuing operations of 74.2p was 13.6p higher than the prior year. The net exceptional gains of £619 million (2022: £320 million net charge) and remeasurement losses of £240 million (2022: £292 million net gains) are explained in further detail in the notes to the financial statements.

Our 'adjusted' results exclude the impacts from exceptional items and remeasurements, but include the impact from revenue timing and major (deferrable) storm costs, as explained on page 56. Our 'underlying' results exclude the total impact of exceptional items, remeasurements, timing and major storm costs. A reconciliation between these alternative performance measures and our statutory performance is detailed on page 55 and on pages 239 – 241.

Underlying operating profit for continuing operations was up 15% (10% at constant currency), driven by a full year's contribution and improved performance from UK Electricity Distribution; higher revenues and IFA insurance claim recoveries in NGV; increased underlying revenues, pension gains and a lower COVID-19 impact in New York; and higher property profits (excluding 2021/22's exceptional gains). UK Electricity Transmission performance was lower as a result of the return of revenues related to Western Link liquidated damages. New England profits were lower from the sale of NECO two months into the current year, partly offset by increased revenues (Massachusetts Electric, Massachusetts Gas and FERC). Our joint ventures and associates' contribution increased (mainly UK interconnector revenues). These factors were partly offset by higher net financing costs principally from inflation on index-linked debt. Other interest was favourable year on year. Underlying profit after tax increased by 8% and resulted in a 7% increase in underlying EPS to 69.7p.

## Profitability and earnings

In calculating adjusted profit measures, where we consider it is in the interests of users of the financial statements to do so we exclude certain discrete items of income or expense that we consider to be exceptional in nature. The table below reconciles our statutory profit measures for continuing operations, at actual exchange rates, to adjusted and underlying versions. Further information on exceptional items and remeasurements is provided in notes 2, 5 and 6 to the financial statements.

### Reconciliation of profit and earnings from continuing operations

£m	Operating profit			Profit after tax			Earnings per share		
	2022/23	2021/22	Change	2022/23	2021/22	Change	2022/23	2021/22	Change
<b>Statutory results</b>	<b>4,879</b>	4,371	12%	<b>2,714</b>	2,183	24%	<b>74.2p</b>	60.6p	22%
Exceptional items	(935)	(166)		(619)	320		(16.9p)	8.9p	
Remeasurements	350	(392)		240	(292)		6.5 p	(8.1p)	
<b>Adjusted results</b>	<b>4,294</b>	3,813	13%	<b>2,335</b>	2,211	6%	<b>63.8p</b>	61.4p	4%
Timing	30	16		26	19		0.7p	0.5p	
Major storm costs	258	163		188	121		5.2p	3.4p	
<b>Underlying results</b>	<b>4,582</b>	3,992	15%	<b>2,549</b>	2,351	8%	<b>69.7p</b>	65.3p	7%

### Reconciliation of profit and earnings from discontinued operations

Statutory operating profit from discontinued operations of £715 million (2022: £637 million) includes a £1 million credit in respect of exceptional items (2022: £17 million debit) and timing over-recovery of £12 million (2022: £80 million under-recovery). Tax on exceptional items for discontinued operations comprises a £6 million credit (2022: £1 million credit). The tax charge in 2021/22 also included a deferred tax exceptional charge related to the change in the UK corporation tax rate of £145 million. The after-tax gain on disposal of our 60% share in UK Gas Transmission of £4,803 million is included in our statutory results for discontinued operations. Tax on timing was £2 million (2022: £15 million). Statutory earnings per share from discontinued operations was 138.9p (2022: 4.8p) and adjusted earnings per share from discontinued operations (but excluding the impact of timing) was 8.5p (2022: 11.4p).

**Economic profit:** From an economic profit perspective, our Group regulatory performance measure of Value Added increased from £3,833 million to £4,807 million driven by continued delivery of performance across the Group, along with the benefit from higher RAV indexation which will generate higher revenues in future years. Group RoE for 2022/23 was 11.0%, lower than the 11.4% achieved in the prior year.

**Capital investment and asset growth:** Capital investment of £7,740 million was £1,001 million (15%) higher than 2021/22, or £552 million (8%) higher at constant exchange rates, driven by a full-year ownership of UK Electricity Distribution, increased capital expenditure in New York, UK Electricity Transmission and NGV, partly offset by lower investment in New England (following the sale of NECO). Higher capital investment along with higher RAV indexation from higher inflation increased our asset growth to 11.4% (2022: 8.7%).

**Balance sheet strength:** Following the completion of the disposals linked to our portfolio repositioning, net debt reduced from £42.8 billion at March 2022 to £41.0 billion at March 2023. Regulatory gearing was also lower at 71% (2022: 81%) and our calculation of Moody's RCF/adjusted net debt credit metric was 9.3%, an improvement of 40bps compared with 2021/22 and comfortably above the current rating threshold of 7.0%.

**Efficiency programme:** As part of our Group efficiency savings programme, we have achieved a further £236 million of savings in 2022/23. This is in addition to the £137 million of savings reported last year. We remain on track to deliver the £400 million savings target (that we announced in November 2021) by the end of 2023/24.

### Financial summary for discontinued operations

Our UK Gas Transmission and Metering business (100%) was classified as discontinued up to its disposal on 31 January 2023. A gain on disposal of £4,803 million was recognised in discontinued operations in 2022/23. The retained 40% minority stake is being treated as held for sale, with the investment held at acquisition fair value and no further profits recognised in 2022/23. Statutory profit after tax of £280 million for discontinued operations (but excluding the gain on disposal) compared with £171 million in the prior year, principally due to exceptional deferred tax charge in 2021/22 from the change in the UK corporation tax rate, cessation of depreciation following held for sale treatment and higher revenues under RIIO-2, partially offset by higher interest costs driven by inflation and a shorter period of ownership in 2022/23.

### Dividend

The recommended full-year dividend per share of 55.44p is in line with the dividend policy announced in March 2021 of increasing in line with UK CPIH inflation and is covered 1.3 times by underlying EPS.



### Timing over/(under)-recoveries

In calculating underlying profit, we exclude regulatory revenue timing over- and under-recoveries and major storm costs (as defined below). Under the Group's regulatory frameworks, most of the revenues we are allowed to collect each year are governed by regulatory price controls in the UK and rate plans in the US. If more than this allowed level of revenue is collected, an adjustment will be made to future prices to reflect this over-recovery; likewise, if less than this level of revenue is collected, an adjustment will be made to future prices in respect of the under-recovery. We also collect revenues from customers and pass these on to third parties (e.g. NYSEDA). These variances between allowed and collected revenues and timing of revenue collections for pass-through costs give rise to over- and under-recoveries.

The following table summarises management's estimates of such amounts for the two years ended 31 March 2023 for continuing and discontinued operations. All amounts are shown on a pre-tax basis and, where appropriate, opening balances are restated for exchange adjustments and to correspond with subsequent regulatory filings and calculations and are translated at the 2022/23 average exchange rate of \$1.22:£1.

£m	2022/23	2021/22 <sup>1</sup>
Balance at start of year (restated)	(49)	65
In-year (under)/over-recovery (continuing)	(30)	(5)
In-year (under)/over-recovery (discontinued)	12	(80)
Disposal of UK Gas Transmission/NECO	131	—
<b>Balance at end of year</b>	<b>64</b>	<b>(20)</b>

1. March 2022 balances restated to correspond with 2021/22 regulatory filings and calculations.

In 2022/23, we experienced timing under-recoveries of £112 million in UK Electricity Transmission, under-recoveries of £139 million in UK Electricity Distribution, over-recoveries of £207 million in UK Electricity System Operator, under-recoveries of £39 million in New England and over-recoveries of £53 million in New York. In calculating the post-tax effect of these timing recoveries, we impute a tax rate, based on the regional marginal tax rates, consistent with the relative mix of UK and US balances.

### Major storm costs

We also take account of the impact of major storm costs in the US where the aggregate amount is sufficiently material in any given year. Such costs (net of certain deductibles and allowances) are recoverable under our rate plans but are expensed as incurred under IFRS. Accordingly, where the net total cost incurred exceeds \$100 million in any given year, we exclude the net costs from underlying earnings. In 2022/23, we incurred deferrable storm costs, which are eligible for future recovery of \$314 million (2022: \$220 million).

### Segmental operating profit

The tables below set out operating profit on statutory and underlying bases, both of which exclude the £4.8 billion on the disposal of our UK Gas Transmission business.

#### Statutory operating profit

£m	2022/23	2021/22	Change
UK Electricity Transmission	993	1,055	(6)%
UK Electricity Distribution	1,069	909	18%
UK Electricity System Operator	237	5	n/m
New England	1,132	764	48%
New York	541	1,095	(51)%
National Grid Ventures	957	283	238%
Other activities	(50)	260	(119)%
<b>Continuing operations</b>	<b>4,879</b>	<b>4,371</b>	<b>12%</b>
Discontinued	715	637	12%
<b>Total</b>	<b>5,594</b>	<b>5,008</b>	<b>12%</b>

The notation 'n/m' is used throughout this section where the year-on-year percentage change is deemed to be 'not meaningful'.

### Underlying operating profit

£m	2022/23	2021/22	Change
UK Electricity Transmission	1,107	1,152	(4)%
UK Electricity Distribution	1,230	887	39%
UK Electricity System Operator	31	54	(43)%
New England	819	886	(8)%
New York	874	706	24%
National Grid Ventures	490	286	71%
Other activities	31	21	48%
<b>Continuing operations</b>	<b>4,582</b>	<b>3,992</b>	<b>15%</b>

Statutory operating profit increased in the year, primarily as a result of the exceptional gains on disposal of businesses, improved NGV performance, a full-year contribution from UK ED, change in discount rate applied to environmental provisions partly offset by year-on-year swings in commodity derivative remeasurements and lower profits in our commercial property business, which benefitted from exceptional gains related to disposal of a joint venture in 2021/22.

The reasons for the movements in underlying operating profit are described in the segmental commentaries below. Unless otherwise stated, the discussion of performance in the remainder of this Financial review focuses on underlying results.

### UK Electricity Transmission

£m	2022/23	2021/22	Change
Revenue	1,987	2,035	(2)%
Operating costs	(994)	(980)	1%
<b>Statutory operating profit</b>	<b>993</b>	<b>1,055</b>	<b>(6)%</b>
Exceptional items	2	12	n/m
<b>Adjusted operating profit</b>	<b>995</b>	<b>1,067</b>	<b>(7)%</b>
Timing	112	85	32%
<b>Underlying operating profit</b>	<b>1,107</b>	<b>1,152</b>	<b>(4)%</b>
<b>Analysed as follows:</b>			
Net revenue	1,770	1,883	(6)%
Regulated controllable costs	(241)	(227)	6%
Post-retirement benefits	(31)	(26)	19%
Other operating costs	(19)	(55)	(65)%
Depreciation and amortisation	(484)	(508)	(5)%
<b>Adjusted operating profit</b>	<b>995</b>	<b>1,067</b>	<b>(7)%</b>
Timing	112	85	32%
<b>Underlying operating profit</b>	<b>1,107</b>	<b>1,152</b>	<b>(4)%</b>

UK Electricity Transmission statutory operating profit was £62 million lower in the year. In 2022/23, there were £8 million of exceptional costs related to the cost-efficiency programme (2022: £12 million) offset by a £6 million (2022: £nil) credit in respect of change in discount rate applied to environmental provisions. Timing under-recoveries of £112 million in 2022/23 compared with £85 million in 2021/22 mainly due to under-collection of Transmission Network Use of System (TNUoS) revenues from lower volumes and the impact of higher inflation, partly offset by the recovery of prior period recoveries.

Adjusted operating profit reduced by £72 million (7%), but this included £27 million adverse year-on-year timing movements. Underlying operating profit reduced by 4%. Net revenues (adjusted for timing) were lower from the return of £147 million for Western Link liquidated damages received in prior years, the impact of tax allowances (super-deductions) and lower customer-funded works (mainly HS2), partly offset by higher revenues from RAV indexation.

Regulated controllable costs were £14 million higher from the impact of higher energy costs (own-use utilities and fuel costs). Other inflationary and workload increases were offset by efficiency savings. Other costs were lower, mainly relating to a one-off settlement in the prior year and higher profit from sale of assets in the current year.

The decrease in depreciation and amortisation reflects prior year asset write-offs partly offset by higher depreciation of a higher asset base.

## UK Electricity Distribution

£m	2022/23	2021/22	Change
Revenue	2,045	1,482	38%
Operating costs	(976)	(573)	70%
<b>Statutory operating profit</b>	<b>1,069</b>	909	18%
Exceptional items	22	—	n/m
<b>Adjusted operating profit</b>	<b>1,091</b>	909	20%
Timing	139	(22)	n/m
<b>Underlying operating profit</b>	<b>1,230</b>	887	39%
<b>Analysed as follows:</b>			
Net revenue	1,627	1,357	20%
Regulated controllable costs	(235)	(180)	31%
Post-retirement benefits	(24)	(24)	—%
Other operating costs	(54)	(86)	(37)%
Depreciation and amortisation	(223)	(158)	41%
<b>Adjusted operating profit</b>	<b>1,091</b>	909	20%
Timing	139	(22)	n/m
<b>Underlying operating profit</b>	<b>1,230</b>	887	39%

Statutory operating profit was £160 million higher in the year, reflecting a full year of ownership, compared to a 9.5-month period for the year ended 31 March 2022.

In 2022/23, there were £22 million of exceptional costs related to the integration of the business into the wider Group. Adjusted operating profit increased by 20%, including the extra period of ownership and the impact of £161 million adverse year-on-year timing movements. Timing under-recoveries of £139 million in 2022/23 are mainly due to the under collection of earned incentives and inflation true-ups, partly offset by over-recovery of pass-through costs, as well as the return of prior period over-recovered balances primarily as a result of the impact of tax allowances (super-deductions).

Underlying operating profit increased by 39%. Net revenues (adjusted for timing) were higher than the prior year due to the extra period of ownership and higher revenues due to RAV indexation, partly offset by the impact of tax allowances and lower engineering recharge revenues due to lower workload.

Regulated controllable costs were higher than the prior year as a result of the different period of ownership. Other costs were lower, mainly due to £13 million profit from the sale of the Smart Metering business and lower engineering recharge costs due to lower work volumes offset by the longer period of ownership.

The increase in depreciation and amortisation reflects the full year of ownership and a higher asset base.

## UK Electricity System Operator

£m	2022/23	2021/22	Change
Revenue	4,690	3,455	36%
Operating costs	(4,453)	(3,450)	29%
<b>Statutory operating profit</b>	<b>237</b>	5	n/m
Exceptional items	1	2	(50)%
<b>Adjusted operating profit</b>	<b>238</b>	7	n/m
Timing	(207)	47	n/m
<b>Underlying operating profit</b>	<b>31</b>	54	(43)%
<b>Analysed as follows:</b>			
Net revenue	538	240	124%
Controllable costs	(175)	(129)	36%
Post-retirement benefits	(17)	(16)	6%
Other operating costs	(7)	(5)	40%
Depreciation and amortisation	(101)	(83)	22%
<b>Adjusted operating profit</b>	<b>238</b>	7	n/m
Timing	(207)	47	n/m
<b>Underlying operating profit</b>	<b>31</b>	54	(42)%

UK Electricity System Operator statutory operating profit increased £232 million in the year, mostly driven by year-on-year timing movements. Timing over-recoveries of £207 million in 2022/23 were driven by collection of prior period balances (legacy TNUoS, Balancing Services Use of System (BSUoS) deferrals, licence fee and other pass-through costs), a £22 million totex over-recovery (reflecting lower totex spend compared with allowances) and the net impact of other pass-through cost true-ups from inflation, incentives and post-vesting connections. In 2022/23 £1 million (2022: £2 million) of exceptional costs were incurred as part of our broader cost efficiency programme.

Adjusted operating profit increased by £231 million driven by the £254 million year-on-year timing movement, partly offset by asset write offs. Excluding the impact of timing, underlying operating profit decreased by £23 million. Net revenue (adjusted for timing) was £44 million higher, but broadly offset by increased regulated controllable costs and pensions as a result of the expected higher volume of work under RIIO-2, plus £10 million additional FSO costs ahead of separation of this business. Depreciation and amortisation was £18 million higher, mostly from accelerated depreciation of the Electricity Balancing System.

## New England

£m	2022/23	2021/22	Change
Revenue	4,427	4,550	(3)%
Operating costs	(3,295)	(3,786)	(13)%
<b>Statutory operating profit</b>	<b>1,132</b>	764	48%
Exceptional items	(456)	80	n/m
Remeasurements	32	(101)	n/m
<b>Adjusted operating profit</b>	<b>708</b>	743	(5)%
Timing	39	32	22%
Major storm costs	72	111	(35)%
<b>Underlying operating profit</b>	<b>819</b>	886	(8)%
<b>Analysed as follows:</b>			
Net revenue	2,332	2,500	(7)%
Regulated controllable costs	(755)	(813)	(7)%
Post-retirement benefits	(27)	(40)	(33)%
Bad debt expense	(58)	(45)	29%
Other operating costs	(391)	(494)	(21)%
Depreciation and amortisation	(393)	(365)	8%
<b>Adjusted operating profit</b>	<b>708</b>	743	(5)%
Timing	39	32	22%
Major storm costs	72	111	(35)%
<b>Underlying operating profit</b>	<b>819</b>	886	(8)%

New England's results were impacted by the disposal of our Rhode Island business, NECO, which was sold in May 2022. This business was classified as held for sale on 31 March 2021 and has not been depreciated since that date. New England's statutory operating profit increased by £368 million, predominantly a result of the £511 million exceptional net gain on disposal of NECO, lower year-on-year exceptional costs associated with transaction and separation, and lower major storm costs, offset by £133 million year-on-year unfavourable movements in commodity contract remeasurements and higher exceptional costs associated with the cost efficiency programme. Excluding the above items, the impacts of a partial year ownership of NECO in 2022/23 and year-on-year foreign exchange movements were partly offset by improved underlying performance in the remaining New England businesses.

Adjusted operating profit decreased by £35 million (5%) at actual exchange rates. Adjusted operating profit includes the impact of major storm costs which were £39 million lower than 2021/22 and also includes the impact of timing which was broadly flat year on year.

## Financial review continued

Excluding the impact of major storm costs and timing, underlying operating profit decreased by £67 million (8%). The impact of owning our Rhode Island business for 10 months less in 2022/23 reduced underlying operating profit by £267 million (30%). Unless stated otherwise, the following commentary is presented excluding the impact of the disposal of NECO in May 2022 and also excluding the impact of foreign currency movements. Net revenues (adjusted for timing and exchange rate movements) increased by £140 million from the benefits of rate case increments in Massachusetts Gas and Massachusetts Electric and higher wholesale network revenues partially offset by the non-recurrence of a property sale in 2021/22. New England controllable costs increased by £22 million (at constant currency) as a result of inflation and workload increases exceeding efficiency savings made in the year. Bad debt expenses were £26 million higher (at constant currency) than 2021/22 due to higher write-offs of aged receivables and the impact of provision rates applied in the current year. Depreciation and amortisation increased due to increased investment, but was offset by non-recurrence of charges in 2021/22. Other costs were lower due to decreases in environmental reserves and favourable pension plan performance, offset by increased operating taxes driven by increased network investment. The weaker pound in 2022/23 increased underlying operating profit by £96 million.

### New York

£m	2022/23	2021/22	Change
Revenue	6,994	5,561	26%
Operating costs	(6,453)	(4,466)	44%
<b>Statutory operating profit</b>	<b>541</b>	1,095	(51)%
Exceptional items	(118)	(24)	n/m
Remeasurements	318	(291)	n/m
<b>Adjusted operating profit</b>	<b>741</b>	780	(5)%
Timing	(53)	(126)	(58)%
Major storm costs	186	52	n/m
<b>Underlying operating profit</b>	<b>874</b>	706	24%
<b>Analysed as follows:</b>			
Net revenue	4,037	3,400	19%
Regulated controllable costs	(1,151)	(963)	20%
Post-retirement benefits	(2)	(44)	(95)%
Bad debt expense	(157)	(87)	80%
Other operating costs	(1,366)	(989)	38%
Depreciation and amortisation	(620)	(537)	15%
<b>Adjusted operating profit</b>	<b>741</b>	780	(5)%
Timing	(53)	(126)	(58)%
Major storm costs	186	52	n/m
<b>Underlying operating profit</b>	<b>874</b>	706	24%

New York statutory operating profit decreased by £554 million, principally as a result of the £609 million year-on-year unfavourable movements in commodity contract remeasurements and net exceptional gains which included £156 million for increasing the discount rate on environmental provisions offset by £38 million of exceptional costs related to our cost efficiency programme. Timing over-recoveries of £53 million in 2022/23 compared with timing over-recoveries of £126 million in 2021/22, driven by commodity price fluctuations and high auction sale prices on transmission wheeling. Major storm costs of £186 million were £134 million higher year-on-year, driven by Storm Elliott, but as in 2021/22, the total costs passed our threshold (\$100 million in aggregate with New England) and so are excluded from our underlying results. These factors, offset by increased underlying operating profit, driven primarily by rate increases and a weaker pound, reduced statutory operating profit to £541 million.

Adjusted operating profit decreased by £39 million (5%), impacted by £73 million year-on-year unfavourable timing movements and higher year-on-year major storm costs of £134 million, but partly offset by the underlying operating profit increasing by 24%, including a £77 million increase as a result of foreign exchange movements. Adjusted for the impact of foreign currency, underlying operating profit increased by £91 million (12%) compared with 2021/22.

Net revenues (adjusted for timing and exchange rate movements) increased by £353 million from the benefits of rate case increases in KEDNY, KEDLI and Niagara Mohawk and income received under the funded COVID-19 arrears management programme alongside resumed collection activities. Regulated controllable costs were £83 million higher (at constant currency) year-on-year, with increased workload and the impact of inflation being partially offset by cost efficiency savings. Provisions for bad and doubtful debts increased by £61 million (at constant currency) driven by write-offs related to the COVID-19 arrears management programme. Depreciation and amortisation increased due to the growth in assets. Other costs were higher due to increased property taxes and higher costs on funded programmes (offset by rate increases), offset by the benefit of a gain on a pension buyout in our Niagara Mohawk business.

### National Grid Ventures (NGV)

£m	2022/23	2021/22	Change
<b>Revenue</b>	<b>1,341</b>	1,024	31%
Operating costs	(235)	(585)	(60)%
Depreciation and amortisation	(149)	(156)	(5)%
<b>Statutory operating profit</b>	<b>957</b>	283	238%
Exceptional items	(467)	3	n/m
Remeasurements	—	—	n/a
<b>Adjusted/underlying operating profit</b>	<b>490</b>	286	71%

NGV's statutory operating profit includes an exceptional gain of £467 million, comprising a £335 million gain from the sale of NGV's stake in Millennium Pipeline and £130 million credit for property damage insurance claim recoveries related to the fire at our French interconnector (IFA) in September 2021 and a £3 million credit for increasing the discount rate on environmental provisions, offset by £1 million of exceptional costs incurred as part of the broader cost efficiency programme.

Underlying and adjusted operating profit was £204 million higher than 2021/22. Interconnector profit increased versus prior year reflecting a full year of contribution from our North Sea Link interconnector (NSL), higher auction revenues in IFA and upside in our second French interconnector (IFA2) which benefitted from an increase in the revenue cap following an Ofgem review. There was additional upside in IFA relating to insurance recoveries following the September 2021 fire. Revenues in our Grain LNG business also increased year-on-year due to increased utilisation.

### Other activities

£m	2022/23	2021/22	Change
<b>Statutory operating (loss)/profit</b>	<b>(50)</b>	260	(119)%
Exceptional items	81	(239)	n/m
<b>Adjusted/underlying operating profit</b>	<b>31</b>	21	48%
<b>Analysed as follows:</b>			
Property	216	40	n/m
Corporate and Other activities	(185)	(19)	n/m
<b>Adjusted/underlying operating profit</b>	<b>31</b>	21	48%

Other activities statutory operating loss includes an exceptional charge of £25 million related to the cost efficiency programme (2022: £22 million), £31 million of costs for the separation of UK Gas Transmission and Metering (2022: £61 million, which also included NECO separation costs) and £16 million of integration costs for UK Electricity Distribution (2022: £95 million of transaction costs for the acquisition of National Grid Electricity Distribution). In 2021/22, we recognised an exceptional gain of £417 million related to the St William disposal.

Excluding exceptional items, underlying operating profit was £31 million (including corporate costs) in 2022/23 compared with £21 million in 2021/22. This increase mainly relates to property site sales which were £176 million higher, primarily related to the sale of 15 sites to St William following the disposal of that joint venture last year, mostly offset by NG Partners investments' fair value losses (mainly driven by Copperleaf) plus no repeat of the high level of fair value gains experienced in 2021/22, and higher corporate costs which included support payments to charitable causes and employees in respect of the energy crisis.

### Exceptional items and remeasurements in operating profit – continuing

In 2022/23, we classified a number of items as exceptional, which has the net impact of increasing our statutory operating profit by £935 million (2022: £166 million) compared with our adjusted and underlying operating profit measures. These items comprise: gains on disposals of our Rhode Island business (£511 million) and Millennium Pipeline (£335 million) in 2022/23 (2022: £228 million gain on disposal of St William joint venture and £189 million release of St William deferred income); transaction, separation and integration costs of £117 million (2022: £223 million); insurance recoveries of £130 million (2022: £38 million); £176 million credit from changes in environmental provisions in 2022/23; and cost efficiency programme and operating model implementation costs of £100 million (2022: £66 million). For further details see note 5 to the financial statements. The expected future costs related to the cost efficiency programme are anticipated to be in the region of £60 million.

We also exclude certain unrealised gains and losses on mark-to-market financial instruments ('remeasurements') from adjusted and underlying profit. In 2022/23, net remeasurement losses on commodity contract derivatives (i.e. 'mark-to-market' movements on derivatives used to hedge the cost of buying wholesale gas and electricity on behalf of US customers) were £350 million, compared with net remeasurement gains of £392 million in 2021/22.

### Financing costs and taxation – continuing

#### Net finance costs

Net finance costs (excluding remeasurements) for the year were 40% higher than last year at £1,514 million, with the £433 million increase driven by higher net debt-related financing costs, from growth in new long-term senior debt and a £244 million impact from higher inflation on our index-linked debt, along with the impact of foreign exchange movements. These higher costs were partly offset by favourable year-on-year other interest income, with benefits from interest on pension and other post-employment benefit (OPEB) liabilities and increased capitalised interest. The effective interest rate for continuing operations of 4.4% is 120bps higher than the prior year rate.

#### Joint ventures and associates

The Group's share of net profits from joint ventures and associates on a statutory basis increased by £79 million, benefitting from £37 million favourable year-on-year derivative remeasurements. On an adjusted basis, the share of net profits from joint ventures and associates increased by £42 million compared with 2021/22, mainly as a result of BritNed, with higher revenues driven by higher auction prices plus the impact of a two-month outage in the prior year, partly offset by Nemo Link as a result of interconnector cap adjustments and an adverse year-on-year contribution from our joint venture investments in NG Partners as a result of downward market fair value movements.

#### Tax

The underlying effective tax rate (excluding joint ventures and associates) of 23.1% was 120bps lower than last year (2022: 24.3%). This reflects the lower tax charge in 2022/23 for the remeasurement of state deferred taxes following the sale of our Rhode Island business. The Group's tax strategy is detailed later in this review.

### Discontinued operations

On 31 January 2023, we sold 60% of our interest in the UK Gas Transmission and Metering business in exchange for £4.0 billion cash consideration and a 40% retained interest in that business (now called National Gas Transmission). The £4.8 billion gain on disposal is excluded from the numbers in the table below. The 60% interest in National Gas Transmission is owned by a consortium of Macquarie Infrastructure and Real Assets and British Columbia Investment Management Corporation. The consortium holds an option to acquire our remaining 40% interest. Further details are provided in the 'assets held for sale' note to the financial statements. The results of our 100% share of this business (including metering) are presented as 'discontinued operations' in 2021/22 and for the 10 months fully owned to 31 January 2023. On 31 August 2021, the 100% share of the business met the IFRS 5 criteria to be classified as held for sale and depreciation was stopped from that date. The retained 40% has also been classified as a business held for sale with no further profits recognised in 2022/23.

#### UK Gas Transmission (including metering)

£m	2022/23	2021/22	Change
Revenue	1,604	1,374	17%
Operating costs	(889)	(737)	21%
<b>Statutory operating profit</b>	<b>715</b>	637	12%
Exceptional items	(1)	17	n/m
<b>Adjusted operating profit</b>	<b>714</b>	654	9%
Timing	(12)	80	n/m
<b>Adjusted operating profit (excluding timing)</b>	<b>702</b>	734	(4)%
<b>Analysed as follows:</b>			
Net revenue	946	977	(3)%
Regulated controllable costs	(146)	(160)	(9)%
Post-retirement benefits	(17)	(17)	—%
Other operating costs	(69)	(55)	25%
Depreciation and amortisation	—	(91)	(100)%
<b>Adjusted operating profit</b>	<b>714</b>	654	9%
Timing	(12)	80	n/m
<b>Adjusted operating profit (excluding timing)</b>	<b>702</b>	734	(4)%

UK Gas Transmission statutory operating profit increased £78 million in the year. In 2022/23, there was a £1 million credit (2022: £14 million) of costs incurred in separating the business from the Group and transaction-related costs in preparation of the sales process; and the prior year also included £3 million of exceptional costs related to the reorganisation and cost efficiency programme. Timing net over-recoveries of £12 million arose in 2022/23, mainly related to higher gas prices and under-recovery of shrinkage costs from higher gas prices and under-collection of pass-through cost true-ups including inflation. This compared with under-recoveries of £80 million in the prior year which also mainly related to recovery of shrinkage costs from higher gas prices.

Despite UK Gas Transmission being fully owned for only 10 months of the current year, adjusted operating profit increased by £60 million (9%), as this included a year-on-year £92 million favourable timing movement. Excluding the impact of timing, underlying operating profit decreased by 4%. The prior year also included £91 million of depreciation to 31 August 2021 when the business was classified as held for sale. Net revenue (excluding timing) was £123 million lower, reflecting the shorter period of ownership partly offset by the impact of higher inflation and an increase in revenues for customer-funded works. Regulated controllable costs (including pensions) and other costs were £14 million lower as a result of two months' less ownership in 2022/23 offset by increased customer-funded works, cyber and decommissioning costs.

Within UK Gas Transmission, our non-regulated metering business's operating profit of £129 million was lower than the prior year mainly impacted by a shorter period of ownership in 2022/23.

The table in this section excludes the £4.8 billion gain on the disposal of our UK Gas Transmission business.



### Capital investment, asset growth and Value Added

These performance metrics are all non-GAAP measures. Value Added is a measure that reflects the value to shareholders of our dividend and the growth in National Grid's regulated and non-regulated assets (as measured in our regulated asset base, for regulated entities), net of the growth in overall debt. It is a key metric used to measure our performance and underpins our approach to sustainable decision-making. Value Growth, which is derived from Value Added (but using long-run inflation assumptions) forms part of our long-term management incentive arrangements.

#### Capital investment

Capital investment comprises capital expenditure in critical energy infrastructure, equity investments, funding contributions and loans to joint ventures and associates and, in the case of National Grid Partners, investments in financial assets.

£m	At actual exchange rates			At constant currency		
	2022/23	2021/22	Change	2022/23	2021/22	Change
UK Electricity Transmission	1,303	1,195	9%	1,303	1,195	9%
UK Electricity Distribution	1,220	899	36%	1,220	899	36%
UK Electricity System Operator	108	108	—%	108	108	—%
New England <sup>1</sup>	1,677	1,561	7%	1,677	1,731	(3)%
New York	2,454	1,960	25%	2,454	2,174	13%
National Grid Ventures	906	913	(1)%	906	968	(6)%
Other activities	72	103	(30)%	72	113	(36)%
<b>Continuing<sup>1</sup></b>	<b>7,740</b>	<b>6,739</b>	<b>15%</b>	<b>7,740</b>	<b>7,188</b>	<b>8%</b>
Discontinued	301	261	15%	301	261	15%
<b>Total Group</b>	<b>8,041</b>	<b>7,000</b>	<b>15%</b>	<b>8,041</b>	<b>7,449</b>	<b>8%</b>

1. New England capital investment for 2022/23 includes £53 million of additions for NECO, which, although part of continuing operations, is also classified as an 'asset held for sale' under IFRS. As such it is not included within additions to PP&E and intangibles in notes 2, 12 and 13 to the financial statements. Group capital expenditure for continuing operations excluding NECO additions for 2022/23 was £7,431 million (2022: £6,185 million).

Capital investment in UK Electricity Transmission increased by £108 million compared with 2021/22, primarily due to LPT2, overhead line projects including Cottam to Wymondley, East Coast onshore projects and capitalised interest, partly offset by lower Hinkley Seabank spend. UK Electricity Distribution increased by £321 million primarily due to a full year of ownership alongside increased customer-driven connection activities. In New England, capital investment increased by £116 million (£54 million reduction on a constant currency basis) primarily due to the disposal of our Rhode Island business during 2022/23 resulting in a £280 million reduction (at constant currency), partially offset by higher spend on gas assets, including the gas system enhancement plan, and increased reinforcement of electricity networks. In New York, capital investment was £280 million higher on a constant currency basis (£494 million higher at actual currency), primarily due to increased electricity network reinforcement, right of use asset additions (non-cash leases entered into in 2022/23) including renewing the Volney-Marcy transmission line lease, increased digital and increased security investment, partially offset by lower leak-prone pipe replacement work in our gas businesses, following the acceleration in 2021/22. Capital investment in NGV decreased by £7 million (£62 million lower at constant currency), with higher expenditure in IFA following the fire in September 2021 and also in Grain LNG, being more than offset by lower NSL interconnector investment (commissioned in 2021/22) and no recurrence of last year's investment in an over 3 GW potential offshore wind seabed lease in New York. Other activities' capital investment reduced primarily as a result of lower investments in National Grid Partners.

In UK Gas Transmission, capital investment increased by £40 million from continued investment at Peterborough and Huntingdon compressor stations, higher capitalised interest and higher cyber spend compared with 2021/22.

#### Asset growth

A key part of our investor proposition is growth in our regulated asset base. The regulated asset base is a regulatory construct, representing the invested capital on which we are authorised to earn a cash return. By investing efficiently in our networks, we add to our regulatory asset base over the long term and this in turn contributes to delivering shareholder value. Our regulated asset base comprises our regulatory asset value (RAV) in the UK, plus our rate base in the US. We also invest in related activities that are not subject to network regulation and this further contributes to asset growth.

In total, asset growth for the Group in 2022/23 was 11.4% (2022: 8.7%). Asset growth is a non-GAAP measure, which tracks the overall increase in assets (excluding foreign exchange movements and the impact of portfolio-repositioning transactions) using a combination of UK RAV and US rate base for our regulated businesses and IFRS balances for our non-regulated businesses. Asset growth excludes the impact of the reduction in RAV, rate base and other assets as a result of the disposal of our NECO and UK Gas Transmission and Metering businesses during 2022/23. A detailed calculation of asset growth is provided on pages 251 to 252.

In terms of asset growth by business sector, UK RAV growth was 11.5% (2022: 10.7%) including the impact of higher CPIH and RPI inflation on RAV indexation, partly offset by RAV depreciation. US rate base grew strongly by 8.0% (2022: 7.2%), with the higher level of capital expenditure under US GAAP resulting in increased rate base at March 2023. Non-regulated businesses growth was 26% (2022: 6%) mainly as a result of in-year performance and ongoing investment in NGV, the site disposals in our property business and cash payments for the offshore wind seabed lease, partly offset by the impact of the sale of our interest in the Millennium associate during the year.

#### Value Added, Value Added per share and Value Growth

Detailed calculations of Value Added are provided on pages 251 to 252 and in 2022/23 exclude the reduction in assets and reduction in net debt as a consequence of the sale of NECO and the sale of 60% of the UK Gas Transmission and Metering business.

Value Added, which reflects the key components of value delivery to shareholders (i.e. dividend and growth in the economic value of the Group's assets, net of growth in net debt) was £4.8 billion in 2022/23. This was higher than last year's £3.8 billion, driven by higher RAV indexation in UK Electricity Transmission and UK Electricity Distribution, stronger NGV and Other performance, higher US returns and a smaller adverse impact from COVID-19 compared with 2021/22, offset by higher interest. Of the £4.8 billion Value Added, £1.6 billion was paid to shareholders as cash dividends and £3.2 billion was retained in the business. Value Added per share was 131.4p compared with 106.5p in 2021/22. Value Growth is normalised for long-run inflation assumptions by adjusting Value Added for the difference between actual experienced inflation on UK RAV indexation and index-linked debt and the equivalent movements at a long-run assumed inflation rate of 2% CPIH or 3% RPI, and dividing this result by the equity base used to calculate Group RoE (at closing exchange rates). Value Growth was 12.4% compared with 12.8% in 2021/22.

## Cash flow, net debt and funding

Net debt is the aggregate of cash and cash equivalents, borrowings, current financial and other investments and derivatives (excluding commodity contract derivatives) as disclosed in note 29 to the financial statements. 'Adjusted net debt' used for the RCF/adjusted net debt calculation is principally adjusted for pension deficits and hybrid debt instruments. For a full reconciliation see page 245. The following table summarises the Group's cash flow for the year, reconciling this to the change in net debt.

### Summary cash flow statement

£m	2022/23	2021/22	Change
Cash generated from continuing operations	6,432	5,788	11%
Cash capital investment (net of disposals and exceptional insurance recoveries)	(7,167)	(5,781)	(24)%
Disposal of Millennium/St William	497	413	20%
Dividends from JVs and associates	190	166	14%
<b>Business net cash (outflow)/inflow from continuing operations</b>	<b>(48)</b>	586	n/m
Net interest paid	(1,365)	(1,013)	(35)%
Net tax paid	(89)	(298)	70%
Cash dividends paid	(1,607)	(922)	(74)%
Other cash movements	17	30	(43)%
<b>Net cash outflow (continuing)</b>	<b>(3,092)</b>	(1,617)	(91)%
Disposal of UK Gas Transmission and Metering and NECO <sup>1</sup>	6,995	—	n/m
Acquisition of National Grid Electricity Distribution <sup>2</sup>	—	(7,837)	100%
Discontinued operations	(9)	657	n/m
(Repayment of)/proceeds from bridge loan to acquire National Grid Electricity Distribution	(8,200)	8,200	n/m
Other, including net financing raised in year	4,271	628	n/m
<b>(Decrease)/increase in cash and cash equivalents</b>	<b>(35)</b>	31	n/m
<b>Reconciliation to movement in net debt</b>			
(Decrease)/increase in cash and cash equivalents	(35)	31	n/m
Bridge loan to acquire National Grid Electricity Distribution	8,200	(8,200)	n/m
Less: other net cash flows from investing and financing transactions	(4,271)	(628)	n/m
Net debt reclassified to held for sale	—	4,063	(100)%
Fair value of National Grid Electricity Distribution net debt acquired	—	(8,147)	100%
Impact of foreign exchange movements on opening net debt	(1,293)	(828)	(56)%
Other non-cash movements	(765)	(554)	(38)%
Decrease/(increase) in net debt	1,836	(14,263)	n/m
Net debt at start of year	(42,809)	(28,546)	(50)%
<b>Net debt at end of year</b>	<b>(40,973)</b>	(42,809)	4%

1. Cash proceeds of £3,081 million for NECO and £4,032 million for UK Gas Transmission, less balance of cash and cash equivalents disposed with these businesses.

2. Includes £44 million cash and cash equivalents acquired with National Grid Electricity Distribution.

Cash flow generated from continuing operations was £6.4 billion, £644 million higher than last year, mainly due to a full-year contribution from UK Electricity Distribution, higher revenues compared with 2021/22, lower spend on provisions and higher net exceptional income, offset by favourable working capital inflows on payables. Cash expended on investment activities increased as a result of continued organic growth in our regulated and non-regulated businesses, partly offset by the disposal of financial investments.

Our strategic pivot is complete with the sale of NECO in May 2022 generating £3,081 million of proceeds (less £40 million financing costs) and the sale of 60% of the UK Gas Transmission and Metering business in January 2023 generating £4,032 million of proceeds. The disposal of our Millennium Pipeline investment in October 2022 also generated £497 million of proceeds in 2022/23. In the prior year, the sale of the St William joint venture generated £413 million of proceeds. Net interest paid increased as a result of a higher average level of net debt and increased base rates on borrowings. The Group made net tax payments of £89 million for continuing operations during 2022/23. The higher cash dividend of £1,607 million reflected a lower scrip uptake of 15% (2022: 48%). In the prior year, the cash acquisition of WPD in June 2021 for £7.9 billion increased net debt, along with a further £8.1 billion increase from the fair value of net debt acquired.

Discontinued operations represents the UK Gas Transmission and Metering business which generated lower cash inflows in 2022/23, principally as a result of a shorter period of ownership, higher capital expenditure and adverse working capital movements, partly offset by favourable timing movements, lower tax payments and other investing activities compared with 2021/22. Non-cash movements primarily reflect changes in the sterling-dollar exchange rate, accretions on index-linked debt, lease additions and other derivative fair value movements, offset by the amortisation of fair value adjustments on the debt acquired with WPD.

During the year we raised over £7 billion of new long-term senior debt to refinance maturing debt and to fund a portion of our significant capital programme. The new bonds issued include further borrowings under our Green Financing Framework. The £8.2 billion bridge financing facility to fund the purchase of the UK Electricity Distribution business was fully repaid in 2022/23 following receipt of proceeds from the sales of NECO and a 60% stake in our UK Gas Transmission and Metering business.

As at 18 May 2023, we have £8.0 billion of undrawn committed facilities available for general corporate purposes, all of which have expiry dates beyond May 2024. National Grid's balance sheet remains robust, with strong overall investment grade ratings from Moody's, Standard & Poor's (S&P) and Fitch.

The Board has considered the Group's ability to finance normal operations as well as funding a significant capital programme, taking account of the disruption caused by the energy crisis. This includes stress testing of the Group's finances under a 'reasonable worst-case' scenario, assessing the timing of the sale of businesses held for sale and the further levers at the Board's discretion to ensure our businesses are adequately financed. As a result, the Board has concluded that the Group will have adequate resources to do so.

### Financial position

The following table sets out a condensed version of the Group's IFRS balance sheet.

#### Summary balance sheet

£m	31 March 2023	31 March 2022	Change
Goodwill and intangibles	13,451	12,804	5%
Property, plant and equipment	64,433	57,532	12%
Assets and liabilities held for sale	1,334	2,812	(53)%
Other net liabilities	(618)	(334)	85%
Tax balances	(7,374)	(6,685)	10%
Net pension assets	1,951	3,075	(37)%
Provisions	(2,642)	(2,539)	4%
Net debt	(40,973)	(42,809)	(4)%
<b>Net assets</b>	<b>29,562</b>	<b>23,856</b>	<b>24%</b>

Goodwill and intangibles increased mainly as a result of changes in exchange rates during the year. Property, plant and equipment increased mainly as a result of the continuing capital investment programme and exchange rate movements. Assets held for sale at 31 March 2022 comprised assets and liabilities of NECO and the UK Gas Transmission and Metering business both of which were sold during 2022/23 (see note 10 to the financial statements) and at 31 March 2023 comprised the retained 40% minority interest in National Gas Transmission. Tax balances increased principally from accelerated tax depreciation from ongoing capital investment, movements in other net temporary differences and the impact of exchange rate movements. Net pension assets decreased in both the US and UK as a result of lower asset valuations from investment returns, partly offset by a decrease in liabilities from higher discount rates and foreign exchange movements. Provisions were higher principally as a result of increases in environmental and other provisions and foreign exchange movements. Other movements are largely explained by net working capital inflows and changes in the sterling-dollar exchange rate.

Regulatory gearing, measured as net debt as a proportion of total regulatory asset value and other business invested capital reduced significantly in the year to 71% as at 31 March 2023. This was lower than the previous year-end level of 81% principally as a result of the sale of the UK Gas Transmission and Metering business for £4 billion in January 2023 along with £3 billion proceeds from the sale of NECO in May 2022. Taking into account the benefit of our hybrid debt, adjusted gearing as at 31 March 2023 was 69%, which we believe is a level appropriate for the current overall Group credit rating of BBB+/Baa1 (S&P/Moody's).

Retained cash flow as a proportion of adjusted net debt was 9.3%, up 40bps from 2021/22 and comfortably above the long-term average level of 7.0% indicated by Moody's, as consistent with maintaining our current Group rating.

#### Off-balance sheet items

There were no significant off-balance sheet items other than the commitments and contingencies detailed in note 30 to the financial statements. Further information in respect of certain of the Group's energy purchase contracts and commodity price risk is disclosed in note 32(f) to the financial statements.

#### Economic returns

In addition to Value Added, one of the principal ways in which we measure our performance in generating value for shareholders is to divide regulated financial performance by regulatory equity, to produce RoE.

As explained on page 246, regulated financial performance adjusts reported operating profit to reflect the impact of the Group's various regulatory economic arrangements in the UK and US. In order to show underlying performance, we calculate RoE measures excluding exceptional items of income or expenditure.

Group RoE is used to measure our performance in generating value for our shareholders by dividing regulated and non-regulated financial performance, after interest and tax, by our measure of equity investment in all our businesses, including the regulated businesses, NGV and Other activities and joint ventures. Group RoE includes our UK Gas Transmission and Metering and NECO businesses up to the date these were sold.

Regulated RoEs are measures of how the businesses are performing compared with the assumptions and allowances set by our regulators. US jurisdictional and UK entity regulated returns are calculated using the capital structure assumed within their respective regulatory arrangements and, in the case of the UK, assuming inflation of 3% RPI under RIIO-1 and 2% CPIH under RIIO-2. As these assumptions differ between the UK and the US, RoE measures are not directly comparable between the two geographies. In our performance measures, we compare achieved RoEs to the level assumed when setting base rate and revenue allowances in each jurisdiction.

#### Return on Equity (RoE)

%	2022/23	2021/22	Change
UK Electricity Transmission	7.5%	7.7%	-20bps
UK Electricity Distribution	13.2%	13.6%	-40bps
UK Gas Transmission	7.8%	7.8%	—bps
New England	8.3%	8.3%	—bps
New York	8.6%	8.8%	-20bps
Group RoE	11.0%	11.4%	-40bps

In 2022/23, UK Electricity Transmission achieved operational returns of 7.5%, 120bps higher than base allowed return under RIIO-2, mainly from totex performance related to savings on capital delivery (2022: 7.7% achieved return, or 140bps above the allowed base return). UK Electricity Distribution achieved an operational return of 13.2% in 2022/23 under RIIO-1, or 360bps outperformance, mostly as a result of strong incentives performance, but also totex outperformance driven by efficient capital expenditure (2022: 13.6% achieved return, or 400bps above the allowed base return). For the 10 months owned in 2022/23, UK Gas Transmission achieved estimated operational returns of 7.8%, 120bps higher than allowed, from totex outperformance, driven by cost efficiencies and incentives (2022: 7.8% achieved return, or 120bps above the allowed base return).

New England's achieved return of 8.3% was 84% of the allowed return of 9.9% in 2022/23 as a result of higher IT costs, workforce costs and penalties being broadly offset by higher rates and remained in line with the achieved return of 8.3% of the allowed return in 2021/22. New York's achieved return of 8.6% was 96% of the allowed return of 8.9% in 2022/23. This was a reduction compared with an achieved return of 8.8% in 2021/22, as a result of the non-recurrence of a property tax rebate in 2021/22 and higher IT costs. The quoted returns for New England and New York represent the weighted average return across operating companies within each jurisdiction. In 2020/21 US RoE was significantly impacted by high levels of bad debt as a result of COVID-19 and restrictions placed on collection activities as a result. We made an adjustment to US RoE at the time, reflecting our expectation for future recovery of the debt costs. In 2022/23 we received approval to establish regulatory assets to recover the COVID-19 arrears; as such we have reversed the previous adjustment to US RoE. As a result, the net impact of COVID-19-related bad debt costs and associated recoveries on our New England and New York RoEs is broadly neutral in 2022/23.

Overall Group RoE, which incorporates NGV, property, corporate and other activities, plus financing and tax performance was 11.0%.

## Tax transparency

As a responsible taxpayer, we have voluntarily included additional tax disclosures, which we believe are of significant interest to many of our stakeholders. For information on the Company's activities, please see page 3 and for a definition of discontinued operations, please see note 10 to the financial statements.

### Tax strategy

National Grid is a responsible taxpayer. Our approach to tax is consistent with the Group's broader commitments to doing business responsibly and upholding the highest ethical standards. This includes managing our tax affairs, as we recognise that our tax contribution supports public services and the wider economy. We endeavour to manage our tax affairs so that we pay and collect the right amount of tax, at the right time, in accordance with the tax laws in all the territories in which we operate. We will claim valid tax reliefs and incentives where these are applicable to our business operations, but only where they are widely accepted through the relevant tax legislation such as those established by government to promote investment, employment and economic growth. We do not have operations in tax havens or low-tax jurisdictions without commercial purpose.

We have a strong governance framework and our internal control and risk management framework helps us manage risks, including tax risk, appropriately. We take a conservative approach to tax risk. However, there is no prescriptive level or pre-defined limit to the amount of acceptable tax risk.

Our financial statements have been audited. The figures in the tax transparency disclosures in the Annual Report and Accounts have been taken from our financial systems, which are subject to our internal control framework.

We act with openness and honesty when engaging with relevant tax authorities and seek to work with tax authorities on a real-time basis. We engage proactively in developments of external tax policy and engage with relevant bodies where appropriate. Ultimate responsibility and oversight of our tax strategy and governance rests with the Finance Committee, with executive management delegated to our Chief Financial Officer who oversees and approves the tax strategy on an annual basis. For more detailed information, please refer to our published global tax strategy on our website.

### Country-by-country reporting summary

We have disclosed in the table below data showing the scale of our activities in each of the countries we operate in. This allows our stakeholders to see the profits earned, taxes paid and the context of those payments. The Group's entities are tax resident in their jurisdiction of incorporation other than where indicated in the footnotes to note 34 to the financial statements.

2022/23	Revenue			Profit/(loss) before income tax <sup>3</sup> £m	Income tax accrued – current year <sup>4</sup> £m	Tangible assets/(liabilities) other than cash and cash equivalents <sup>5</sup> £m
	Unrelated party <sup>1</sup> £m	Related party <sup>2</sup> £m	Total £m			
United Kingdom	11,215	111	11,326	2,729	175	30,001
United States	12,048	58	12,106	1,269	225	34,432
Isle of Man	—	32	32	(35)	—	—
Luxembourg	—	—	—	—	—	—
Netherlands	—	—	—	—	—	—
Guernsey	—	5	5	—	—	—
<b>Total</b>	<b>23,263</b>	<b>206</b>	<b>23,469</b>	<b>3,963</b>	<b>400</b>	<b>64,433</b>

2021/22	Revenue			Profit/(loss) before income tax <sup>3</sup> £m	Income tax accrued – current year <sup>4</sup> £m	Tangible assets/(liabilities) other than cash and cash equivalents <sup>5</sup> £m
	Unrelated party <sup>1</sup> £m	Related party <sup>2</sup> £m	Total £m			
United Kingdom	9,165	122	9,287	2,501	290	27,846
United States	10,646	45	10,691	1,395	6	29,686
Isle of Man	—	18	18	(48)	—	—
Luxembourg	—	—	—	—	—	—
Netherlands	—	33	33	—	—	—
Guernsey	—	4	4	—	—	—
<b>Total</b>	<b>19,811</b>	<b>222</b>	<b>20,033</b>	<b>3,848</b>	<b>296</b>	<b>57,532</b>

1. Unrelated party revenue comprises revenue from continuing operations of £21,659 million (2022: £18,449 million) (see consolidated income statement) and revenue from discontinued operations of £1,604 million (2022: £1,362 million) (see note 10 to the financial statements).
2. Related party revenue only includes cross-border transactions and comprises related party revenue from continuing operations of £206 million (2022: £189 million) and related party revenue from discontinued operations of £nil (2022: £33 million).
3. Profit/(loss) before income tax (PBT) from operations after exceptionals comprises continuing operations PBT of £3,590 million (2022: £3,441 million) (see consolidated income statement) and discontinued operations PBT of £373 million (2022: £407 million) (see note 10 to the financial statements).
4. Current year income tax accrued comprises current year income tax from continuing operations of £386 million (2022: £261 million) (see note 7 to the financial statements) and current year income tax from discontinued operations of £14 million (2022: £35 million). See the tax charge to tax paid reconciliation below for further information.
5. Tangible assets comprises property, plant and equipment (see consolidated statement of financial position) and excludes tangible fixed assets for businesses disposed of during the year (classified as held for sale in the prior year) of £8,344 million (UK Gas Transmission £4,981 million, NECO £3,363 million) (2022: UK Gas Transmission £4,719 million, NECO £3,173 million) (see note 10 to the financial statements).

Our Hong Kong entity is UK tax resident and is now in liquidation and our entities in Australia and Canada are dormant. Our entity in Ireland was dissolved during the year. Therefore, those jurisdictions have not been included in the table above.

Our Isle of Man and Guernsey companies are captive insurance companies which are treated as controlled foreign companies for UK tax purposes and as such UK corporation tax is paid on their profits. In the Netherlands, we historically had a finance company which borrowed money externally and on-lent it to another Group company. Both loans have now been settled and the company was dissolved during the year.

Our presence in Luxembourg is to address a historical nationalisation risk which arose from a Labour Party proposal in 2019 to nationalise nearly all of National Grid's UK assets.

Transfer pricing is not a significant issue for the Group since there are limited transactions between Group companies, but any transactions between related parties are made on an arm's-length basis and aligned to the Organisation for Economic Co-operation and Development (OECD) principles.



## Financial review continued

### Group's total tax charge to tax paid

The total tax charge for the year disclosed in the financial statements in accordance with accounting standards and the equivalent total corporate income tax paid during the year will differ.

The principal differences between these two measures are as follows:

#### Reconciliation of Group's total tax charge to tax paid (continuing and discontinued)

£m	2022/23	2021/22
<b>Total Group tax charge<sup>1</sup></b>	<b>969</b>	1,494
Adjustment for Group non-cash deferred tax	(579)	(1,233)
Adjustments for Group current tax (charge)/credit in respect of prior years	10	35
<b>Group current tax charge</b>	<b>400</b>	296
Group tax instalment payments (repayable)/payable in the following year	—	(1)
Utilisation of tax losses <sup>2</sup>	(218)	—
Tax instalment payments over/(under) paid in the current year	(21)	18
Group tax payment/(refunds) in respect of prior years paid in the current year <sup>3</sup>	(70)	15
Group tax payments relating to tax disclosed elsewhere in the financial statements	1	3
<b>Group tax paid<sup>4</sup></b>	<b>92</b>	331
<b>Profit before income tax<sup>5</sup></b>	<b>3,963</b>	3,848
	%	%
Effective cash tax rate <sup>6</sup>	2.3	8.6
Effective tax rate <sup>7</sup>	24.5	38.8

- Total Group tax charge from operations after exceptionals is comprised of tax charge of continuing operations of £876 million (2022: £1,243 million) and discontinued operations of £93 million (2022: £234 million).
- Relates to US utilisation of tax losses against, primarily, gains on the sale of NECO and Millennium.
- Primarily relates to refunds in respect of US tax settlements for historic years.
- Total Group tax paid is comprised of tax paid for continuing operations of £89 million (2022: £302 million) and discontinued operations of £3 million (2022: £30 million).
- Profit/(loss) before income tax (PBT) from continuing operations after exceptionals is comprised of continuing operations PBT of £3,590 million (2022: £3,385 million) and discontinued operations PBT of £373 million (2022: £407 million).
- Effective cash tax rate for continuing operations after exceptionals is 2.5% (2022: 8.8%) and discontinued operations is 0.8% (2022: 8.1%).
- Effective tax rate for continuing operations after exceptionals is 24.4% (2022: 36.6%) and discontinued operations is 24.9% (2022: 57.5%).

### Effective cash tax rate

The effective cash tax rate for the total Group is 2.3%. The difference between this and the accounting effective rate of 24.5% is due to changes in tax rates impacting deferred tax, together with the following factors.

National Grid is a capital-intensive business, across both the UK and the US, and as such invests significant sums each year in its networks. In 2022/23 the Group's total capital expenditure was £7,785 million. To promote investment, tax legislation allows a deduction for qualifying capital expenditure at a faster rate than the associated depreciation in the statutory accounts. The impact of this is to defer cash tax payments into future years.

In the current period, the US federal taxable income was offset by brought forward Net Operating Losses which primarily arose from deductions for qualifying capital expenditure incurred by National Grid in earlier years. In addition, in 2022/23, a federal tax refund was received relating to net operating loss claims from historical tax years. Hence no significant federal tax payments were made and a net refund resulted in the current period. Moreover, US state and local income tax payments of £27 million (\$33 million) were made during the year.

The Group continued to make payments into the UK defined benefit pension schemes, National Grid UK Pension Scheme, National Grid Electricity Group section of the Electricity Supply Pension Scheme and the Western Power Pension Scheme during the course of the year. These payments have further reduced the overall cash tax paid in the UK.

### Group's total tax contribution

The total amount of taxes we pay and collect globally year-on-year is significantly more than just the tax which we pay on our global profits. To provide a full picture, we have disclosed the Group's global total tax contribution which includes contributions from both continuing and discontinued businesses.

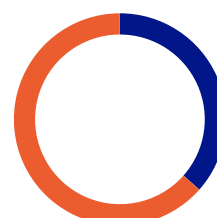
#### Group's total tax contribution 2022/23 (taxes borne/collected)

##### Taxes borne



Key:	£m
◆ People	254
◆ Product	211
◆ Profit	101
◆ Property	1,302
◆ Miscellaneous	24
<b>Total</b>	<b>1,892</b>

##### Taxes collected



Key:	£m
◆ People	792
◆ Product	1,376
<b>Total</b>	<b>2,168</b>

Taxes borne are a cost to the Group; and taxes collected are generated by the operations of the Group and which companies are obliged to administer on behalf of government (e.g. income tax under PAYE, employees' national insurance contributions).

2022/23	Tax contribution					Number of employees <sup>2</sup> as at 31 March 2023
	Income tax paid/(repaid) on cash basis <sup>1</sup> £m	Property taxes £m	Other taxes borne £m	Taxes collected £m	Total tax contribution £m	
United Kingdom	157	305	144	1,435	2,041	14,397
United States	(65)	997	354	733	2,019	16,878
Ireland	—	—	—	—	—	—
Isle of Man	—	—	—	—	—	—
Luxembourg	—	—	—	—	—	—
Netherlands	—	—	—	—	—	—
<b>Total</b>	92	1,302	498	2,168	4,060	31,275

- See the tax charge to tax paid reconciliation above for further information.
- Number of employees is calculated as the total National Grid workforce across all parts of the business, including Non-executive Directors and Executive Directors and employees of the discontinued operations. All are active, permanent employees as well as both full-time and part-time employees.

2021/22	Tax contribution					Number of employees <sup>2</sup> as at 31 March 2022
	Income tax paid/(repaid) on cash basis <sup>1</sup> £m	Property taxes £m	Other taxes borne £m	Taxes collected £m	Total tax contribution £m	
United Kingdom	315	302	114	1,110	1,841	13,424
United States	16	889	328	645	1,878	17,332
Ireland	—	—	—	—	—	—
Isle of Man	—	—	—	—	—	—
Luxembourg	—	—	—	—	—	—
Netherlands	—	—	—	—	—	—
<b>Total</b>	331	1,191	442	1,755	3,719	30,756

- See the tax charge to tax paid reconciliation above for further information.
- Number of employees is calculated as the total National Grid workforce across all parts of the business, including Non-executive Directors and Executive Directors and employees of the discontinued operations. All are active, permanent employees as well as both full-time and part-time employees.

For 2022/23, our total tax contribution globally was £4,060 million (2021/22: £3,719 million), taxes borne were £1,892 million (2021/22: £1,964 million) and taxes collected were £2,168 million (2021/22: £1,755 million). Our total tax contribution has increased in the year primarily due to higher taxes borne in 2022/23 in respect of income taxes paid and other taxes borne and higher taxes collected in relation to indirect taxes.

Two thirds of the tax borne by the Group continues to be in relation to property taxes, of which £997 million are paid in the US across over 1,200 cities and towns in Massachusetts, New Hampshire, New York and Vermont. These taxes are the municipalities principal source of revenue to fund school districts, police and fire departments, road construction and other local services.

In the UK, we participate in The 100 Group's Total Tax Contribution Survey. The survey ranks the UK's biggest listed companies in terms of their contribution to the total UK government's tax receipts. The most recent result of the survey for 2021/22 ranks National Grid as the 14th highest contributor of UK taxes (2020/21: 19th), the 10th highest in respect of taxes borne (2020/21: 15th) and first in respect of capital expenditure (£3,858 million; 2020/21: £1,549 million) on fixed assets (2020/21: third). Our ranking in the survey is proportionate to the size of our business and capitalisation relative to the other contributors to the survey.

However, National Grid's contribution to the UK and US economies is broader than just the taxes it pays over to and collects on behalf of the tax authorities.

Both in the UK and the US we employ thousands of individuals directly. We also support jobs in the construction industry through our capital expenditure, which in 2022/23 was £7,785 million, as well as supporting a significant number of jobs in our supply chain.

Furthermore, as a utility we provide a core essential service which allows the infrastructure of the country/states we operate in to run smoothly. This enables individuals and businesses to flourish and contribute to the economy and society.

### Development of future tax policy

We believe that the continued development of a coherent and transparent tax policy across the Group is critical to help drive growth in the economy.

We continue to engage on consultations with policymakers where the subject matter impacts taxes borne or collected by our business, with the aim of openly contributing to the debate and development of tax legislation for the benefit of all our stakeholders.

To ensure that the needs of our stakeholders are considered in the development of tax policy we are a member of a number of industry groups which participate in the development of future tax policy, such as the Electricity Tax Forum and CBI Employment Taxes Working Group, together with The 100 Group in the UK, which represents the views of finance directors of FTSE 100 companies and several other large UK companies. We undertake similar activities in the US, where the Group is an active member in the Edison Electric Institute, the American Gas Association, the Global Business Alliance, the American Clean Power Association, the Energy Storage Association and the Solar Energy Industries Association.

Feedback from these groups, such as the results of The 100 Group's Total Tax Contribution Survey, helps to ensure that we consider the needs of our stakeholders and are engaged at the earliest opportunity on tax issues which affect our business.

### Pensions

In 2022/23, defined benefit pensions and other post-employment benefit operating costs decreased to £274 million (2022/23: £321 million).

During the year, our pensions and other post-retirement benefit plans decreased from a net surplus position of £3,075 million at 31 March 2022 to a net surplus of £1,951 million at 31 March 2023.

This was principally the result of actuarial losses on plan assets of £5.7 billion (lower investment returns) and actuarial gains on plan liabilities of £4.4 billion (higher discount rates from corporate bond yields and lower long-term RPI inflation expectations). Employer contributions during the year were £284 million (2022: £300 million), including £123 million (2022: £84 million) of deficit contributions. As at 31 March 2023, the total UK and US assets and liabilities and the overall net IAS 19 (revised) accounting surplus (2022: surplus) is shown below. Further information can be found in note 25 to the financial statements.

### Net pension and other post-retirement obligations

£m	UK	US	Total
Plan assets	12,578	8,668	21,246
Plan liabilities	(10,964)	(8,331)	(19,295)
Net surplus	1,614	337	1,951

As at 31 March 2023, we recognised in the statement of financial position pension assets of £21,246 million (UK pensions £12,578 million; US pensions £6,060 million; and US other £2,608 million); and pension liabilities of £19,295 million (UK pensions £10,964 million; US pensions £5,736 million; and US other £2,595 million).

### Dividend

The Board has recommended an increase in the final dividend to 37.60p per ordinary share (\$2.3459 per American Depository Share), which will be paid on 9 August 2023 to shareholders on the register of members as at 2 June 2023. If approved, this will bring the full-year dividend to 55.44p per ordinary share, an increase of 8.8% over the 50.97p per ordinary share in respect of the financial year ended 31 March 2022. This is in line with the increase in average UK CPIH inflation for the year ended 31 March 2023 as set out in our dividend policy. Our aim is to grow the annual dividend per share in line with CPIH, thus maintaining it in real terms. The Board will review this policy regularly, taking into account a range of factors including expected business performance and regulatory developments.

At 31 March 2023, National Grid plc had £14 billion of distributable reserves, which is sufficient to cover more than five years of forecast Group dividends. If approved, the final dividend will absorb approximately £1.4 billion of shareholders' funds. This year's dividend is covered approximately 1.3x by underlying earnings.

The Directors consider the Group's capital structure at least twice a year when proposing an interim and final dividend and aim to maintain distributable reserves that provide adequate cover for dividend payments.

### New accounting standards

We did not adopt any new accounting standards in 2022/23. Amendments to certain existing accounting standards were adopted during the year, but these had no material impact on the Group's results or financial statement disclosures.

### Impact of UK capital allowance change on future years' UK regulatory revenues

In March 2023, the UK government announced changes to UK capital allowances tax legislation effective from April 2023 to March 2026. This is expected to reduce our cash tax payments to HMRC, but is not expected to directly reduce our overall tax charge, with the lower cash tax paid being offset by a corresponding increase in deferred tax liabilities. However, because our UK regulated businesses' revenues include a tax allowance, the increased tax relief from higher capital allowances would result in lower cash tax paid and therefore lower allowed revenues. This is expected to have a significant adverse impact on our UK regulatory businesses' reported underlying results (i.e. no change to the overall tax charge, but lower underlying revenues) from 2023/24 to 2025/26, despite this change being economically neutral to National Grid over the longer term. As part of our results announcement in May 2023, we have provided further information in respect of this change, including the likely impact on future years' results.

### Post balance sheet events

For further details, see note 38 to the financial statements.