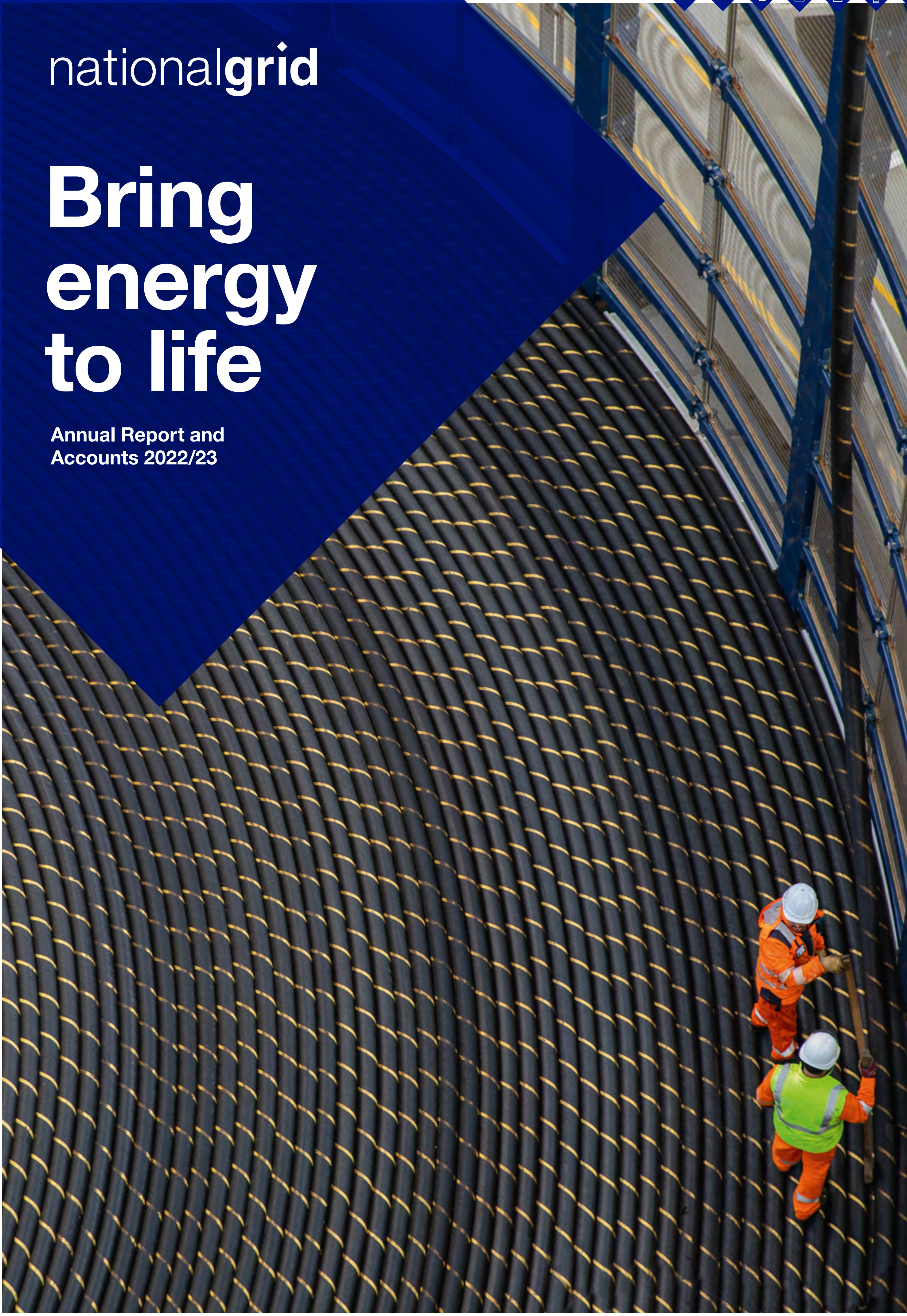
nationalgrid

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

2021/22 60.6
2020/21 37.0

Underlying EPS (p)* A

69.7p

2021/22 65.3
2020/21 42.4

Group Return on Equity (RoE) (%) A

11.0%

2021/22 11.4
2020/21 10.6

* 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

2021/22 0.13
2020/21 0.10

Scope 1 and 2 greenhouse gas emissions

(CO_2 equivalent, million tonnes)

7.2

2021/22 7.8**
2020/21 7.5

Employee engagement (%)

81%

2021/22 81
2020/21 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

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

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

Strategic Report

Corporate Governance

Financial Statements

Additional Information

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

Do the right thing

- 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

Find a better way

- 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

Make it happen

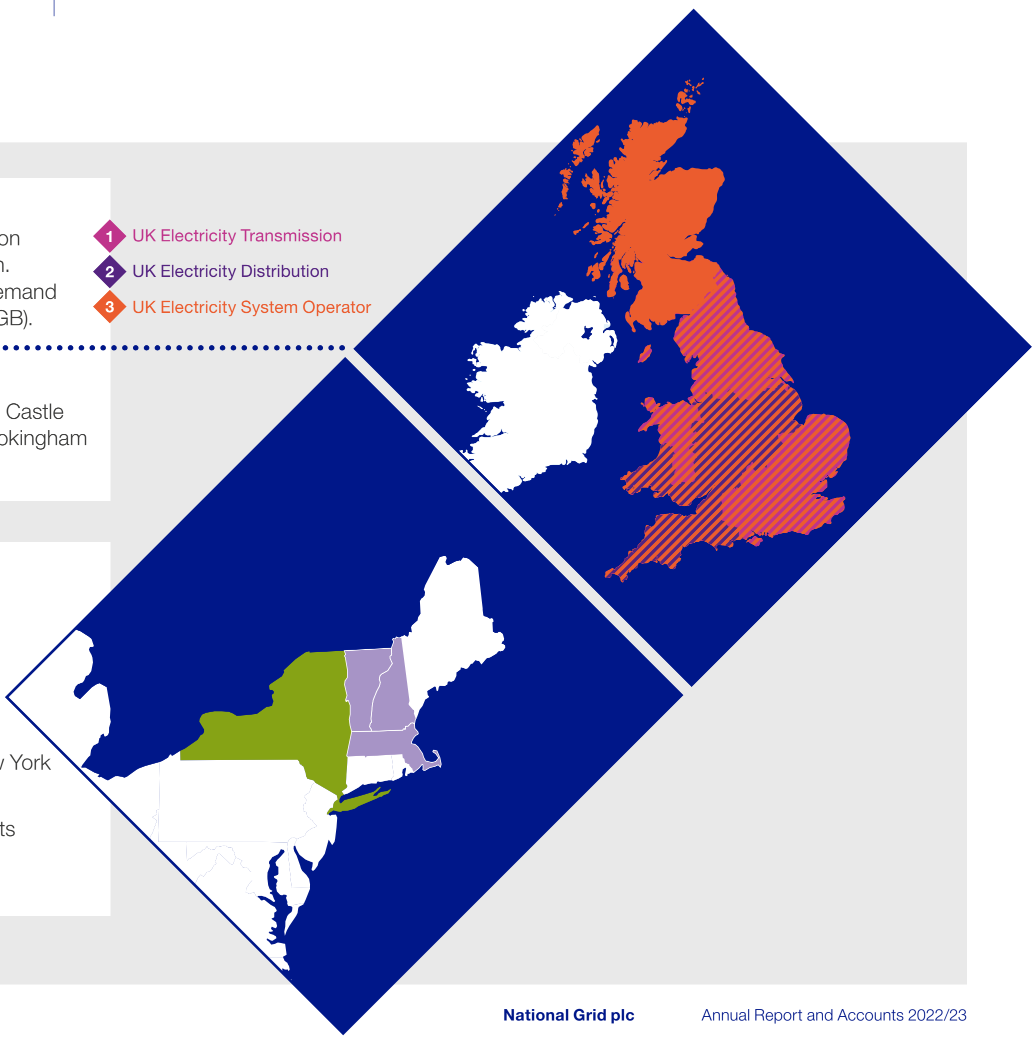
- Embrace the power and opportunity of diversity
- Increase efficiency to help with customer affordability
- Work with others to find solutions for customers
- Commit to learning and new ideas

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).



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

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 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)

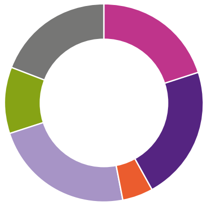
NGV, which operates separately from our core regulated units, is focused on competitive markets across the UK and US. Its portfolio includes electricity interconnectors, liquefied natural gas (LNG) storage and regasification, large-scale renewable generation, conventional generation and competitive transmission.

7 Other activities

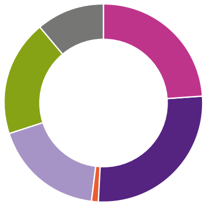
Other activities primarily relate to National Grid Partners (NGP), the venture investment and innovation arm of National Grid, as well as UK property, insurance and corporate activities.

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

Statutory operating profit (%)



Underlying operating profit (%) A

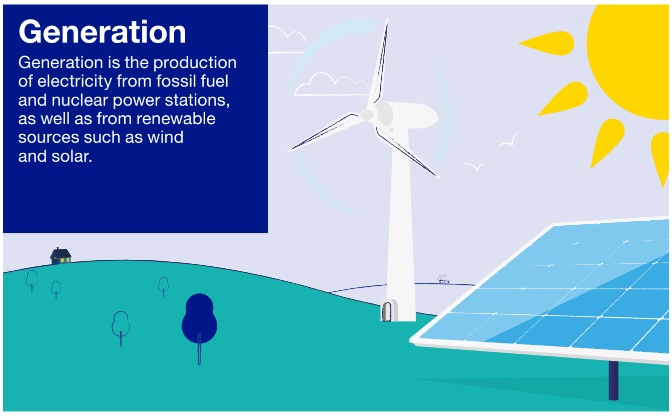


Delivering energy to consumers

Watch our online video of how we deliver energy

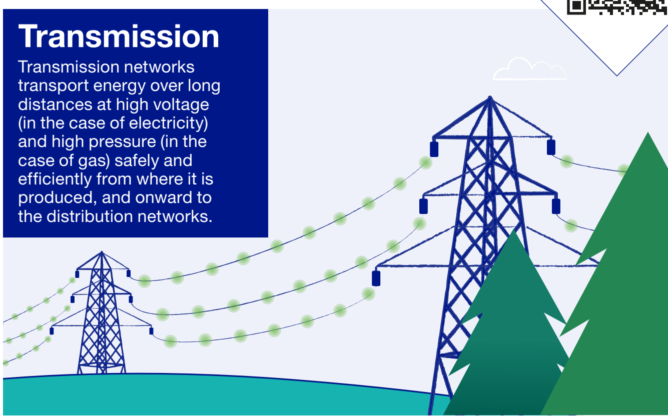
Generation

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



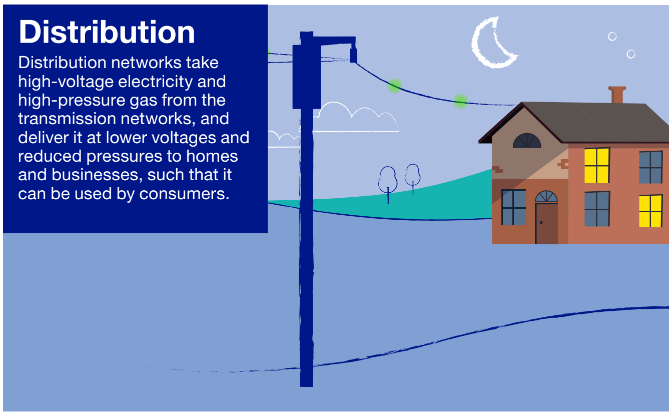
Transmission

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.

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.

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.

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.

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**

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.

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.

J Pettigrew

John Pettigrew
Chief Executive

UK ET highlights: 1

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: 2

Our new price control, RIIO-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: 3

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: 4

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: 5

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: 6

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.

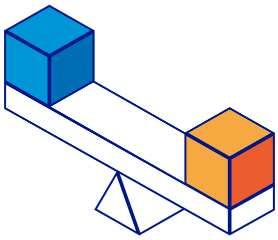
At Viking Link we have seen the completion of onshore cable works and the converter hall in Denmark, with the project still on track to become operational in early 2024.

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

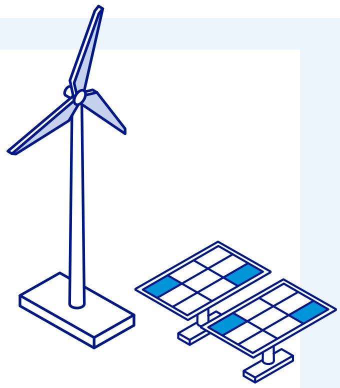


+£3bn

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

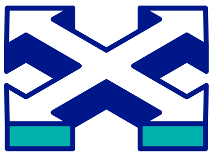
- We have launched support funds in the UK (£50 million) and US ($17 million) to ease the financial burden that households will face as a result of increasing energy prices.
- We are deploying innovative solutions to increase the capacity of our transmission equipment. For example, we expect to save 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 predicative 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**

	Enable the energy transition for all	Deliver for customers efficiently
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. **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	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:** • 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_2 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_6 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 trialled 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.

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.

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.

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.

Business environment **pages 10 – 11**

Our KPIs **pages 14 – 17**

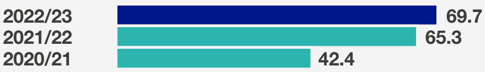
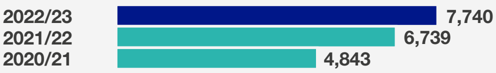
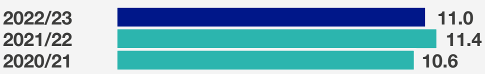
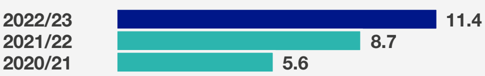
Our key performance indicators (KPIs)

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

Links to strategy

- **Enable the energy transition for all**
- **Deliver for customers efficiently**
- **Grow our organisational capability**
- **Empower colleagues for great performance**

Financial measures

Strategy link	KPI and performance	Progress in 2022/23
Deliver for customers efficiently	**Underlying EPS (£m)** A 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. Our target is to grow Underlying EPS by 6-8% CAGR over a five-year period to March 2026.  new KPI	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. 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.
Enable the energy transition for all	**Group capital investment (£m)** A 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.  new KPI	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.
Enable the energy transition for all	**Green capital investment (£m)** A 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. 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. Our target is to deliver the current market guidance of £29 billion in green capital investment by 2025/26.  new KPI	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.
Deliver for customers efficiently	**Group RoE (%)** A 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. Target: 9.5% – 10.75% each year 	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).
Deliver for customers efficiently	**Total regulated asset growth (%)** A 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. Target: 8 – 10% CAGR asset growth (2021/22 – 2025/26) 	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. 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.

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.

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.

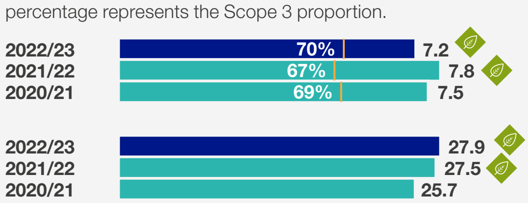
Non-financial measures

Strategy link	KPI and performance	Progress in 2022/23
	Climate change – Scope 1, 2 and 3 emissions*	Our Scope 1 GHG emissions for 2022/23 equate to 4.4 million tonnes of CO_2 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_2 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_2 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.

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_2 equivalent.

The total figures in the chart below are in million tonnes of CO_2 equivalent and the percentage represents the Scope 3 proportion.



* 2021/22 data has been adjusted in line with the disposal of UK Gas Transmission and Metering and Rhode Island, and the acquisition of UK ED.

You can read more about the Task Force on Climate-related Financial Disclosures (TCFD) and our wider sustainability activities and performance on **pages 38 – 51**.

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.

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	**99.99997**	99.99993	99.99997
UK ED	**99.99453**	99.99469	99.99455
NE Electricity Transmission	**99.95212**	99.97636	99.95428
NY Electricity Transmission	**99.97189**	99.95261	99.95429
NE Electricity Distribution	**99.96824**	99.92725	99.91239
NY Electricity Distribution	**99.92384**	99.95681	99.92788
Interconnector availability			
IFA interconnector	**51.7**	61.3	95.4
IFA2 interconnector	**95.7**	90.4	96.5
BritNed interconnector	**99.9**	80.4	75.1
NSL interconnector	**86.7**	63.3	–
Nemo Link interconnector	**98.1**	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)	**7.2**	7.8	8.4	8.0
ESO (/10)	**7.3**	7.3	7.5	8.15
UK ED (/10)	**8.99**	9.03	9.18	–
NE residential — Customer Trust Advice survey (%)	**50.5**	59.8	63.3	–
NY residential — Customer Trust Advice survey (%)	**58.9**	64.3	68.1	–

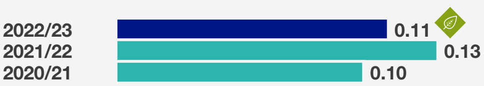
UK ET's score is a result of a combination of pressures with the existing Regulatory Connections Framework, a dramatic uplift in volumes of customer applications, interactive issues of market design and lack of contractual discipline and investment linked to individual customers. We are actively lobbying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

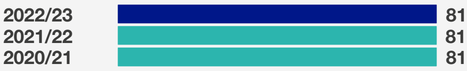


As at 31 March 2023, our LTIFR was 0.11, which is higher than the Group target of 0.10. This is a combined employee and contractor LTI rate, which reflects our continued focus on encouraging good safety behaviours across the entire workforce. The current year result excludes our former Rhode Island and 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
	Employee engagement index (%) 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. 	We measure employee engagement through our employee engagement survey called Grid:voice. Our engagement score was 81%.
	Workforce diversity (%) – ethnicity 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). 	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.
	Workforce diversity (%) – gender 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). 	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.

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.£29bn

green[2], aligning to EU Taxonomy

c.£9bn

UK ET

c.£6bn

UK ED

c.£12bn

New York Regulated

c.£9bn

New England Regulated

c.£3-4bn

NGV

Group asset growth

8-10%

CAGR[3]

Underlying EPS

6-8%

CAGR[3]

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

- **Future scenarios (strategy)**
- **Horizon scanning**
- **Emerging risks**

- **Emerging risk assessments**

- **Reporting of emerging risk watchlists, radar and risk management**

- **Assessment outcomes determine how we will manage the emerging risk (watch, monitor, manage)**

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
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. *Risk trend: Neutral (2021/22: Neutral) **Strategic priority link** Empower colleagues for great performance	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. 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. 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.

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
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. *Risk trend: Neutral (New) **Strategic priority link** Enable the energy transition for all	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. 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. 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.

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
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: • ensure our business model and strategy are aligned to the Paris Agreement on climate change; • deliver GHG emissions reductions for our business and enable economy-wide net zero transition; and • demonstrate climate change leadership within the energy sector. *Risk trend: Neutral (2021/22: Neutral) **Strategic priority link** **Enable the energy transition for all**	Putting in place measures to: • continue to evolve our environmental sustainability metrics to reflect our strategy, measure our impact and track our progress; • evolve our external environmental, social and governance (ESG) disclosures to reflect external best practice; • 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; • ensure our internal reporting and governance develop so management has oversight of key risks and opportunities related to climate change and GHG emissions performance; • 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; • 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); • 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 • continue to comply with the TCFD recommended disclosures, including physical and transitional scenario analysis (see pages 38 – 51).

Risk: Satisfactory regulatory outcomes	Actions taken by management
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. *Risk trend: Neutral (2021/22: Neutral) **Strategic priority link** **Enable the energy transition for all**	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. Ongoing work to support our regulatory relationships includes the following: • 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; • 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; • establishment of regulatory strategy focusing on the importance of anticipatory investment in networks, connections reform and performance-based regulation; • establishment of executive oversight groups and regulatory steering committees for all rate cases/price controls and other major regulatory proceedings; and • increased focus on understanding the needs and expectations of customers and stakeholders through regulatory relationship surveys, investor surveys and review of media sentiment.

Strategic risks continued

Risk: Political and societal expectations and perceptions	Actions taken by management
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. *Risk trend: Neutral (2021/22: Neutral) Strategic priority link Enable the energy transition for all	Processes and resources are in place to review, monitor and influence perceptions of our business and our reputation by: • tailoring our customer, stakeholder and media communications; • enhancing and consolidating our digital roadmap and social channels; • delivering on our commitment to be a responsible business (see pages 33 – 35); and • promoting partnerships and proactive policy change discussions across the jurisdictions where we operate. 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.

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
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. *Risk trend: Increasing Driven by increased threat from global geopolitical tensions (2021/22: increasing) Strategic priority link Grow our organisational capability	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: • close partnerships with UK and US government agencies including the Department for Business & 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; • 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 • 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.

Operational risks continued

Risk: Significant safety or environmental event (asset failure)	Actions taken by management
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. ***Risk trend: Neutral** (2021/22: Neutral) **Strategic priority link** **Grow our organisational capability**	We continue to focus on risk mitigation actions designed to reduce the risk and help meet our business objectives. Key actions include: Ongoing preventative measures: • inspection and maintenance programmes including defect management; • UK and US winter preparedness plans; • US storm-hardening programme; • outage planning; • US gas services and metering inspections to domestic properties; • US gas leak-prone pipe replacement programme; and • Group-wide learnings from the IFA1 fire (September 2021). Event response: • emergency response plans; • incident management system; • disaster recovery; and • business continuity management. Embedded Group-wide process safety management system: • 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. Implemented asset management and data management standards, including: • supporting guidelines to provide clarity around what is expected; • a strong focus on what we need in place to keep us safe, secure and legally compliant; and • established capability frameworks to make sure our workforce has the appropriate skills and expertise to meet the performance requirements of these standards.

Risk: Significant disruption of energy	Actions taken by management
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. ***Risk trend: Neutral** (2021/22: Neutral) **Strategic priority link** **Deliver for customers efficiently**	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. Key management actions include: Ongoing preventative measures: • accelerating proactive maintenance and asset checks ahead of winter to maximise network availability; • working closely with energy suppliers, Ofgem and the Department for Business & Trade to explore wider industry mitigations designed to maximise supply, manage demand, and enhance storage flood contingency plans for substations; • system operator supply and demand forecasting; • enhanced winter preparedness and scenario planning; • testing our response plans, including establishing a proactive communication strategy covering a range of scenarios; • US gas mains replacement programmes; • US storm-hardening programme; and • outage planning. Event response: • emergency response plans; • incident management system; • disaster recovery; and • business continuity management. 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.

Operational risks continued

Risk: Energy balancing	Actions taken by management
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. ***Risk trend: Neutral** (separated from the significant disruption of energy GPR) **Strategic priority link** **Deliver for customers efficiently**	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. 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. Enhanced measures include: • 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; • the development of a world-first demand flexibility service; • a media strategy ahead of winter; and • an enhanced service through contracting with coal fire power stations.

Risk: Major projects delivery	Actions taken by management
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. ***Risk trend: Neutral** (new) **Strategic priority link** **Enable the energy transition for all**	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. 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. 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.

* 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

Reasonable worst-case scenario (RWCS)	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.
Five-year horizon	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.
Cliff-edge risks	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.
Financial and reputational risk capacity	We primarily assess our viability from the RWCS in two ways: financial risk capacity and reputational risk capacity.
Business plan stress testing	We assess the financial impact and financial risk capacity of our risk testing using the latest business plan.
Individual risk testing	For each GPR we assess the potential financial and reputational impact.
Risk cluster testing	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.
Mitigation actions	Where a risk scenario would potentially exceed our financial risk capacity, we consider reasonable management mitigation.

Table A

RWCS assessment

Operational impacts

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

Performance impacts

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

Table B

Principal risk	Viability scenario	Matters considered and overseen by the Board
Cyber security 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.	**Scenario 1** – A significant cyber attack. £755 million ($830 million) net (post insurance) cost impact. Included in the risk cluster testing.	**The Board and Audit & Risk Committee reviewed and discussed cyber security including:** • a risk paper highlighting cyber threat due to geopolitical factors; and • a cyber risk deep dive session.
Significant disruption of energy 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.	**Scenario 2** – Significant energy disruption event due to asset failure in the US. No significant financial impact.	**The Board and Audit & Risk Committee:** • considered the GPR as part of the bi-annual Group risk review.
Energy balancing 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.	**Scenario 3** – 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.	**The Board reviewed and discussed:** • a detailed update on our winter preparedness and the risk of a disruption of energy event; • US energy supply adequacy in advance of the winter period; and • a bi-annual Group risk review.
Significant safety or environmental event 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.	**Scenario 4** – 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.	**The Board reviewed and evaluated the current safety performance of the Group including:** • during the bi-annual risk review; • discussing the US businesses; • discussing the UK businesses; and • discussing leading safety indicators. **The Safety & Sustainability Committee:** • was provided with an update on safety performance for each business unit; • considered an annual update on the significant safety or environmental event GPR; and • reviewed and discussed the IFA fire investigation, with support from the Finance Committee, which discussed progress of the associated insurance claim.
Major projects delivery There is a risk that we are unable to deliver on our major capital project programme within the required timeframes.	**Scenario 5** – Inability to deliver our major capital projects. Significant regulatory fines and impact on returns.	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.

Principal risk	Viability scenario	Matters considered and overseen by the Board
Satisfactory regulatory outcomes 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.	**Scenario 6** – Poor outcome of future US rate case filings, and low performance under RIIO-T2 and RIIO-ED2. $550 million cost impact from lower average allowed RoE in US rate cases. £780 million cost impact from nil outperformance under RIIO-T2 and RIIO-ED2.	**The Board received updates and discussed:** • the UK ED regulatory strategy; and • the RIIO-ED2 Draft Determination in November 2022 and the Final Determination in January 2023. **In addition, enrichment sessions were held on:** • US Utility Regulation (FERC, Massachusetts and New York; regulatory frameworks); • the UK regulatory landscape and regulatory framework; and • the future outlook of ESO.
Climate change 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.	**Scenario 7** – Not meeting our net zero commitments. No immediate financial impact but various (significant) reputational impacts were considered.	**The Board, supported by the Safety & Sustainability Committee discussed sustainability metrics and strategy to reflect and track our impact and progress. Discussions included those in relation to:** • 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; • considered key ESG topics, such as the energy transition and climate change, and associated expectations of investors. On the recommendation of the Safety & Sustainability Committee, the Board approved the CTP which was subject to a shareholder non-binding advisory vote at the 2022 AGM; • TCFD disclosures; • our GHG emissions performance; and • our participation in COP27 in November.
Political and societal expectations and perceptions 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.	**Scenario 8** – Increased political–societal pressures associated with a prolonged cost of living crisis. Financial impact with prevention of inflation driven bill increases.	**The Board received updates on:** • each of our business units; • our participation in COP27, both in the lead up and the key messages from the event; • the UK and US political landscape; • the UK and US energy markets, amidst rising gas prices; • the deep dive on energy policy environment in UK; and • the short-, medium- and long-term impacts of war in Ukraine.
Capability and leadership 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.	n/a	**The Board and the People & Governance Committee are focused on capability and leadership particularly at the senior level. Accordingly, it:** • 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; • reviewed Board succession planning; • reviewed leadership talent and succession planning for the Group Executive Committee; and • approved an updated Board DEI Policy and refreshed our Board skills matrix.
Financing our business 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.	**Scenario 9** – High and volatile interest rates. Highly volatile interest rates in both the US and UK, resulting in an increase in our cost of debt for the next five years. The impact on our future financing arrangements from other significant risk events is considered as part of our risk cluster scenario.	**The Board:** • 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. **The Finance Committee:** • regularly reviews and oversees key financial risks, including liquidity, refinancing and counterparty risks on behalf of the Board.

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 RIIO-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_6 emissions from our operations by 50% by 2030 and removing all SF_6 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_6 with an alternative gas, delivering a 13% reduction in our total SF_6 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_6-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.

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.

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.

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.

6 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^3 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^3 to 1.2 million m^3 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.

7 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.

You can find the RBC and latest RBR here, which provide more details on all of the below.
nationalgrid.com/responsibility

The environment

7,245
Scope 1 and 2 emissions (ktCO_2e)

27,879
Scope 3 emissions (ktCO_2e)

278
SF_6 emissions (ktCO_2e)

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_6 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 Board[2]		Senior management[3]		Whole Company[4]	
	Male	Female	Male	Female	Male	Female
Number	7	5	88	59	22,512	6,938[5]
%	58.3%	41.7%	59.9%	40.1%	76.4%	23.6%
Total	12		147		29,450	

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

KPIs
pages 14 – 17

Our stakeholders
pages 36 – 37

Audit & Risk Committee report
pages 83 – 87

People & Governance Committee report
pages 80 – 82

Safety & Sustainability Committee report
page 88

TCFD
pages 38 – 51

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
Our policies and due diligence	10 – 20	21 – 44	45, 47 – 48	42, 47 – 48
Outcomes	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.

	Customers	Investors
Overview	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.	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.
Interests	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.	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.
Engagement	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.	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)
Outcomes	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.	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 – RIIO-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 2ºC above pre-industrial levels, and to pursue efforts to limit the increase to 1.5ºC.

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

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

3. Risk management

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

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

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 Wyrsch, 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**

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
Safety & Sustainability Committee	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.	• Approved the Group's first CTP at its May 2022 meeting (approved by shareholders in July 2022). • Reviewed the RBR and TCFD draft content at its May 2023 meeting. • 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. • Reviewed and challenged the Group's performance against its RBC targets, including net zero commitments. • Undertook a deep dive into the Group's climate change GPR.
Audit & Risk Committee	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.	• Reviewed the 2022/23 draft TCFD, EU Taxonomy, GRI and SASB content, as well as the RBR assurance outcomes, at its May 2023 meeting. • Briefed on readiness initiatives and planning for imminent mandatory corporate sustainability reporting regimes. • Oversaw and monitored the progress of data governance and controls improvement initiatives on non-financial information, with a focus on climate change KPIs.
Remuneration Committee	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. 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.	• 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. More information on the remuneration incentives can be found on **page 91**
People & Governance Committee	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.	• Refreshed the Board skills matrix by including broader sustainability-specific skills, and assessed Board members accordingly. • To see the spread of Board skills including sustainability and climate change see page 80.
Finance Committee	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.	• Reviewed a paper on Green and Sustainable Financing strategy, and continues to drive good practice in this area. • 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.

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:

Safety, Health & Sustainability Committee

Reviews and manages Group-wide safety, environment and health tracking/ monitoring and related decisions. The Chief Sustainability Officer attends this Committee, providing a link between management and Board discussions around climate-related issues. The Committee reviewed potential impacts on our climate strategy and progress towards our net zero commitments throughout the year.

Reputation & Stakeholder Management Executive Committee

Provides oversight of Responsible Business policy development and engagement, including in relation to the RBR and the energy transition.

Ethics, Risk and Compliance Committee (ERCC)

Oversees the implementation of the Group's risk management framework and assessment of principal risks, including climate change.

Policy and Regulation Committee

Agrees and provides strategic oversight of Group public policy priorities and positions, including those relating to climate change.

Investment Committee

Has delegated authority to approve investment decisions, including those related to our NGV business which encompasses our National Grid Renewables business in the US.

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.

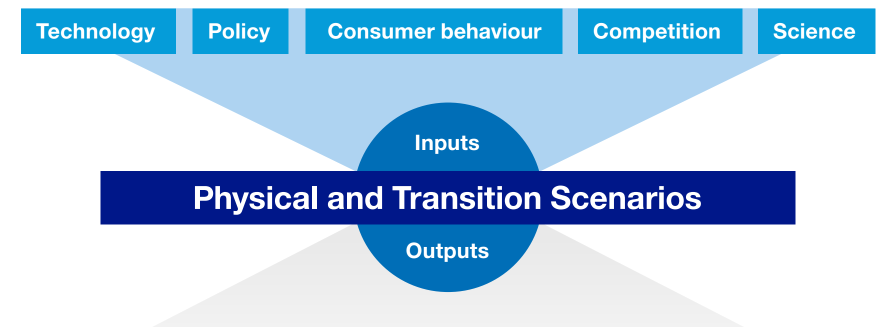
Our most recent analysis executed in 2021/22 modelled three scenarios: slow progress, orderly transition and acceleration. They are stretching and plausible futures for our society built using different assumptions across variables, as demonstrated by the graphic below. We tested the resilience of our 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.

Our scenarios



Slow progress
- Decarbonisation progress is made but too slow to meet net zero targets
- Increase in distributed generation and local solutions where local authorities compensate for lack of overall national progress
- System becomes increasingly unequal

Orderly transition
- Reaches most net zero targets through an orderly approach
- Governments pursue suite of solutions for large-scale and consumer options
- Coordinated pathway between key market players e.g. orderly reduction in natural gas
- Increased investment in renewable electric generation and networks
- Gas network evolution to allow H2 clusters and/or clean gas blending

Acceleration
- Reaches 2030 net zero targets to be on track for 2050
- Electrification of heat and transport at a fast pace
- Accompanied by large-scale investments (network, storage)
- Increased grid scale and interconnection with smart homes and end-use electrification
- Faster gas demand reduction

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.

Physical modelling

Climate hazard	Definition and threshold	Potential change by 2070s (4°C scenario)	Confidence level
Coastal flooding	Frequency of occurrence of coastal flood and future impacts due to sea level rise	Significant increase in frequency	Medium
River flooding	Frequency of occurrence of river flooding due to over 25mm (1 inch) daily rainfall	Significant increase in frequency	Medium
Storms (compound events)	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
High wind	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
Lightning	Number of lightning events	Increase in frequency	Low
High temperatures	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
Low temperatures	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
Freeze-thaw cycles	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
Heatwaves	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

Phase 1
Scope
Validate scope including climate science, hazards and assets

Phase 2
Assess vulnerability
Climate vulnerability risk = Exposure x Potential x Hazard

Phase 3
Assess resilience
Assess climate resilience assets at risk, accounting for those with adaptation efforts in place

Phase 4
Adaptation
Develop adaptation plan to address assets with the highest resilience risk

Outputs

Business-specific Vulnerability Assessment Reports
To support future regulatory submissions

Equipment specification updates
To identify where changes are needed

External engineering standards
To influence, change and establish industry resilience standards

Asset policy changes
To deliver climate resilient assets at least cost

Discrete investment projects
To address immediate vulnerability risks not captured in existing investment plans

CCRT development
To continuously improve our CCRT through application

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.

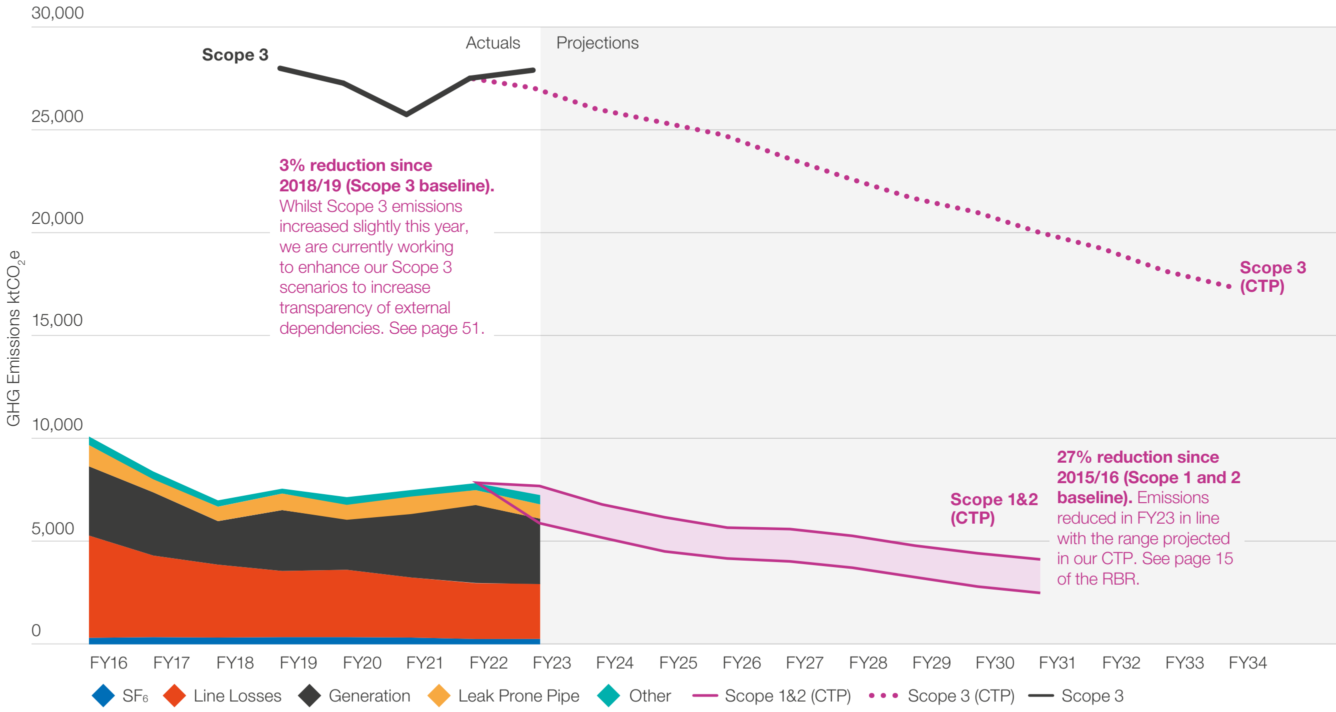
For more information, please refer to our Climate Transition Plan

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.



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.

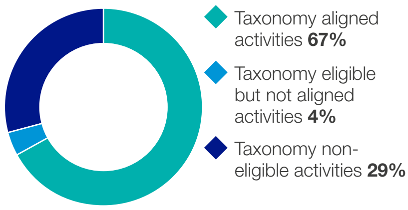
In our commitment to be a trusted, value-driven leader in the energy transition, we have voluntarily elected to publish disclosures based on our eligibility and alignment to the EU Taxonomy Delegated Acts on Climate Change Mitigation and Adaptation. Both objectives have been developed to align with the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

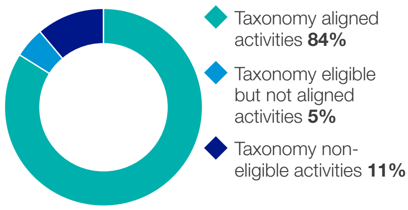
Group aligned turnover

67%
£14.4bn
(2021/22: 67% £12.4bn)



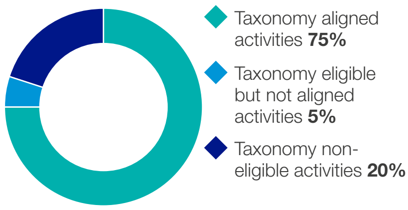
Group aligned opex

84%
£6.5bn
(2021/22: 84% £5.3bn)



Group aligned capex

75%
£5.6bn
(2021/22: 73% £4.5bn)



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.

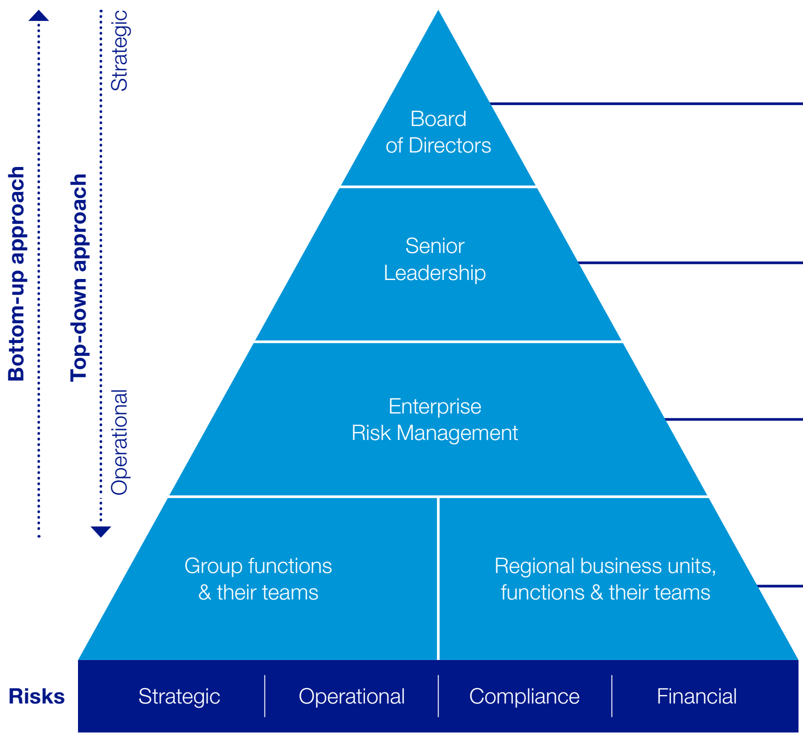
Further details of the Group's exposure to climate change are described on pages 21 and 23.

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



Top-down approach refers to the activities under the responsibility of the Board and the Senior Leadership ('top') to drive strategic alignment and effective risk management across National Grid ('down'). The main purpose of this approach is to capture our strategic "bigger picture", including the main risks to its achievement, and then drill down from there. It includes:

- defining and cascading the Group business strategy across National Grid;
- defining high-priority risks (e.g. through the UK/US Risk Committee or UK/US Executive);
- driving decision making over organisation-wide risks and opportunities; and
- overseeing risk management activities across the organisation.

Bottom-up approach refers to the activities performed by the business units and functions, supported by risk management units ('bottom') to manage risks at the operational level, and report insights and results to the Senior Leadership ('up'). It includes:

- performance of risk management activities at the operational levels (e.g. deep dive activities across risk teams, risk governance at the business unit level, review of business risk registers);
- design and execution of mitigation plans (e.g. controls) over risks; and
- escalation of relevant risks noted at the detailed level to Senior Leadership and the Board.

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
Risk level 0	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.
Risk level 1	• Strategy delivery • External market environment • Political landscape • Brand, trust and reputation • **Environmental, social and governance** • Consumer • Agility • Global megatrends • Culture and behaviours • Talent management	• Customer • People management • Health and safety • Asset development, availability and performance • **Production and service disruption** • Business continuity and resilience • Third party and supply chain • Cyber security • Data protection • Technology • Change management	• Market external obligations • Regulatory strategy • Legislative and regulatory complexity and scale • Health, safety and environmental compliance • Competition and anti-trust • Financial crime • Internal compliance	• Planning and forecasting • Business performance • Financial market • Balance sheet • Financial reporting • Supplier value and cost management

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	
1	<50k	<500k	<5m	<50m	**Internal** Minor impact on stakeholders within National Grid Group	**Remote** Frequency: <Once in 20 years	Probability: <10% chance
2	50 – 100k	500k – 1m	5 – 10m	50 – 100m	**Intra-Group (Internal)** Major impact on stakeholders within National Grid Group	**Less likely** Frequency: <Once in 15 years	Probability: >10% chance and <40% chance
3	100 – 300k	1 – 3m	10 – 30m	100 – 300m	**Local 3rd Party (External)** Impact on local stakeholders	**Equally unlikely as likely** Frequency: <Once in 10 years	Probability: >40% chance and <60% chance
4	300 – 500k	3 – 5m	30 – 50m	300 – 500m	**National (External)** Impact on national stakeholders	**More likely** Frequency: <Once in 5 years	Probability: >60% chance and <90% chance
5	>500k	>5m	>50m	>500m	**International (External)** Impact on stakeholders that could reasonably be visible on the wider international stage	**Almost certain** 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:

Short	Medium	Long
up to 2025	**from 2025 to 2030**	**from 2030 to 2050**

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 impacts with reference to the following categorisation:

Very low	Low	Moderate	High	Very high
Remote	**Less likely**	**Equally unlikely as likely**	**More than likely**	**Almost certain**

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	Potential impact	Our response
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 (Long) **Likelihood:** Very low · Low · Moderate · High · Very high (High) **Measurement indicators:** Gas UEL sensitivities, GHG emissions, CTP	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.	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.

Risk/opportunity	Potential impact	Our response
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 — Medium, Long **Likelihood:** Very low / Low / Moderate / High / Very high — Moderate **Measurement indicators:** Network reliability; capital expenditure on ESO stability services and UK and US power networks	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 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	Potential impact	Our response
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 — Short, Medium, Long **Likelihood:** Very low / Low / Moderate / High / Very high — Moderate **Measurement indicators:** % of National Grid costs on customer bills, customer trust survey, feedback through the fair transition plan.	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.	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.

Business potentially affected: Group-wide

Timeframe (term): Short / Medium / Long — Medium, Long

Likelihood: Very low / Low / Moderate / High / Very high — Moderate

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.

Business potentially affected: Group-wide

Timeframe (term): Short / Medium / Long — Short, Medium, Long

Likelihood: Very low / Low / Moderate / High / Very high — Moderate

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.

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.

Business potentially affected: Group-wide

Timeframe (term):
Short Medium Long

Likelihood:
Very low Low Moderate High Very high

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.

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_6 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_6 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[2]
Total scope 1 and 2 emissions (tCO_2e)	**7,245,612**	7,831,047
Scope 1 emissions (tCO_2e)	**4,369,413**	5,033,981
Fossil fuel generation (tCO_2e)	**3,093,766**	3,798,944
Natural gas emissions from fugitive and venting (tCO_2e)	**714,405**	720,058
SF_6 fugitive emissions (tCO_2e)	**277,856**	279,268
Scope 2 emissions (tCO_2e)	**2,876,199**	2,797,066
Electricity line losses emissions (tCO_2e)	**2,748,279**	2,678,531
Scope 3 emissions (tCO_2e)	**27,879,254**	27,492,438
Sold gas emissions (tCO_2e)	**17,972,516**	17,617,298
Sold electricity emissions (tCO_2e)	**3,510,283**	3,448,569
Scope 1, 2 and 3 emissions intensity[1] (tCO_2e) / £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_6 emissions from 2019 baseline %	**21%** (Target 50% by 2030)	
Electric light duty fleet %	**5%**	4%
Consumer Trust Survey (US)[1]	**56.0%**	62.4%
NG UK's transmission costs' contribution to consumer bills[1]	**£22.22**	£29.04
NG UK's distribution costs' contribution to consumer bills[1]	**£131.49**	£98.85
US Electric: Average Customer Bill (Low Income Customers Excluded)[1]	**$1,774.03**	$1,613.35
US Gas: Average Customer Bill (Low Income Customers Excluded)[1]	**$1,482.81**	$1,314.24
US Electric: Average Low Income (only) Customer Bill[1]	**$1,256.62**	$1,107.07
US Gas: Average Low Income (only) Customer Bill[1]	**£1,023.71**	$904.72
Network reliability[1]	**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
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.

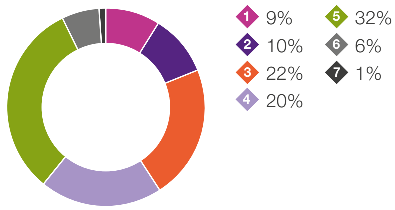
For transparency, we have reported energy consumption from power generation as a separate line item. Transport covers company car business travel, and our own operational ground and aviation fleet. In addition to energy consumed, we calculate that system losses accounted for a further 15,746,136,404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

Financial review

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.

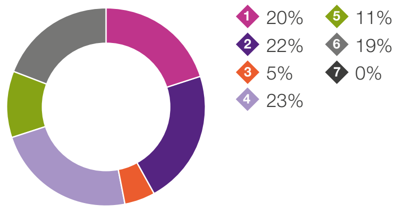
Revenue (%)



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.

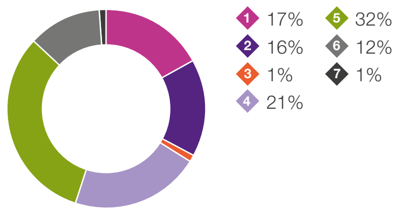
Statutory operating profit (%)



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 (%)



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

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.

Financial review

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

Statutory EPS[1]
74.2p
2021/22 60.6p
2020/21 37.0p

Underlying EPS[1]
69.7p
2021/22 65.3p
2020/21 42.4p

Group RoE
11.0%
2021/22 11.4%
2020/21 10.6%

Asset growth
11.4%
2021/22 8.7%
2020/21 5.6%

1. From continuing operations

Financial summary for continuing operations

£m	2022/23	2021/22	Change
Accounting profit:			
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[1]	**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	–%
Economic profit:			
Value Added[1]	**4,807**	3,833	25%
Group RoE[1]	**11.0%**	11.4%	-40bps
Capital investment and asset growth:			
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[1]	**7,740**	6,739	15%
Asset growth[1]	**11.4%**	8.7%	270bps
Balance sheet strength:			
RCF/adjusted net debt (Moody's)[1]	**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)[1]	**40,973**	48,043	(15)%
Group regulatory gearing[1]	**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.

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.

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

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

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. NYSERDA). 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[1]
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**	–
Balance at end of year	**64**	(20)

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)%
Continuing operations	**4,879**	4,371	12%
Discontinued	**715**	637	12%
Total	**5,594**	5,008	12%

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%
Continuing operations	**4,582**	3,992	15%

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%
Statutory operating profit	**993**	1,055	(6)%
Exceptional items	**2**	12	n/m
Adjusted operating profit	**995**	1,067	(7)%
Timing	**112**	85	32%
Underlying operating profit	**1,107**	1,152	(4)%
Analysed as follows:			
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)%
Adjusted operating profit	**995**	1,067	(7)%
Timing	**112**	85	32%
Underlying operating profit	**1,107**	1,152	(4)%

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%
Statutory operating profit	**1,069**	909	18%
Exceptional items	**22**	—	n/m
Adjusted operating profit	**1,091**	909	20%
Timing	**139**	(22)	n/m
Underlying operating profit	**1,230**	887	39%
Analysed as follows:			
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%
Adjusted operating profit	**1,091**	909	20%
Timing	**139**	(22)	n/m
Underlying operating profit	**1,230**	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%
Statutory operating profit	**237**	5	n/m
Exceptional items	**1**	2	(50)%
Adjusted operating profit	**238**	7	n/m
Timing	**(207)**	47	n/m
Underlying operating profit	**31**	54	(43)%
Analysed as follows:			
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%
Adjusted operating profit	**238**	7	n/m
Timing	**(207)**	47	n/m
Underlying operating profit	**31**	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)%
Statutory operating profit	**1,132**	764	48%
Exceptional items	**(456)**	80	n/m
Remeasurements	**32**	(101)	n/m
Adjusted operating profit	**708**	743	(5)%
Timing	**39**	32	22%
Major storm costs	**72**	111	(35)%
Underlying operating profit	**819**	886	(8)%
Analysed as follows:			
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%
Adjusted operating profit	**708**	743	(5)%
Timing	**39**	32	22 %
Major storm costs	**72**	111	(35)%
Underlying operating profit	**819**	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.

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%
Statutory operating profit	**541**	1,095	(51)%
Exceptional items	**(118)**	(24)	n/m
Remeasurements	**318**	(291)	n/m
Adjusted operating profit	**741**	780	(5)%
Timing	**(53)**	(126)	(58)%
Major storm costs	**186**	52	n/m
Underlying operating profit	**874**	706	24%
Analysed as follows:			
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%
Adjusted operating profit	**741**	780	(5)%
Timing	**(53)**	(126)	(58)%
Major storm costs	**186**	52	n/m
Underlying operating profit	**874**	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
Revenue	**1,341**	1,024	31%
Operating costs	**(235)**	(585)	(60)%
Depreciation and amortisation	**(149)**	(156)	(5)%
Statutory operating profit	**957**	283	238%
Exceptional items	**(467)**	3	n/m
Remeasurements	**–**	–	n/a
Adjusted/underlying operating profit	**490**	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
Statutory operating (loss)/profit	**(50)**	260	(119)%
Exceptional items	**81**	(239)	n/m
Adjusted/underlying operating profit	**31**	21	48%
Analysed as follows:			
Property	**216**	40	n/m
Corporate and Other activities	**(185)**	(19)	n/m
Adjusted/underlying operating profit	**31**	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%
Statutory operating profit	**715**	637	12%
Exceptional items	**(1)**	17	n/m
Adjusted operating profit	**714**	654	9%
Timing	**(12)**	80	n/m
Adjusted operating profit (excluding timing)	**702**	734	(4)%
Analysed as follows:			
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)%
Adjusted operating profit	**714**	654	9%
Timing	**(12)**	80	n/m
Adjusted operating profit (excluding timing)	**702**	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 volumes offset by an 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.

	At actual exchange rates			At constant currency		
£m	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[1]	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)%
Continuing[1]	7,740	6,739	15%	7,740	7,188	8%
Discontinued	301	261	15%	301	261	15%
Total Group	8,041	7,000	15%	8,041	7,449	8%

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%
Business net cash (outflow)/inflow from continuing operations	**(48)**	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)%
Net cash outflow (continuing)	**(3,092)**	(1,617)	(91)%
Disposal of UK Gas Transmission and Metering and NECO[1]	6,995	–	n/m
Acquisition of National Grid Electricity Distribution[2]	–	(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
(Decrease)/increase in cash and cash equivalents	**(35)**	31	n/m
Reconciliation to movement in net debt			
(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)%
Net debt at end of year	**(40,973)**	(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)%
Net assets	**29,562**	23,856	24%

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					
Tax jurisdiction	Unrelated party[1] £m	Related party[2] £m	**Total £m**	Profit/ (loss) before income tax[3] £m	Income tax accrued – current year[4] £m	Tangible assets/ (liabilities) other than cash and cash equivalents[5] £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**	–	–	–
Total	23,263	206	**23,469**	3,963	400	64,433

2021/22	Revenue					
Tax jurisdiction	Unrelated party[1] £m	Related party[2] £m	**Total £m**	Profit/ (loss) before income tax[3] £m	Income tax accrued – current year[4] £m	Tangible assets/ (liabilities) other than cash and cash equivalents[5] £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**	–	–	–
Total	19,811	222	**20,033**	3,848	296	57,532

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.

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
Total Group tax charge[1]	**969**	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
Group current tax charge	**400**	296
Group tax instalment payments (repayable)/payable in the following year	**–**	(1)
Utilisation of tax losses[2]	**(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[3]	**(70)**	15
Group tax payments relating to tax disclosed elsewhere in the financial statements	**1**	3
Group tax paid[4]	**92**	331
Profit before income tax[5]	**3,963**	3,848

	%	%
Effective cash tax rate[6]	**2.3**	8.6
Effective tax rate[7]	**24.5**	38.8

1. 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).
2. Relates to US utilisation of tax losses against, primarily, gains on the sale of NECO and Millennium.
3. Primarily relates to refunds in respect of US tax settlements for historic years.
4. 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).
5. 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).
6. Effective cash tax rate for continuing operations after exceptionals is 2.5% (2022: 8.8%) and discontinued operations is 0.8% (2022: 8.1%).
7. 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.

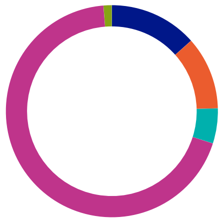
The Group continued to make payments into the UK defined benefit pension schemes, National Grid UK Pension Scheme, National Grid Electricity Group section of the Electricity Supply Pension Scheme and the Western Power Pension Scheme during the course of the year. These payments have further reduced the 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.

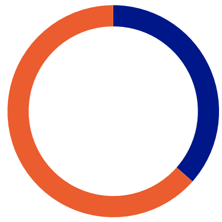
Group's total tax contribution 2022/23 (taxes borne/collected)

Taxes borne



Key:	£m
People	254
Product	211
Profit	101
Property	1,302
Miscellaneous	24
Total	**1,892**

Taxes collected



Key:	£m
People	792
Product	1,376
Total	**2,168**

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					
Tax jurisdiction	Income tax paid/ (repaid) on cash basis[1] £m	Property taxes £m	Other taxes borne £m	Taxes collected £m	**Total tax contribution £m**	Number of employees[2] as at 31 March 2023
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	–	–	–	–	**–**	–
Total	92	1,302	498	2,168	**4,060**	31,275

1. See the tax charge to tax paid reconciliation above for further information.
2. 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					
Tax jurisdiction	Income tax paid/ (repaid) on cash basis[1] £m	Property taxes £m	Other taxes borne £m	Taxes collected £m	**Total tax contribution £m**	Number of employees[2] as at 31 March 2022
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	–	–	–	–	**–**	–
Total	331	1,191	442	1,755	**3,719**	30,756

1. See the tax charge to tax paid reconciliation above for further information.
2. 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.

Corporate Governance report

UK Corporate Governance Code (the 'Code') – 2022/23 Compliance Statement

The Company is subject to the Principles and Provisions of the Code, published by the Financial Reporting Council in July 2018 (available at frc.org.uk). For the year ended 31 March 2023, the Board considers it has complied in full with the Provisions of the Code. This Corporate Governance Report as a whole explains how the Company has applied the Principles and complied with the Provisions of the Code and the below acts as a guide to where the most relevant explanations are given:

Principles of the Code

1. Board leadership and company purpose	
A. Leadership, long-term sustainable success, generating value for shareholders and contributing to wider society	**6 – 7, 68 – 69**
B. Purpose, values, strategy and culture	**2, 12 – 13, 34**
C. Resources and prudent and effective controls	**12 – 24**
D. Effective engagement with stakeholders	**36 – 37, 74 – 78**
E. Workforce policies and practices	**34 – 35, 37, 77**
2. Division of responsibilities	
F. Chair's leadership	**67 – 68**
G. Board composition and clear division of responsibilities	**68 – 71**
H. Role and time commitment of Non-executive Directors	**70 – 71, 79**
I. Policies, processes, information, time and resources, and support of the Company Secretary	**68, 78 – 79, 235**
3. Composition, succession and evaluation	
J. Board appointment process and effective succession planning	**80 – 82**
K. Board and Committee skills, experience and knowledge	**70 – 71, 80**
L. Annual Board and individual Director evaluation	**78**
4. Audit, risk and internal controls	
M. Independence and effectiveness of internal and external audit functions	**86 – 87**
N. Fair, balanced and understandable assessment of Company's position and prospects	**83**
O. Procedures to manage risk, oversee internal control framework and determine nature and extent of principal risks	**18 – 24, 86**
5. Remuneration	
P. Remuneration policies and practices	**90 – 106**
Q. Procedure for developing policy on executive, Director and senior management remuneration	**90 – 106**
R. Independent judgement and discretion in remuneration outcomes	**90 – 91, 93, 96**

Details on information required for our US Securities and Exchange Commission filing and the Form 20-F can be found on page 230.

Chair's statement

Key highlights in 2022/23

100%
Board meeting attendance for the year ended 31 March 2023

42%
female representation on our Board as at date of report

17%
ethnicity representation on our Board as at date of report

Dear shareholders,

I am pleased to present to you the 2022/23 Corporate Governance Report.

The year in review

One has only to read the media in any country and realise that energy is at the forefront of challenges faced around the globe. The Board recognises that we must assure reliability and resilience on behalf of millions of people who depend on National Grid every day. Yet at the same time, the Board must be looking to the future and helping shape a strategy compatible with the momentum to decarbonise and electrify large portions of national economies. We are also ultimately responsible for monitoring and assessing the Group's culture and its alignment with the Group's purpose, values and strategy, with emphasis on delivery and accountability, and where diversity, equity and inclusion are championed.

As has been our practice, the Board continued to rely on a set of goals to guide our activities through the year, addressing major strategic issues such as: the pace and direction of the energy transition, regulatory and government policy, technology and digitisation, and market structure. We set aside time outside of normal Board meetings for enrichment sessions to deepen knowledge of technology and innovation, among other topics. During the year, we routinely brought external viewpoints into the boardroom, including regulators, investors, policymakers and energy experts, to provide important external context to our deliberations. The Board, through the People & Governance Committee, also worked on strengthening our oversight of management development and succession.

Board composition and changes

The Board has undergone a major refreshment over the past several years. We added one new Board member in the year; Iain Mackay, then Chief Financial Officer at GSK plc, joined the Board in July 2022. In January 2023, Iain became the Chair of the Audit & Risk Committee.

Having inducted seven new Board members over the last three years, we are keen to ensure a balance of longer and newer serving Directors to retain knowledge and experience. As such we have agreed with Thérèse Esperdy, who completed her nine years as a Director in March 2023, to remain on the Board until 31 December 2023 to provide an orderly succession, given her roles as Senior Independent Director and Chair of the Finance Committee (see page 82).

Keeping the Board refreshed is an ongoing process. The People & Governance Committee is responsible for ensuring that Board composition evolves in line with the skills and experience we need for the current and future strategy of the Company, as well as ensuring we continue to meet our diversity commitments in our Board Diversity, Equity and Inclusion Policy (Board DEI Policy). As we actively search for new Board members, these priorities will be reflected.

Purposeful engagement

It is a privilege to be able to meet a wide variety of colleagues in different roles with varying backgrounds and experiences. The Directors held a number of formal and informal engagement sessions throughout the year with colleagues. We feel that our alternative arrangement of 'Full Board Employee Voice' for Board workforce engagement remains appropriate for our organisation. I have travelled to operational sites and spoken with many of our colleagues. In addition, I continue to meet stakeholders including regulators, elected and appointed officials and customers.

All our Non-executive Directors are encouraged to visit our operational sites to get a better view of the challenges on the ground and gain an authentic sense of the organisation and our culture (see page 77 for the engagement during the year). Furthermore, through external speakers, we try and give the Board an opportunity to understand different stakeholder perspectives in order to strengthen our deliberations and discussions and, ultimately, the decisions we make.

Annual General Meeting (AGM)

Following the success of our hybrid AGM in 2022, shareholders will again be able to join the 2023 AGM online as well as in person. This uses technology to enable shareholders to participate fully in the business of the meeting without the necessity of appearing in person. Further details are outlined in the Notice of Meeting for the AGM available on the Company's website.

Looking forward

We have refreshed our Board goals to guide our activities throughout the year ahead. These include continuing our strategic discussions regarding the contours of the Group's future business, monitoring progress in our commitment to net zero, transforming our business in terms of technology, and business process improvement.

Paula Rosput Reynolds

Paula Rosput Reynolds
Chair

Corporate Governance overview

We have a high-functioning, diverse and balanced Board. Our governance framework ensures that the Board is effective in its decision making and maintaining oversight of the Group's activities, complementing our values of do the right thing, find a better way and make it happen.

Our governance framework

Governance structure

The schedule of matters reserved for the Board and the Terms of Reference for each Board Committee are available in our Board Governance document at: **www.nationalgrid.com/about-us/corporate-information/corporate-governance**

How the Board operates

Board of Directors

Our Board is collectively responsible for the effective oversight of the Group. It determines the Company's strategic direction and objectives, business plan, dividend policy, viability and governance structure to help achieve long-term success and deliver sustainable shareholder value. It also plays a major role in setting and leading the Company's culture and wider sustainability goals. It considers key stakeholders in its decision making and, in doing so, ensures that Directors comply with their duty under section 172 of the Companies Act 2006 (see page 74).

To operate efficiently and enable appropriate oversight and consideration over relevant matters, the Board delegates certain responsibilities to the Board Committees. Each Committee Chair reports to the Board on their respective Committee's activities after each meeting and papers and minutes are available to all Directors unless there is an actual or perceived conflict of interest.

Key matters considered by the Board include:

- establishing the vision, purpose, values and strategy for the organisation;
- the business strategy and long-term strategic objectives;
- overall corporate governance arrangements;
- risk appetite and determination and monitoring of Group Principal Risks;
- systems of internal control and risk management;
- ensuring legal compliance and ethical integrity;
- annual business plan and budget;
- significant changes in capital structure;
- ensuring the Company has adequate resources and that resources are managed responsibly;
- succession planning for the Board and the Group Executive Committee;
- half- and full-year results statements, Annual Report and Accounts and other statutory reporting;
- oversight of the Company's response to major crises and other significant challenges;
- oversight of material ESG issues;
- appointing new Directors and assessing Board and individual Director performance;
- ensuring dialogue with key stakeholders to keep in touch with stakeholder opinions, issues and concerns; and
- determination of the framework or policy for the remuneration of the Directors.

Board composition and roles

Our Board comprises a Non-executive Chair (independent on appointment), two Executive Directors (Chief Executive and Chief Financial Officer) and nine independent Non-executive Directors, as at the date of this report. There is a clear division of responsibilities between the Chair and Chief Executive. See the Board Governance document on our website for further details on the split of responsibilities. A list of our Directors' biographies can be found on pages 70 and 71.

P

People & Governance Committee

Reviews the structure, size and composition of the Board and its Committees and advises the Board on its succession planning and that of the Group Executive Committee. It ensures the Board is diverse, with the appropriate balance of skills, experience, diversity, independence and knowledge and oversees the effectiveness of the Board's workforce engagement strategy. It monitors the Board's corporate governance framework.

Key matters considered:
- Board and Committee composition and succession planning.
- Board and Group Executive Committee appointments.
- Board workforce engagement.

Committee report
pages 80 – 82

A

Audit & Risk Committee

Assists the Board in discharging its responsibilities for the integrity of the Company's financial statements, risk management, assessment of the effectiveness of internal controls and internal and external auditors.

Key matters considered:
- Financial reporting and statements.
- Internal controls, risk management and compliance.
- Corporate audit.
- External audit and assurance.
- Complaints and whistleblowing procedures.
- ESG and climate change-related disclosures.

Committee report
pages 83 – 87

S

Safety & Sustainability Committee

Assists the Board in fulfilling its oversight responsibilities in respect of reviewing and challenging the strategies, policies, initiatives, risk exposure, targets and performance of the Company in relation to safety and sustainability.

Key matters considered:
- Safety policies and progress against initiatives and performance targets.
- Health and wellbeing of the workforce.
- Sustainability strategy, ESG and climate-related targets, disclosures and action plans.

Committee report
page 88

F

Finance Committee

Monitors the financial risk of the Group and sets the finance policy.

Key matters considered:
- Financing policies and decisions.
- Credit exposure.
- Hedging.
- Foreign exchange transactions.
- Tax strategy and policy.
- Guarantees and indemnities.

Committee report
page 89

R

Remuneration Committee

Determines the remuneration framework for the Chair, Executive Directors and Group Executive Committee members and oversees the remuneration practices and policies for the wider workforce.

Key matters considered:
- Setting and implementation of the Directors' Remuneration Policy.
- Incentive design and setting of remuneration targets.

Committee report
pages 90 – 106

Group Executive Committee and other management committees

Our Group Executive Committee oversees the safety, operational and financial performance of the Company. It is responsible for making the day-to-day management and operational decisions it considers necessary to safeguard the interests 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 including Safety, Health & Sustainability; Ethics, Risk & Compliance; Reputation & Stakeholder Management; Policy & Regulation; Investment; Disclosure.

Full biographies for the Group Executive Committee are available at:
www.nationalgrid.com/about-us/our-leadership-team/the-executive-committee

Our Board

Paula Rospût Reynolds (66)
Chair

Appointed: Chair with effect from 31 May 2021 and to the Board on 1 January 2021

Tenure: 2 years

Skills and competencies: Paula's strong business acumen is shown by her impressive track record of leading complex international businesses. In her board and leadership roles, Paula has demonstrated her decisive and pioneering nature, which is crucial in moving National Grid's vision forward, as it progresses its journey to enable the clean energy transition and net zero by 2050. Her knowledge of the energy market and experience supporting organisations through transitional periods is an asset to the Board, and her leadership was recognised as she was named FTSE 100 Non-executive Director of the year by The Times in March 2023. Paula is Chair of the People & Governance Committee and is pivotal in ensuring the succession and composition of the Board align to the culture, strategy and leadership needs of the Group. These skills combined with her insight into strategic and regulatory issues support her in leading and governing an effective board.

External appointments:

- Senior Independent Director and Chair of the Remuneration Committee of BP p.l.c.
- Non-executive Director of General Electric and Chair of the Governance and Public Affairs Committee
- President and CEO of PreferWest LLC

John Pettigrew (54)
Chief Executive

Appointed: Chief Executive with effect from 1 April 2016 and to the Board from 1 April 2014

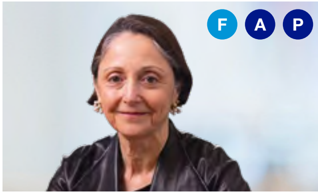
Tenure: 9 years

Skills and competencies: John joined National Grid as a graduate engineer in 1991, progressing through many senior management roles and demonstrating a strong track record of developing and implementing global strategies for profitable growth. John contributes widely into external industry discussions shaping energy policy and brings significant know-how and commerciality to his leadership of the executive team and management of the Company's businesses.

As Chief Executive, John leads on the implementation of the Group's strategy. Most recently, he progressed our strategic pivot with the successful acquisition of NGED, the sale of a majority stake in our UK Gas Transmission & Metering business and the sale of the Rhode Island electricity and gas business.

External appointments:

- Senior Independent Director of Rentokil Initial plc
- Member of the Electric Power Research Institute Board
- Member of the Edison Electric Institute Executive Committee



Thérèse Esperdy (62)
Senior Independent Director

Appointed: 18 March 2014

Tenure: 9 years

Skills and competencies: Thérèse has significant international investment banking experience, having held a variety of leadership roles spanning 27 years. Her career began at Lehman Brothers and in 1997 she joined Chase Securities and subsequently JPMorgan Chase & Co, where she held a number of senior positions. With a distinguished career in the investment banking sector, Thérèse brings significant banking, strategic and international financial management expertise and knowledge of financial markets to the Board and to her role as Chair of the Finance Committee.

Thérèse's specialist knowledge combined with her sharp and incisive thinking enables her to contribute to, and constructively challenge on, a wide range of Board debates.

External appointments:

- Chair of Imperial Brands PLC
- Non-executive Director of Moody's Corporation

Anne Robinson (52)
Non-executive Director; Independent

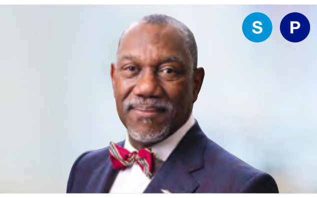
Appointed: 19 January 2022

Tenure: 1 year

Skills and competencies: Anne has over 20 years of legal experience in the financial services industry, where she has counselled senior executives on a wide range of legal, regulatory and business issues. She is also an advocate for sponsorship and mentorship of other women in the legal profession. Anne brings to the Board expansive and varied legal experience in the financial services and consulting fields as well as experience of working closely with boards and investors on a broad range of ESG issues. Anne earned a BS from Hampton University and a JD from Columbia University Law School.

External appointments:

- Managing Director, General Counsel and Corporate Secretary of The Vanguard Group, Inc.



Earl Shipp (65)
Non-executive Director; Independent

Appointed: 1 January 2019

Tenure: 4 years

Skills and competencies: With an extensive career in the chemicals industry and having held a senior leadership role in a safety-critical process environment, Earl brings significant safety, project management, environmental, sustainability and strategic expertise to the Board and its Committees, particularly in relation to operational safety management. This, combined with his innovative way of thinking, enables Earl to contribute on a wide range of issues to Board debates and to effectively chair the Safety & Sustainability Committee.

External appointments:

- Non-executive Director of Olin Corporation
- Non-executive Director of Great Lakes Dredge and Dock Co.

Andy Agg (53)
Chief Financial Officer (CFO)

Appointed: 1 January 2019

Tenure: 4 years

Skills and competencies: Andy trained and qualified as a chartered accountant with PricewaterhouseCoopers and is a member of the ICAEW. He has significant financial experience, having held a number of senior finance leadership roles across the Group, including Group Financial Controller, UK CFO and Group Tax and Treasury Director. Andy has in-depth knowledge of National Grid, in both the UK and the US, and has broad experience across operational and corporate finance roles. Most recently he was instrumental in the successful acquisition of NGED, the sale of a majority interest in the UK Gas Transmission & Metering business and the sale of the Rhode Island electricity and gas business, to enable our strategic pivot towards electricity transmission and distribution.

External appointments:

- Member of The 100 Group Main Committee and Chair of the Tax Committee

Liz Hewitt (66)
Non-executive Director; Independent

Appointed: 1 January 2020

Tenure: 3 years

Skills and competencies: Liz qualified as a chartered accountant with Arthur Andersen & Co. In her executive career she worked in private equity for 3i Group plc, Gartmore Investment Management Limited and Citicorp Venture Capital Ltd gaining insights into a wide variety of industries. She gained global insight through her work at Smith & Nephew plc. She was seconded for a year to HM government. Liz's executive career in private equity provided her with insights into a wide variety of industries. Her broad industrial and global experience and her financial knowledge enable her to bring a wide perspective to the Board.

External appointments:

- Director of Silverwood Property Limited
- Non-executive Director of Glencore plc

Lord Ian Livingston (58)
Non-executive Director; Independent

Appointed: 1 August 2021

Tenure: 1 year

Skills and competencies: Ian is a chartered accountant who qualified with Arthur Andersen & Co. He brings a wealth of experience to National Grid, having been Chief Financial Officer of both Dixons Group plc and Chief Executive and Chief Financial Officer of BT Group plc. In addition to a highly successful executive career, he has also had extensive non-executive board experience in both UK and US public companies, including as board chair, remuneration committee chair and audit committee chair. He has extensive experience of large, regulated companies operating in both the UK and internationally in a variety of sectors. He has a variety of non-commercial interests and involvement with a number of charities in education and social care.

External appointments:

- Non-executive Director of S&P Global
- Member of the House of Lords

Iain Mackay (61)

Non-executive Director; Independent

Appointed: 11 July 2022

Tenure: Less than 1 year

Skills and competencies: A member of the Institute of Chartered Accountants of Scotland, Iain also holds an MA in Business Studies and Accounting and received an Honorary Doctorate from Aberdeen University in Scotland. Iain has significant financial experience gained in a range of sectors and operating in regulated environments globally. He was most recently Chief Financial Officer at GSK plc, where he was a member of its board and leadership team and responsible for Global Finance and several of GSK's key global functions including Investor Relations and Technology. Prior to this, Iain was Group Finance Director at HSBC Holdings plc for eight years working across Asia, the US and Europe, and previously worked at General Electric, Dowell Schlumberger and Price Waterhouse. Iain's extensive background knowledge and financial expertise allows him to effectively Chair the Audit & Risk Committee.

External appointments:

- Member, Court of University of Aberdeen and Chair of its Remuneration Committee

Jonathan Silver (65)

Non-executive Director; Independent

Appointed: 16 May 2019

Tenure: 4 years

Skills and competencies: Jonathan has considerable knowledge of the US-regulated energy environment, experience and understanding of integrating public policy and technology into a utility as well as a strong background in finance. Previously, he was the head of the US government's $40 billion clean energy investment fund. Jonathan's strong background in finance and government policy along with his long career at the intersection of policy, technology, finance, and energy bring innovative and positive insight to the Board's policy discussions and to its interaction with management.

External appointments:

- Independent Director of EG Acquisition Corp.
- Director of Plug Power Inc.
- Director of Intellihot Inc.
- Chair of Global Climate Council Apollo Global Management, Inc.

Tony Wood (57)

Non-executive Director; Independent

Appointed: 1 September 2021

Tenure: 1 year

Skills and competencies: Tony has proven business leadership credentials as an experienced CEO, and brings to the Board significant engineering experience; he is also a Fellow of the Royal Aeronautical Society. He was most recently CEO of Meggitt plc and led the operational and cultural transformation of the company, transitioning from an industrial holding structure to a focused and customer-led business, leveraging technology investment.

During his time at Rolls-Royce plc as President of its Aerospace division, Tony developed a strong reputation as an operator, turning around and growing several challenging business units and internationalising the company's footprint.

External appointments:

- Director of ADS Group Limited
- Non-executive Director of Airbus SE

Key

- A Audit & Risk Committee
- F Finance Committee
- P People & Governance Committee
- R Remuneration Committee
- S Safety & Sustainability Committee
- E Group Executive Committee
- ● Committee Chair

Biographies, tenure and age as at 17 May 2023

Martha Wyrsch (64)

Non-executive Director; Independent

Appointed: 1 September 2021

Tenure: 1 year

Skills and competencies: Martha has held a number of senior positions in the energy industry and has significant experience of the US market, having been a fortune 100 General Counsel and Chief Executive of a major international gas transmission business, as well as leading the growth and development of Vestas' renewables business in the US.

Having held a number of director roles of publicly listed companies in both the UK and the US, Martha brings to the Board relevant experience across the renewable energy sector, as well as a strong understanding of the US regulatory environment, bringing enriching discussion and strategic thought to the Board.

External appointments:

- Independent Director of Quanta Services, Inc.
- Independent Director of First American Financial Corp.
- Advisor to Summit Carbon Solutions

Justine Campbell (52)

Group General Counsel & Company Secretary

Appointed: 1 January 2021

Tenure: 2 years

Skills and competencies: Justine graduated from Trinity College Dublin before qualifying as a corporate lawyer and spending a number of years at Freshfields in London and Brussels. She has held senior executive positions with responsibility for legal, regulatory, compliance and public affairs matters at several international companies, including Telefonica, Vodafone and Centrica, and has particular expertise in regulated sectors.

Justine is responsible for safety, legal, risk, compliance and corporate governance activities across the Group.

External appointment:

- Member of the GC100 Group Executive Committee

Board meeting attendance

The table below sets out Director attendance at Board meetings during the year ended 31 March 2023.

Director	Attendance
Paula Rosput Reynolds ●	6/6
John Pettigrew	6/6
Andy Agg	6/6
Thérèse Esperdy	6/6
Liz Hewitt	6/6
Ian Livingston	6/6
Iain Mackay	5/5[1]
Anne Robinson	6/6
Earl Shipp	6/6
Jonathan Silver	6/6
Tony Wood	6/6
Martha Wyrsch	6/6
Former Director	
Jonathan Dawson	1/1[2]
Amanda Mesler	1/1[2]

● Board Chair

1. Iain Mackay joined the Board on 11 July 2022.
2. Jonathan Dawson and Amanda Mesler retired from the Board at the 2022 AGM.

Board focus during the year

Our Board is collectively responsible for the effective oversight of the Company and its businesses. It is responsible for establishing the Company's strategy, purpose, values and culture. It considers key stakeholders in its decision making and, in doing so, ensures that Directors comply with their duty under section 172 of the Companies Act 2006 (see our Section 172(1) Statement).

Our stakeholders considered in Board discussions

Colleagues Investors Regulators Communities Customers Suppliers

Strategy

Performance	The Board discussed with the Chief Executive his monthly report, which updates on the Group's overall performance, business unit operations, progress against strategy and engagement with stakeholders including colleagues. The Board also spent time with the different business unit Presidents, with a particular focus on being updated on the progress and key challenges and progress of the integration of UK ED.
Strategic priorities	With a dynamic external environment, the Board has spent a lot of its time discussing our strategic priorities and the execution of these with management. External insights were provided throughout the year to enhance the Board's understanding of different stakeholder perspectives and increase knowledge on the industry and macro issues impacting the business in both the UK and the US to enable well-rounded Board discussions. This included discussions with externals in a wide range of areas – financial, political, business – and stakeholders such as regulators, government and investors. Whilst the Board considers strategy at every meeting, it holds an annual strategy meeting to focus on the main strategic questions and longer-term growth opportunities impacting the Group and the business units and the key areas of focus, challenges and risks to delivering our priorities and plans to address or mitigate these, including our financing strategy.
Our commitment to reach net zero	The Board discussed ESG matters, including key strategic enhancements to keep pace with stakeholder expectations and how these align with our commitments as a responsible business. The Safety & Sustainability Committee oversees our sustainability strategy and progress in this area which it reports to the Board. On the recommendation of the Safety & Sustainability Committee, the Board approved the Climate Transition Plan in May 2022 and recommended its approval to shareholders at the 2022 AGM (see page 75).
Strategic Business Plan and budget	The Board discussed and approved the Strategic Business Plan, to promote alignment of financial performance, and the annual budget.
Dividend	The Board considered the dividend policy, which provides for growth of the dividend in line with UK CPIH. It also approved the 2022/23 interim and proposed 2022/23 final dividend.
RIIO-ED2	The Board discussed with management the impact and areas of challenge we would seek under the Draft Determination under RIIO-ED2. Further to the publication of the Final Determination, the Board undertook a thorough review with management on the impact and ability to deliver on these including whether to appeal. The Board decided that it would accept the price control arrangements in March 2023 (see page 75).
Impacts on the UK energy market	As Russia's invasion of Ukraine continued throughout 2022/23, the Board was briefed on the significant impacts on the UK energy market, including the high and volatile prices, impact on consumers and impacts on Group and how we were mitigating against these. This included oversight of the impact on affordability and UK Security of Supply, cyber security and potential cost recovery. Following publication of the British Energy Security Strategy, the Board received updates on the impact of the increased ambition from the UK government and joined an enrichment session to consider the impact on the Group.
Future System Operator	Further to the announcement of the planned separation of the UK ESO from the Group as an independent Future System Operator, the Board has been kept updated on progress of this, including the progress of the Energy Bill through Parliament, the ongoing engagement with the Department for Energy Security and Net Zero, the potential impact on employees and the implications for the Group.

Execution of strategy

Oversight and execution of strategy	The Board continued to keep under review the Group's portfolio to ensure we are best positioned to drive value for our shareholders. In particular, given the evolving regulatory and political landscape and stakeholder sentiment, the Board spent time discussing the opportunities and risks facing each of our businesses and how we are managing these. This included ensuring the political and regulatory frameworks in the jurisdictions in which we operate are supportive to enable the execution of our plans and capital investment. The Board is particularly mindful of this as we seek to develop the critical infrastructure needed to update the network on the East Coast. Further to the approval of the sale of NECO and majority stake in UK Gas Transmission and Metering business last year, the Board was kept updated on the status of these transactions as they proceeded to completion. The Board approved the sale of 26.25% equity interest in Millennium Gas Pipeline Company, LLC (see page 75).
Financial performance	The Board was updated by the CFO at each meeting on the current financial performance for the period against budget and full-year outlook. The Board considered and approved the half-year and full-year results, including any external guidance. The Board received regular reports on our top shareholders, movements in the share register, share price performance and how we are engaging with institutional investors and analysts. The interaction with debt investors is discussed with the Finance Committee.
Litigation and compliance	The Board was kept updated on internal compliance investigations and litigation and the impact on our stakeholders and reputation.

People and culture

Culture	The Board monitored and assessed both the culture of the Group and its alignment with the Company's purpose, values and strategy (see page 76).
Community and employee support	Given the backdrop of rising wholesale gas prices and increasing energy bills, the Board discussed, and approved, financial support packages to run across two years to our communities in both the UK and US. Together with management, it agreed to thank our colleagues with a £500/$600 payment and establish other initiatives to support colleagues during the challenging winter period.
Safety	The Board with the support of the Safety & Sustainability Committee monitored safety performance throughout the year. Updates were received on the investigation into the fatality in Medford, Massachusetts. The learnings were shared with the whole organisation and we have changed our approach to safety through our Stand Up For Safety campaign.

Risk, controls and governance

Review and approval of Group Principal Risks and emerging risks	The Board with the support of the Audit & Risk Committee keeps under review the Group's systems of risk management including the GPRs and emerging risks and how we manage them. The Board agreed to add three new principal risks to our profile: (i) major project delivery; (ii) financing our business; and (iii) energy balancing. The Board reviewed and approved the effectiveness of the Group's risk management system, following recommendation from the Audit & Risk Committee. You can read more about our risks on pages 20 – 24. As part of ensuring that the Board is comfortable with the Group's cyber security risk, it also met with the National Cyber Security Centre to discuss its role and strategy and how the Board can be comfortable with the assurance it gains from the organisation in this area.
Governance	The Board reviewed and approved changes to the composition of the Committees including the Committee chairs and undertook an annual review of the Terms of Reference approving any changes.
AGM	The Board approved the arrangements for our first hybrid AGM in 2022.
Annual Report and Form 20-F	The Board considered the Annual Report, which was subsequently approved on the recommendation of the Audit & Risk Committee (see page 83), on the basis that, taken as a whole, it is fair, balanced and understandable and provides the information necessary for shareholders to accurately assess the Group's position and performance, business model and strategy. The Board also considered and approved the Annual Report on the Form 20-F.

Key decisions and engagement

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

Section 172(1) Statement

During the year, the Directors acted in the way they considered, in good faith, most likely to promote the long-term success of the Company for the benefit of its members as a whole, with due regard to stakeholders and the matters set out in section 172 of the Companies Act 2006.

The Board recognises its responsibilities to each of the Group's stakeholder groups and to wider society. The Directors endeavour to ascertain the interests and views of our stakeholders and consider these when making decisions.

The Board acknowledges its responsibility for setting and monitoring the culture, values and reputation of the Group. Every day our colleagues seek to live by our values – do the right thing, find a better way and make it happen – and use these to guide how we make decisions. When making decisions, the Directors have regard to all stakeholders but also acknowledge that not every decision will result in each stakeholder's preferred outcome. The Board strives to balance the different and competing priorities and interests of our stakeholders in a way compatible with the long-term, sustainable success of the business and which maintains a standard of business conduct aligned to our values and purpose.

Pages 72 to 78 comprise our Section 172(1) Statement.

Further details on how we engage with our stakeholders can be found on **pages 36 to 37**

Our Board's engagement is detailed on **pages 77 to 78**

How the Board had regard to Section 172 factors

Section 172	Key examples
A The likely consequence of any decisions in the long term	Our strategy and business model, **pages 4 – 5 and pages 12 – 13**
B The interests of employees	Workforce engagement, **pages 77 – 78** Our people, **page 34**
C The need to foster the company's business relationships with suppliers, customers and others	Our commitment to being a responsible business, **pages 33 – 35**
D Impact of operations on the community and environment	Our commitment to being a responsible business, **pages 33 – 35** TCFD, **pages 38 – 51**
E Maintaining a reputation for high standards of business conduct	Our commitment to being a responsible business, **pages 33 – 35** How the Board operates, **page 68**
F The need to act fairly as between members of the company	Shareholder engagement, **pages 36 – 37 and page 78**

Decisions taken during the year

The following table provides some examples of decisions taken by our Board during the year which demonstrate how section 172 has been taken into account as part of Board discussions and decision making. The Board's key focus areas for 2022/23 can be found on pages 72 and 73.

Key decisions

Sale of Millennium Gas Pipeline

Section 172 considerations

A B C D E F

Context

We owned 26.25% of Millennium Gas Pipeline Company, LLC, which owns and operates the Millennium Pipeline, a FERC-regulated natural gas pipeline in New York state. The stake was a non-operational, minority interest.

Stakeholder groups considered

Decision taken

The Board approved the sale of our 26.25% stake for a cash purchase price of $552 million to DT Midstream, an existing partner. The Board noted that the supply to customers would be unaffected as National Grid will remain a shipper through the pipeline for the foreseeable future and the transaction allowed the Group to crystallise value from a non-core asset.

Acceptance of RIIO-ED2 Final Determination

Section 172 considerations

A B C D E F

Context

In November 2022, Ofgem published its Final Determination for the RIIO-ED2 framework covering our UKED regulated business for the period from April 2023 to March 2028. Management completed a detailed review of the full package to assess whether it incentivised sufficient investment to ensure safe, secure and reliable supply of electricity alongside the need to help transition to a low carbon domestic energy system, at the lowest cost to customers.

Stakeholder groups considered

Decision taken

The Board considered the assessment in detail, reviewing, inter alia, the detailed engagement with Ofgem, the longer-term financial impact of the proposed framework on the various stakeholders within our business and the associated risks to the Group. It approved that it would accept all of the RIIO-ED2 price control arrangements proposed by Ofgem in its Final Determination.

These price controls will further accelerate our delivery of smart, decarbonised electricity distribution networks in the UK, at the lowest-level cost to customers. They also form an important part of the Group's financial framework (see page 17), with up to £40 billion of investment between 2021 and 2026, as we continue the journey towards net zero, and a clean, fair and affordable energy future.

Climate Transition Plan (CTP)

Section 172 considerations

A B C D E F

Context

The Company has set, and is working towards, ambitious targets to reach net zero by 2050. The CTP sets out the Company's plans, actions and assumptions enabling it to achieve its Scope 1, 2 and 3 emissions reduction targets, aligned to the goals of the Paris Agreement.

Stakeholder groups considered

Decision taken

The Safety & Sustainability Committee considered the CTP and provided feedback on the key messages to ensure it reflected the Company's priorities. It also considered the importance of alignment to other reporting requirements around climate change.

It recommended the CTP to the Board who approved putting it to shareholders for an advisory vote at the 2022 AGM. The CTP received favourable support from over 98% of our shareholders.

Our Stakeholder groups

Colleagues · Investors · Regulators · Communities · Customers · Suppliers

How the Board monitors culture

The Board plays a significant role in monitoring and assessing both the culture of the Group and its alignment with the Company's purpose, values and strategy. It is supported by the People & Governance Committee, which identifies opportunities to strengthen culture, and the capabilities that underpin it, in a way that serves the future strategic goals of the Company.

There has been a focus on leadership capabilities, development and succession. The People & Governance Committee Chair reports back to the full Board following each meeting, which also provides the opportunity for full Board input and ensures all Board members are actively engaged in monitoring corporate culture.

The Board assesses the Company's culture and the progress being made from two key data sources:

- lagging indicators from the Grid:voice survey and the Spencer Stuart culture diagnostic; and
- leading indicators taken from the culture change activity under way across the organisation.

Lagging indicators

The findings of this year's Grid:voice survey showed positive movement across nearly all indicators. Overall engagement remains six points above the high-performing norm in the Korn Ferry benchmark*. We have also maintained top-quartile performance for 'Safe to Say', consolidating a spirit of openness and trust across the organisation. Our colleagues feel they can express their views, opinions and concerns and have confidence that action will be taken where needed. This is a strength of National Grid's culture.

* The Korn Ferry benchmark comprises the average survey scores from over 700,000 employees in 55 high performing organisations around the world in a variety of industries.

Leaders have a disproportionate influence on engagement, so the tone set from the top of the organisation is critical. Strong focus has been placed on this over the past year and, as a result, the level of belief in our strategic direction at all levels of the Company and confidence in senior leader decision making have significantly increased. The progress we saw in our 'leadership index' in 2021/22 has continued in 2022/23, with more leaders than ever behaving in line with our values, at or above our expectations. Further plans are in place for an experienced leaders programme in 2023/24 to continue this positive trajectory.

We have strengthened both 'purpose' and 'results' focus, with the former now ingrained in the core behaviours of the organisation and its people, and the latter now being the dominant leadership style at National Grid. The trait that unifies the organisation remains 'order', vital for a utility delivering the safe and reliable flow of energy to homes and businesses. The fourth defining attribute of our culture is 'caring', less common in the energy sector but a unique strength for National Grid, which aspires to become one of the most diverse, equitable and inclusive companies of the 21st Century. Our focus going forward is to now consolidate and maintain the current culture.

Leading indicators of change

In addition to the quantitative data, the Board also monitors leading indicators of change. Throughout the year this has been through the results of the organisation's 'Living our Values Everyday' campaign, 'Untapped AI' personal development coaching activity and through the 'Team Effectiveness' facilitation programme.

Looking forward

In a world where affordability is more important than ever, we will be dialling up our focus on customers, to ensure we are increasingly responsive to their needs and that we deliver for them efficiently now and in the future, as we work to deliver net zero. We have updated the behaviour statements that sit under our three values to reflect our desire for genuine customer-centricity, and work to embed this is under way. We have also put in place performance contracts for each business unit and function that connect the dots between the work colleagues do and National Grid's overall vision and strategic priorities. So, whatever their role, each colleague can now understand the positive impact of their role on Company performance and society as a whole. The Board will continue to oversee this area and monitor the progress in this area.

For further information on culture see **page 34**

Non-executive Directors on a site visit to our LNG Plant in Providence, MA

Board engagement

Engagement is key to the Group's long-term success and the Board directly and indirectly engages with key stakeholders, ensuring it understands their interests and takes them into account in Board decision making. This complements other engagement with the workforce (as set out on page 37). You can read the Board's Section 172(1) Statement on page 74.

Workforce engagement

Throughout the year we continued with our 'Full Board Employee Voice' approach, utilising and enhancing existing colleague engagement methods and communication channels to ensure meaningful engagement across all parts of the business by our Board. During the year, the Board's engagement comprised:

Small group listening sessions

These consist of mixed role/level colleagues in attendance with different Non-executive Directors. Attendees are coordinated by HR and represent a diverse mix of colleagues across our workforce. The sessions can be open discussion or on specific themes.

Engagement in action

- Five Non-executive Directors, including the Remuneration Committee Chair, met colleagues in May 2022 for a remuneration themed engagement breakfast, providing an opportunity to discuss the Group's approach to remuneration.
- Five Non-executive Directors, including the Safety & Sustainability Committee Chair, met colleagues for a climate transition and net zero themed engagement breakfast in May 2022, providing an opportunity to discuss the Group's approach to these important topics.

Employee Resource Groups (ERG)

We are proud to have 16 ERGs split across the UK and US, representing a significant and diverse proportion of the workforce. Our Board interacts with the ERGs to better understand their key areas of focus and future direction.

Engagement in action

Two Non-executive Directors attended the first ERG summit held in London in July 2022. Members of the Board also supported and spoke at virtual ERG sessions in June 2022.

The Chair was a panel member at the International Women's Day – Leaders in Energy event hosted by our Women's ERG.

Site visits

We encourage our Non-executive Directors to visit operational and field sites to hear views from operational colleagues to provide a platform for meaningful engagement whilst enhancing their understanding of our vital operations.

Engagement in action

Our Non-executive Directors visited a number of sites during the year, including the London Power Tunnels and St John's Wood substation; the Gas Transmission Main Replacement Project and LNG Providence site in Massachusetts; our UK ED control room and contact centre in Cardiff.

Meeting talent

To enable our Board to meet our high-potential colleagues informally, we periodically have opportunities for members of the Board to meet the broader colleague population.

Engagement in action

Our Board met our UK ET leadership team for dinner in July 2022 and our New England leadership team for breakfast in September 2022. Members of the Audit & Risk Committee and Safety & Sustainability Committee also met with colleagues in the Finance and Safety and Sustainability teams respectively in Boston in September 2022.

Other activities

Our Board have undertaken other engagement activities throughout the year to reflect on our operational performance and significant achievements.

Engagement in action

- One Non-executive Director and the Chief Executive attended a dinner in October 2022 in Boston to recognise engineers involved in world-leading Energy Transition projects including T-Pylons, the UK's new nuclear power station and the Storm Eunice response. The event provided the opportunity for individuals to discuss a range of topics.
- Two Non-executive Directors toured the Company's storm response organisation in Buffalo, NY during an actual storm deployment; three Directors attended an event in Buffalo, NY hosted by our Chief Executive to recognise our US colleagues working during the significant storms experienced during the winter.
- Our Chair routinely visits our UK and US sites to meet with operating and planning teams.
- Our Chief Executive holds biannual colleague webcasts which provide all colleagues the opportunity to ask him questions on any subject in an informal forum. Alongside the CFO, he also holds monthly discussions with the Senior Leadership Group.

Feedback and engagement insight

Following engagement activities, the Board takes the time to discuss the views of the workforce and take these into consideration throughout wider Board and Committee discussions. To supplement direct engagement, periodic updates are shared by management on progress with engagement and culture through our two main colleague insight tools – the Grid:voice engagement survey and the employee culture diagnostic.

Further details on Grid:voice can be found on **page 34**

Looking ahead

The People & Governance Committee monitors the effectiveness of the programme and reviews our chosen mechanism under the Code. In January 2023, it reviewed the current mechanism and continued to feel that the variety of engagement is a great way of building and maintaining trust and communication whilst providing our colleagues with an appropriate forum to influence change and agreed that the current approach remained appropriate. For 2023/24, the Board has considered other opportunities to continue to refine and strengthen this and allow for Directors to continue to immerse themselves in the culture and operations of the Group.

Shareholder engagement

The Board is committed to maintaining strong communications with our investors (both equity and debt). The Company has a comprehensive investor relations programme where it meets a range of key investors in person or virtually at small meetings and larger investor roadshow events. The Chair has made routine contact with shareholders who are interested in discussing Board governance. In addition, Committee Chairs such as the Remuneration Committee Chair engage specifically on topics within their responsibility. Management also hosts webcasts for both our half-year and full-year results and takes questions from investors and analysts to ensure an open dialogue with the market. Presentations are given to analysts and investors covering the Group's results, along with all results and other regulatory announcements. This information can be found on our website at **nationalgrid.com/investors**

The Board gets regular reports on our top shareholders, movements in the share register, share price performance and how we are engaging with institutional investors and analysts. It also discusses shareholder issues with management and advisors and considers these as part of its decision making.

Investor events

We hold a range of events to provide engagement opportunities with our investors. This included continuing our 'Grid Guide to' series, which consists of short, virtual sessions covering our ambitions and progress across a range of themes. Some of the key sessions of our 2022/23 programme included:

- June 2022 – ESG Investor Webinar
- July 2022 – NY Investor Event
- January 2023 – GLIO Investor Seminar
- March 2023 – Grid Guide to Enabling EVs and modernising our networks in Massachusetts

Further details and supporting materials from these events can be found in the investor section on our website: **nationalgrid.com/investors/events/grid-guide**

AGM

Our AGM is another opportunity for the Board to meet and engage with shareholders. We were pleased to hold our 2022 AGM as a hybrid meeting in London. This was the first meeting we were able to hold for in person attendance since the onset of the COVID-19 pandemic. We had a good number of shareholders attending electronically and asking questions which enables us to broaden our engagement with those who may not be able to be with us in person. The comprehensive support from our shareholders for our CTP was a great acknowledgement of our vital role in the energy transition and our pathway to becoming a net zero business by 2050.

We will once again look to hold the 2023 AGM as a hybrid meeting. Details are included in our Notice of Meeting which is made available to shareholders in advance of the meeting and available on our website.

Board performance evaluation

Our annual evaluation process provides the Board and its Committees with an opportunity to consider and reflect on the quality and effectiveness of their decision making, and for each member to consider their own contribution and performance. Following on from the externally facilitated evaluation in 2021/22, the Board again engaged Independent Board Evaluation (IBE) in 2022/23 as a continuation of the prior year evaluation, to check in on progress given the embedding of newer Directors and to consider further areas of strengthening the relationship and effectiveness of the Board.

A mix of meeting observation and interviews has been used, with individual feedback for each Director, including the Chair, on Board dynamics, working with management and effective use of Board time.

Neither the principal consultant nor IBE has any connection with the Company or individual Directors.

Findings of the Board evaluation

Our 2022/23 Board evaluation found that the focus on strategy has led to greater clarity and an agreed direction of travel between Board and management and the refreshment of the Board skills and a diversity of perspectives and views to our boardroom discussions. There are further opportunities to strengthen our focus on talent and succession. The findings also indicated a need to monitor performance metrics as various business units meet with the Board throughout 2023/24.

Performance of the Chair

As part of IBE's evaluation, in line with the Code, each individual Director's effectiveness was evaluated, including our Chair's performance. Detailed feedback was shared directly with the Senior Independent Director, Thérèse Esperdy. Thérèse also discussed the views of the Chair with each Director. An overview of the findings was shared during a private session between Thérèse and Paula.

Board performance evaluation – progress against 2022/23 actions

Focus area	Board actions for 2022/23	Progress against actions
Strategy	• Finalise Board strategic topics for 2022/23 and ensure agendas align.	Agreed an area of strategic topics to be covered through the year and in particular the key questions to tackle with the Board as part of the annual Strategy meeting.
Capability	• Strengthen focus on talent and succession at all levels. Include regular reviews on People & Governance agendas and align with opportunities for the Board to meet high-potential employees.	Continued the review of individual talent evaluations and succession plans. Reviewed the progress of increasing diversity in the workforce via the People & Governance Committee.
Culture	• Incorporate the results of the culture scorecard in People & Governance Committee deliberations.	Positive shift in results focus across the organisation and our 'Purpose' is ingrained in our culture.
Employee engagement	• Review and refine the overall approach to employee engagement. • Ensure key insights from engagement opportunities are shared with the Board.	The People & Governance Committee reviewed our current approach and believes it continues to be best for the Company (see page 77). The Board discussed and agreed areas to further refine and strengthen this for 2023/24.
Engagement with management	• Ensure effective communication flows to provide the right insights, including early sight of emerging issues when required.	Updates are shared via the Chief Executive's monthly updates either at each Board meeting or as ad hoc notes when there is not a scheduled Board meeting. The Board is informed as appropriate on emerging issues through updates as required.
Process and meeting management	• Continue to improve discipline around Board papers and processes. • Routinely bring outside views into the boardroom.	We continue to refine content and messaging within our Board papers. There have been a number of external speakers at both Board and Committee meetings and at engagements sessions outside of these.
ESG	• Ensure that ESG commitments are embedded in the Board's stewardship.	Thorough review of our climate and related ambitions, goals, measurements and progress by the Safety & Sustainability Committee and discussion at each Board meeting regarding areas of focus.

Directors' induction, development and training

Together with the support of the Group General Counsel and Company Secretary and her team, the Chair has overall responsibility for ensuring that our Non-executive Directors receive a comprehensive induction and ongoing development and training. The induction programme and induction pack are tailored to their experience, background, Committee membership and requirements of their role. They are encouraged to engage with the business by visiting sites in the UK and US. As our internal and external business environment continues to change, it is important to ensure that Directors' skills and knowledge are refreshed and updated regularly.

As part of continuing to enhance their knowledge of the business, during the year, the Board attended a series of enrichment sessions on a number of topics including ESG, the British Energy Security Strategy, energy futures and US utility regulation, supply chain & inflation and winter outlook and preparedness. They also received corporate governance updates, investor guidelines and potential changes to legislation and regulation through updates to the Board or the relevant Committees.

Iain Mackay's induction

Iain received a comprehensive induction in which he met and heard from key stakeholders responsible for the delivery of the Group's strategy, key business operations and matters pertinent to his Committee roles. This is detailed in the table below. Specific focus was given to prepare Iain to step into the role of Chair of the Audit & Risk Committee from January 2023. Iain visited our LNG Plant in Providence, Massachusetts in September 2022 with some fellow Board members to observe our operations in action and meet colleagues to gain further insight into our culture.

Time commitment

The Board monitors and approves significant external appointments in advance and considers any potential conflicts of interest when it agrees that a Director can take on a new appointment (see page 229). On accepting their appointment with the Company, Directors must confirm they are able to allocate sufficient time to discharge their responsibilities effectively. Directors are expected to attend meetings of the Board and any Committees of which they are members and devote sufficient time to prepare for this in advance.

They also are encouraged to visit different offices and sites. Before accepting new external appointments, Directors are required to obtain the prior approval of the Board. The Board considered Liz Hewitt's proposed appointment as a non-executive director of Glencore plc in July 2022; Tony Wood's proposed appointment as a non-executive director of Airbus SE in December 2022; and Iain Mackay's proposed appointment as a non-executive director of Schroders plc in January 2024 in light of their other appointments and roles on the Board. It was concluded that the appointments would not impact their ability to perform their duties as a Non-executive Director of the Company, and accordingly the Board gave its prior approval in each instance.

Re-election of Directors

The People & Governance Committee considers, in respect of each Director, their skills and experience, time commitment and tenure as part of the Board's recommendation to shareholders for their re-election of Directors. Each Director has confirmed that they are willing to be re-elected. The Board believes that each Director who is being put forward for re-election at the 2023 AGM brings considerable knowledge, wide-ranging skills and experience to the Board, makes an effective and valuable contribution and continues to demonstrate commitment to their role. The Board also considered the continued independence of Non-executive Directors as part of its consideration of the re-election of Directors. The Board continues to consider all Non-executive Directors as being independent in line with the Code.

Director's induction – Iain Mackay

Induction area	Provided by	Topics covered
Governance and Directors' duties	• Chair of the Board • Group General Counsel & Company Secretary • Head of Secretariat • External Legal Counsel	• Priority areas for the Board • Governance framework and corporate structure • Overall legal matters • Director duties for a listed company • Market Abuse Regulation
Audit & Risk	• Incumbent Chair of the Audit & Risk Committee • CFO • Group Head of Audit • Chief Risk Officer • Group Financial Controller • External Auditor (Deloitte) • Regional CFOs	• Priority areas for the Audit & Risk Committee • Regulatory finance model • Financial reporting framework • Risk management framework and principal risks • External audit including lead partner succession
Remuneration	• Chair of the Remuneration Committee • Chief People & Culture Officer • Group Head of Reward • External remuneration consultant (PwC)	• Priority areas for the Remuneration Committee • Directors' Remuneration Policy • Remuneration matters including broader workforce engagement
Safety & Sustainability	• Group Head of Safety • Group Chief Engineer	• Priority areas for the Safety & Sustainability Committee • National Grid's approach to safety and sustainability • Engineering assurance • Climate change and climate risk
Strategy	• Chief Strategy & External Affairs Officer • Chief Sustainability Officer	• National Grid's strategy and transition to net zero

People & Governance Committee report

Key activities during the year

- Approved a new Non-executive Director appointment
- Reviewed and approved the refreshed Board Diversity, Equity and Inclusion (DEI) Policy and monitored progress against objectives
- Focused on executive succession planning

Composition and Committee attendance

The Committee is made up of four independent Non-executive Directors and the Chair of the Board.

Committee members	Attendance
Paula Rosput Reynolds ●	5/5
Thérèse Esperdy	5/5
Jonathan Silver	5/5
Earl Shipp	5/5
Tony Wood	5/5

● Committee Chair

Culture

High-performing organisations are characterised by, among other things, clarity on goals and performance. National Grid is purpose led, which reflects our long-term outlook in respect of the energy transition and our role as a responsible business. This is anchored in our core behaviours and is a unifying aspect of our culture. The Committee discussed the progress against our cultural ambitions during the year noting improvements in key elements and also areas where further progress is desirable.

See page 76 to read more about how we as a Board monitor culture.

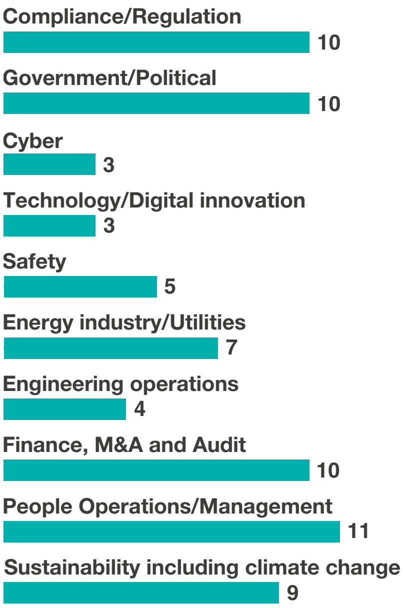
Board succession and composition

The Committee and I spent a fair amount of time during the year discussing succession planning and ongoing progressive Board refreshment. We are cognisant of having a Board that remains balanced in experience, skills, diversity, independence and tenure. We view diversity through a broader lens than just gender and ethnicity.

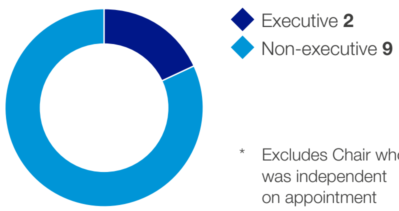
Board skills

In January 2023, we refreshed our Board skills matrix as part of ensuring it continues to reflect the skills required from the Board as a whole to support the business in line with its strategy and to meet future challenges. We sought to simplify and focus these to the top 10 key skills set out below. This matrix is used to inform searches for Non-executive Directors and consider the overall composition of the Board.

Board skills and experience

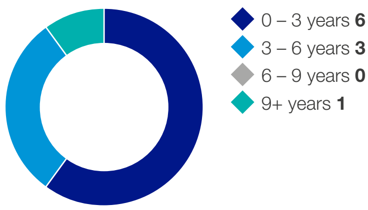


Board independence*



* Excludes Chair who was independent on appointment

Non-executive Directors' tenure



Diversity, Equity and Inclusion (DEI)

We believe that DEI is a vital part of our efforts in building the talent and capabilities we need for the future to deliver on our purpose and strategic priorities. Our vision is to build and develop an inclusive culture and diverse workforce that is representative of the communities we serve. At each meeting, the Committee starts with a 'DEI moment' to focus attention on areas in which the Company is addressing and nurturing various aspects of the employee experience. Our Group Chief Diversity Officer has met with the Committee to review the global DEI strategy including the progress against our DEI commitments and changes to corresponding targets under the RBC.

Information on DEI throughout the organisation is set out on page 17.

We also recognise the Board's role in exemplifying its commitment to diversity at a leadership level and this is set out in the Board DEI Policy. The Committee monitored the Board's progress against its objectives:

Objectives	Progress as at 31 March 2023
The Board aspires to comprise at least 40% women on our Board.	**Objective exceeded:** There are five female Directors on the Board, resulting in 42% women on our Board.
The Board aspires to comprise at least one of the senior Board positions (Chair, Chief Executive, Chief Financial Officer or Senior Independent Director) is a woman.	**Objective exceeded:** The Chair and Senior Independent Director are both women.
The Board aspires to comprise at least one Director from a minority ethnic background.*	**Objective exceeded:** We currently have two Directors from a minority ethnic background.
The Board aspires to achieve 50% diversity** on our Board.	**Objective met:** We currently have 50% diversity on the Board.

* The following categories are used to define those from a minority ethnic background: Asian/Asian British; Black/African/Caribbean/Black British; Mixed/Multiple Ethnic Groups; other ethnic group, including Arab

** Diversity of the Board is defined, in this context, as female and individuals from a minority ethnic background.

As part of executive succession planning, the Committee also strives to challenge bias in appointments and succession plans and ensure that they are made on the basis of merit and objective criteria.

In accordance with Listing Rule 9.8.6R(10), as at 31 March 2023, the numerical data on the gender identity and ethnic background of our Board and Group Executive Committee is as follows:

			Number	% 2023	% 2022
Gender	Board members	Women	5	41.7	46.2
		Men	7	58.3	53.8
	Senior positions on Board*	Women	2	50.0	50.0
		Men	2	50.0	50.0
	Group Executive Committee	Women	4	36.4	N/A
		Men	7	63.6	N/A
	Senior Leadership Group**	Women	59	40.1	N/A
		Men	88	59.9	N/A

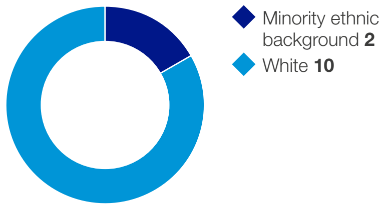
		Number of Board members	Percentage of the Board	Senior Positions on Board*	Group Executive Committee	Percentage of Group Executive Committee	Senior Leadership Group**	Percentage of Senior Leadership Group
Ethnicity	White British or other White (including minority-white groups)	10	83.3%	4	10	90.9%	117	80%
	Mixed/Multiple ethnic group	–	–	–	–	–	2	1%
	Asian/Asian British	–	–	–	–	–	10	7%
	Black/African/Caribbean/Black British	2	16.7%	–	1	–	7	5%
	Other ethnic group, including Arab	–	–	–	–	9.1%	1	1%
	Not specified/prefer not to say	–	–	–	–	–	10	7%

* Senior positions on Board refer to the Chair, Chief Executive, Chief Financial Officer and Senior Independent Director.

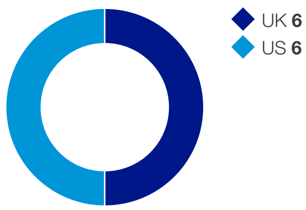
** Senior Leadership Group includes all direct reports to Group Executive Committee members and Directors of our subsidiary entities.

Gender representation

Ethnicity representation



Board nationality



Approach to collating diversity data

Data is sourced from MyHub (our People system) containing all permanent colleague details, as at 31 March 2023. All diversity information for ethnicity is based on voluntary self-declaration. For Non-executive Directors, we collect data through our annual year-end Director data collection.

Board appointments

As part of ongoing succession planning, the Committee recommended the appointment of Iain Mackay following a transparent and thorough process outlined below:

- Russell Reynold Associates and MWM Consulting were appointed jointly as the firms for the search. There are no connections between the search firms and the Company and its individual Directors. Both are also signed up to the Voluntary Code of Conduct for Executive Search Firms in line with the Board DEI Policy. They discussed the skills and experience needed for the new Director.
- A shortlist of candidates was considered by the Committee with preferred candidates meeting with a sub-set of Directors, who provided feedback to the Committee.
- The Committee recommended the appointment of Iain Mackay as an independent Non-executive Director, which was subsequently approved by the Board.

The Committee continues to keep succession planning under review particularly for longer-serving Directors. We are conscious Thérèse Esperdy reached her nine-year tenure as a Non-executive Director in March 2023. Accordingly, the Committee and the Board undertook a thorough review of her independence. The Committee considered her personal qualities and circumstances, including any business or relationships that could materially interfere with her ability to exercise objective or independent judgement or her ability to act in the best interests of the Group. Both the Committee and the Board concluded that she continues to be independent of management and a valuable Director, with experience in the areas of finance, risk, control and governance. Given the number of recent changes to the Board, we are mindful of balancing the longer and newer serving Directors to retain knowledge and experience and have agreed with Thérèse that she will remain on the Board until 31 December 2023. This will allow continuity and ensure an orderly succession of her roles. The Board, together with the Committee, are actively searching for new Non-executive Directors and are considering the skills and experience we need, as well as ensuring we continue to seek to meet our diversity commitments in the Board DEI Policy.

Group Executive Committee succession planning and talent

Last year I set out our approach to ensuring we had a robust process of reviewing management development and executive succession. We have made progress, in conjunction with our Chief Executive and Chief People & Culture Officer, in reviewing the succession pipeline for many of the key roles in the Company, development plans for our emerging leaders and identifying where we need to introduce new skills and experience into the organisation.

The Committee has spent time focusing on leadership and talent at the senior leadership level, in particular the Group Executive Committee members, as we adapt our operating model to continue to deliver on our strategic priorities. The Board, on the recommendation of the Committee, approved a few changes to the Group Executive Committee during the year, with Carl Trowell joining as President of the new Strategic Infrastructure business unit and Cordi O'Hara becoming President of UK ED.

Paula Rosput Reynolds

Paula Rosput Reynolds
Committee Chair

Audit & Risk Committee report

Key activities during the year

- Focused on internal controls
- Reviewed strategic transaction accounting
- Further focus on risk management

Composition and Committee attendance

The Committee is made up of five independent Non-executive Directors.

Committee members	Attendance
Iain Mackay[1] ●	4/4
Thérèse Esperdy	5/5
Liz Hewitt[2]	5/5
Ian Livingston	5/5
Jonathan Silver	5/5
Former Committee members	**Attendance**
Amanda Mesler[3]	1/1

● Committee Chair

1. Iain Mackay joined the Committee effective 11 July 2022 and became Committee Chair effective 1 January 2023. Iain chaired two out of five meetings during the year.
2. Liz Hewitt stepped down from her role as Chair of the Audit & Risk Committee effective 1 January 2023. Liz chaired three out of five meetings during the year.
3. Amanda Mesler stepped down from the Board and the Committee effective 11 July 2022.

Review of the year

I'm delighted to be writing to you following my appointment as Committee Chair during the financial year. As a Committee, we met five times, which included an ad hoc meeting to allow us to step back and focus on our financial reporting control environment and cyber security, which continues to be front of mind as a GPR in an ever-changing macro environment. I would like to thank Liz Hewitt for her time as Committee Chair; she has supported me with a comprehensive handover and continues to add value to our deliberations as a Committee member.

As Committee Chair, I met with the Deloitte lead Audit Partner, the Group Head of Audit and management as appropriate to discuss specific items of focus to report to the Committee. After each meeting, I also reported back to the Board on the Committee's activities, the main issues discussed and matters of particular relevance, with the Board receiving copies of the Committee's meeting papers and minutes. I frequently meet with the regular attendees to ensure that the Committee is focused on the relevant matters and can support and constructively challenge their work.

During the year, Chris Thomas stepped into the role of lead Audit Partner, following Doug King having completed his five-year rotation on the account. Ensuring a smooth transition was a major focus of the year, supported by a number of handover meetings.

Transactions

We have performed an active role monitoring the progress of the various transactions across the Group that fall within our remit. We have received updates from management in relation to NGED's ongoing financial controls integration and the accounting issues linked to the sale of NECO and the majority stake in UK Gas Transmission & Metering, taking time to review management's accounting judgements and the audit conclusions in relation to these key strategic transactions.

Internal controls

Evaluating the effectiveness of the internal control environment is key to presenting a fair, balanced and understandable assessment of the Group's current position and prospects. The Committee requested a deep dive during the year on financial reporting controls and the roadmap to increase automation and improve controls culture. This allowed us to monitor this key maturity journey during a period of significant transformation for National Grid and provide guidance using Committee members' wealth of experience from other sectors. The Committee will continue to monitor through regular reporting in 2023/24, supporting and challenging the team on our approach and progress.

I. J. Mackay

Iain Mackay
Committee Chair

Committee financial experience

The Board is satisfied that all Committee members are suitably qualified with recent and relevant financial experience and competence in accounting or auditing or both. The Committee as a whole is deemed to have competence relevant to the sector in which the Company operates. For the purposes of the US Sarbanes-Oxley Act of 2002 (SOx), Iain Mackay is the Committee's financial expert.

Fair, balanced and understandable

In May 2023, the Committee reviewed the Annual Report and Accounts, having previously fed back on earlier drafts. The Committee concluded that the Annual Report and Accounts, taken as a whole, was fair, balanced and understandable and provided the information necessary for shareholders to assess the Group's position, performance, business model and strategy. It also considered the TCFD (see pages 38 – 51) and the potential impact on forward-looking assumptions supporting going concern and viability assessments. In its assessment, it considered that the following had been carried out and this formed the basis of its recommendation to the Board:

- a full verification exercise to review the content of statements made with supporting evidence; and
- a comprehensive review by management, including Group Executive Committee members, to consider the accuracy and consistency of messaging and overall balance.

Significant issues/judgements relating to the financial statements

The significant issues and judgements considered for the year ended 31 March 2023 are set out in the following table. In addition, the Committee and the external auditor discussed the significant issues addressed by the Committee during the year. You can read more in the Independent Auditor's Report on pages 109 – 120.

Matters considered	Factors and reasons considered, including financial outcomes
NGED goodwill impairment trigger analysis and annual test	• In September and November 2022, the Committee reviewed the output of the provisional and the final goodwill and indefinite life licence intangible asset impairment trigger analysis. In particular, the Committee reviewed and agreed with management's accounting judgement that the fluctuations in discount rate resulting from the market volatility in UK gilts did not result in an impairment trigger that would necessitate a full test being undertaken. • In March and May 2023, the Committee reviewed the output of the provisional and then final impairment tests carried out as of 31 December 2022. The Committee challenged the reasonableness of the cash flow forecast duration and reviewed the key assumptions including the cash flows, discount rate and terminal value. The Committee also received Deloitte's audit conclusions over both the impairment work and the execution of management's impairment SOx controls. The Committee concluded that the judgements taken and estimates made by management are appropriate and the cashflow duration should continue to be disclosed as an area of judgement.
Useful life of gas assets in the context of climate change	• The Committee reviewed the latest regulatory and legislative developments regarding the net zero plans of the jurisdictions that we operate in and concurred with management's judgement that the Company's gas network assets will continue to have a crucial role in maintaining security, reliability and affordability of energy beyond 2050, although recognised that the scale and purpose for which the networks will be used is dependent on technological, legal and regulatory developments. The Committee agreed that the useful economic lives (UELs) of the gas network assets remain appropriate. The Committee also agreed with management that the additional disclosures and sensitivities previously added to the notes to the financial statements should be retained and approved the new climate change disclosure in note 1G.
Environmental provision cashflows and discount rate	• In May 2023, the Committee reviewed management's judgement to increase the environmental and decommissioning provision discount rate from 0.5% real to 1.5% real in light of the recent sustained increase in US government bond yield curves. The Committee agreed with management's conclusion that it was appropriate to classify the £176 million income statement credit as exceptional in line with the Group's Exceptional Items Framework. In addition, the Committee also reviewed management's accounting for the £1.9 billion of environmental remediation provisions. The Committee challenged management on the number of estimation uncertainties involved in calculating the provision and approved both the discount rate and cashflows being disclosed as a key source of estimation uncertainty, the new contingent liability disclosure in note 30 and the updated sensitivities disclosed in note 35.
Sale of a majority stake in UK Gas Transmission & Metering	• In March and May 2023, the Committee reviewed management's judgements and accounting for the sale of a majority stake in UK Gas Transmission & Metering. In particular, the Committee reviewed the calculation and classification of the gain on disposal, the valuation and classification of the Group's 40% interest in GasT TopCo Limited (being the new holding company of the UK Gas Transmission business) and the valuation and classification of derivative liability in respect of the Further Acquisition Agreement (FAA). The Committee received Deloitte's audit conclusions over management's judgements and associated SOx controls and agreed with management's recommendation that the classification of both the 40% interest in GasT TopCo Limited and the FAA should be disclosed as a key judgement and the valuation of GasT TopCo Limited should be disclosed as a key source of estimation uncertainty. This is detailed further in note 1 on page 128.
Application of the Group's Exceptional Items Framework	• Throughout the year, the Committee considered papers from management setting out how the Group's Exceptional Items Framework had been applied to certain events and transactions over the period, as set out in note 5 to the financial statements. • For each item, the Committee considered the judgements made by management, including challenging when transactions were concluded as not qualifying for exceptional treatment. • Based on the reviews performed, the Committee was satisfied this Framework had been correctly applied throughout the year.

Financial reporting

Going concern and viability

The Committee reviewed the Group's going concern statement, viability statement (as set out on page 127 and pages 25 – 27 respectively) and the supporting assessment reports prepared by management. During 2022/23, there has been a continued review of the Group's viability and going concern. The financial statements are prepared on a going concern basis such that the Company and the Group have adequate resources to continue in operation for at least 12 months from the date of signing the consolidated financial statements.

Statutory reporting framework policy

The Board has responsibility for effective management of risk for the Group including determining its risk appetite, identifying key strategic and emerging risks and reviewing the risk management and internal control framework. The Committee, in supporting the Board to assess the effectiveness of risk management and internal control processes, relies on a number of Company-specific internal control mechanisms to support the preparation of the Annual Report and Accounts and the financial reporting process. This includes both the Board and the Committees receiving regular management reports to include analysis of results, forecasts and comparisons with last year's results, and assurance from the external auditor, Deloitte.

With the regulatory environment evolving quickly, during the year, the Committee was kept fully informed of new legislation and regulation including the potential impact of the Financial Reporting Council's position paper 'Restoring trust in Audit and Corporate Governance'.

The Committee and Board receive, in advance of the full-year results, a periodic SOx report on management's opinion on the effectiveness of internal control over financial reporting. This report concerns the Group-wide programme to comply with the requirements of SOx and is received directly from the Group SOx and Controls team.

In relation to the financial statements, the Company has specific internal mechanisms that govern the financial reporting process and the preparation of the Annual Report and Accounts. The Committee oversees that the Company provides accurate, timely financial results and implements accounting standards and judgements effectively, including in relation to going concern and viability. Our financial processes include a range of system, transactional and management oversight controls. Our businesses prepare detailed monthly management reports that include analysis of their results, along with comparisons to relevant budgets, forecasts and the previous year's results. Monthly business reviews, attended by the Chief Executive and CFO, supplement these reports. Each month, the CFO presents a consolidated financial report to the Board.

Key matters considered by the Committee

In addition to the significant issues and judgements highlighted on page 84, the Committee also considered the following matters during the course of the year ended 31 March 2023:

Matters considered	Factors and reasons considered, including financial outcomes
Financial reporting	• Considered the accounting for the Group's disposal of NECO and the 26.25% equity interest in Millennium Pipeline LLC; the change in operating segments to reflect NGV as a separate reportable segment; and the impact of state COVID-19 bill credit programmes on our US retail customers' bad and doubtful accounts provision. • Monitored and reviewed the integrity of the Group's financial information and other formal documents relating to its financial performance, including the appropriateness of accounting policies. • Recommended to the Board management's key accounting judgements and key sources of estimation uncertainty, including those related to pension valuations for the 2022/23 half-year and full-year financial statements and the filing of other reports with the US Securities and Exchange Commission (SEC) containing financial information.
ESG reporting	• Received an update on the preparation of the RBR and the Company's TCFD disclosure. This included reviewing management's assessment against the recommendations of the FRC's Thematic Review of TCFD disclosures. • Received a report from PwC regarding the conclusions from its 'limited assurance' over the RBR metric reporting. • Discussed management's preparedness for the transition from voluntary to mandatory ESG reporting, including the proposed International Sustainability Standards Board standards and the SEC's proposed Climate Disclosure Rule, as well as the expected shift from limited to reasonable assurance. • Recommended to the Board the RBR and other ESG disclosures for approval.
APMs and RPMs	• Reviewed and approved the key judgements relating to the Group's Alternative Performance Measures and Regulatory Performance Measures. • Reviewed and approved the Group's Major Storms Policy.
Internal controls	• In May 2022, the CFO presented an update on the implementation of the new enterprise resource planning and general ledger system. • Received regular updates on progress towards the Group's annual US regulatory attestation. • Discussed with management its programme of work to strengthen the maturity of the Group's risk and controls framework as part of a deep dive session.
Risk and viability statement	• Received regular updates on actions being taken to monitor and manage risk in line with the Group's risk appetite. • Received confirmation from each of the business units and functions that risks are managed appropriately and continue to consider external influence and matters outside of the Group's control. • Received a bi-annual update and considered a deep dive session on cyber risk. • Monitored the internal control processes and reviewed and challenged the going concern and viability statements, including testing for reasonable worst-case scenarios. • Advised the Board that the Group's risk management processes were effective and provided sufficient assurance.
External auditor	• Received a report from Deloitte at each meeting, including updates on the status of, and results from, the annual audit process and monitoring the approach, scope and risk assessments within the external audit plan. • Considered Deloitte's reports on the 2022/23 half-year and full-year results. • Held private meetings with Deloitte and maintained dialogue throughout the year. • Engaged with Deloitte regularly during the transition to the new lead Audit Partner. • Assessed the effectiveness and independence of Deloitte, as well as continued the review and oversight of non-audit services from Deloitte. • Recommended the reappointment of Deloitte as the Company's external auditor to the Board to be recommended to shareholders at the 2023 AGM.
Corporate audit	• Received regular updates on the 2022/23 corporate audit plan and any significant findings, including themes and progress of actions identified, and approved the corporate audit plan for 2023/24. • Approved the Corporate Audit Charter which had been updated to reflect best practice and recent corporate governance developments.
Compliance, governance and disclosure matters	• Received updates on ethics and business conduct, including whistleblowing to support the oversight, management and mitigation of business conduct issues as part of the internal controls framework. • Discussed the whistleblowing procedures in place and confirmed internal procedures remained effective, noting the communications during the year to employees, including additional communications in relation to fraud and bribery. • Received bi-annual updates of compliance with external legal requirements and regulations, including any non-compliance issues and steps being taken to improve compliance across the Group. • Reviewed and approved the updated Terms of Reference for the Committee.

Risk management and internal controls

Risk management

Risk management is key to achieving our strategic priorities. The Board provides oversight and approves the system of risk management, which sets risk appetite and maintains the system of internal controls to manage risk within the Group. The Committee has delegated responsibility from the Board for the oversight of the Group's systems of internal control and risk management. This includes policies, compliance, legislation, appropriateness of financial disclosures, procedures, business conduct and internal audit. As part of the framework, our values – do the right thing, find a better way and make it happen – continue to communicate and promote a culture of integrity. The Chief Risk Officer is responsible for establishing and maintaining the Group's risk management processes to ensure the effective management of risk.

During the year, the Board provided oversight of the principal risks facing the Group (as set out on pages 20 – 24). The Committee, alongside the Safety & Sustainability Committee, provided oversight and challenge through the detailed risk reviews to ensure that processes are in place to manage risk appropriately and effective reporting to the Board is in place.

Internal control and risk management effectiveness

We continually monitor the effectiveness of our internal control and risk management processes to make sure they are effective, robust and remain fit for purpose. Controls are in place to reduce likelihood, occurrence or impact of any risk. Based on work conducted by the Committee over the year, the Committee confirmed to the Board that the assurance framework provides appropriate assurance over the internal control and risk management frameworks and that the sources of assurance received from management have sufficient authority, independence and expertise to provide objective advice and information.

This review includes financial, operational and compliance controls. The Committee also monitors and addresses any business conduct issues or compliance issues. The Certificate of Assurance process, which provides assurance to the Committee on behalf of the Board that all significant issues relating to the integrity and standard of risk management and internal controls systems across the Group have been effectively managed during the reporting period, operates via a cascade system and takes place annually in support of the Company's full-year results.

Corporate audit

Corporate audit supports the Group's risk management and internal control processes. It maintains an independent and objective approach to evaluate and enhance process developments. The appointment of the Global Head of Audit is a matter reserved for the Committee. They have responsibility for the Group's internal audit function, attend all Committee meetings and have access to the Committee Chair, and also meet with the Committee without management in attendance. The Committee regularly reviews progress of the internal audit process including significant outstanding actions. The Corporate Audit Charter was last approved by the Committee in November 2022. The Committee has also been kept informed of the transformation of the corporate audit function as it seeks to remain ahead of strategic and technological developments, effectively meets future stakeholder needs and be equipped to deal with emerging risks.

External audit

The Committee is responsible for overseeing the relationship with the external auditor.

- Deloitte is the external auditor to the Company.
- It was appointed in 2017 following a formal tender process.
- Reappointed for 2022/23 at the 2022 AGM.
- The Committee was authorised by shareholders to set Deloitte's remuneration at the 2022 AGM.
- The current lead Audit Partner is Chris Thomas, with 2022/23 being his first year following a year of shadowing his predecessor, Doug King.

Following consideration of the auditor's independence and objectivity, the audit quality and the auditor's performance, the Committee was satisfied with the effectiveness, independence and objectivity of Deloitte and recommended to the Board its reappointment for the year ended 31 March 2024. A resolution to reappoint Deloitte and give authority to the Committee to determine its remuneration will be submitted to shareholders at the 2023 AGM. The Committee considers that during 2022/23 the Company complied with the mandatory audit processes and audit committee responsibility provisions of the Competition and Markets Authority Statutory Audit Services Order 2014 and does not intend to conduct a competitive tender before the end of the current required period of 10 years. The next competitive tender is expected to begin in 2025/26. Given the independence and objectivity of Deloitte to date, the Committee remains satisfied with its performance and considers its reappointment for 2023/24 to be in the best interests of the Company.

Effectiveness, quality and performance

As part of the Committee's responsibilities, consideration is regularly given to the effectiveness of the external auditor to verify that the quality, challenge and output of the external audit process is sufficient. Throughout the year, the Committee also looks at the quality of the auditor's reports and considers its response to accounting, financial control and audit issues as they arise. To maintain high levels of quality the Committee reviews and challenges the external audit plan prior to approval.

The Committee regularly engages and receives the views of senior management and members of the Finance team in forming conclusions on auditor effectiveness.

Meetings are held around each scheduled Committee meeting, and outside the meeting cycle on a regular basis, between the Committee Chair and the external auditor without management being present, to encourage open and transparent feedback. The Committee members also meet privately with the external auditor at least twice per year.

During the year, the Committee:

- reviewed the quality of audit planning, including approach, scope, progress and level of fees;
- reviewed the outcome of recommendations from the Deloitte Insights Report (detailed below);
- held private meetings with Deloitte without management present; and
- confirmed that the Deloitte external audit process had been delivered effectively.

Audit quality insights

External auditor Insights Report

On an annual basis, the Committee receives a report summarising the financial reporting and/or internal control areas that, based on the results of the most recent audit, Deloitte considers management should prioritise during the year ahead. This year, the report included management's responses to the recommendations, along with an update on prior year recommendations.

Management survey on the external audit process

Management undertook a survey in 2022/23 that sought views from over 100 key stakeholders involved in the external audit process across the Company. The questions comprised the following areas:

- Deloitte's performance – key performance indicators included:
  - planning and scope;
  - robustness of the audit process;
  - independence and objectivity;
  - quality of delivery;
  - quality of people and service; and
  - understanding of the Company.
- National Grid's commitment to the audit.

Management, Deloitte and the Committee discussed the results of the survey in September 2022, which showed that the external auditor's score had remained consistent with the prior year. Together with the Committee, Deloitte agreed proposed actions to continue to improve the audit process and address the identified areas in its 2022/23 audit plan. The Committee considered the proposed actions to improve the phasing of audit work, ensure timely requests for information and improve coordination between Deloitte's various team supporting the audit. The survey concluded that:

- the audit contributed to the integrity of the Group's financial reporting;
- the relationship between Deloitte, the Committee and management continues to be effective; and
- Deloitte demonstrated an appropriate degree of professional scepticism and a team with the required level of skill and expertise to enable an effective audit.

Auditor independence and objectivity

The independence of the external auditor is essential to the provision of an objective opinion on the true and fair view presented in the financial statements.

The Committee considered the safeguards in place, including the annual review by corporate audit, to assess the external auditor's independence. Deloitte reported to the Committee in May 2023 that it had considered its independence in relation to the audit and confirmed that it complies with UK regulatory and professional requirements, SEC regulations and Public Company Accounting Oversight Board (PCAOB) standards and that its objectivity is not compromised. The Committee took this into account when considering the external auditor's independence and concluded that Deloitte continued to be independent for the purposes of the external audit and confirmed that this recommendation was free from third-party influence and restrictive contractual clauses.

Non-audit services

In line with the FRC's Ethical Standard and to maintain the external auditor's objectivity and independence, we have a policy governing Deloitte's provision of non-audit services.

The cap on the total fees that may be paid to the external auditor for non-audit services in any given year is 70% of the average audit fees paid in the last three financial years.

The provision of any non-audit service by the external auditor requires prior approval by the Committee. A subset of services where, due to their nature, we believe there is no threat to the auditor's independence or objectivity and have a value under £250,000 can be approved in advance by the CFO. These services are limited to:

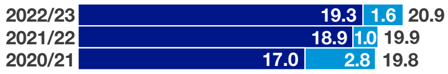
- audit, review or attest services. These are services that generally only the external auditor can provide, in connection with statutory and regulatory filings, including comfort letters, statutory audits, attest services, consents and assistance with review of filing documents; and
- the provision of access to technical publications.

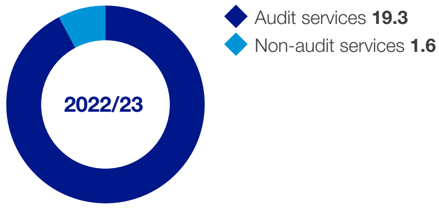
In any event, the Committee is provided with a list of all non-audit services to ensure that it is monitoring all non-audit services provided. Non-audit service approvals during 2022/23 principally related to comfort letters for debt issuances and the refresh of related debt issuance programmes.

External auditor fees

The amounts paid to the external auditor in the past two years were:

Statutory auditor's fees (£m)





Total billed non-audit services provided by Deloitte during the year ended 31 March 2023 were £1.6 million, representing 7.7% of total audit and non-audit fees. In 2021/22, non-audit services totalled £1.0 million (5.0% of total audit and non-audit fees).

Further information on the fees paid to Deloitte for audit, audit-related and other services is provided in note 4 to the financial statements on page 138.

Total audit and audit-related fees include the statutory fee and fees paid to Deloitte for other services that the external auditor is required to perform, such as regulatory audits and SOx attestation. Non-audit fees represent all non-statutory services provided by Deloitte.

Safety & Sustainability Committee report

Key activities during the year

- Recommended the Climate Transition Plan (CTP) to the Board for shareholder approval
- Reviewed the 'Stand Up For Safety' campaign and monitored implementation of principles established
- Approved the year-end sustainability disclosures

Composition and Committee attendance

The Committee is made up of four independent Non-executive Directors.

Committee members	Attendance
Earl Shipp ●	4/4
Anne Robinson	4/4
Tony Wood	4/4
Martha Wyrsch	4/4

● Committee Chair

Our CTP can be found at **nationalgrid.com/responsibility**

Review of the year

We recognise the vital role the Company has in the energy transition. At the start of the year the Committee spent time discussing with management our first CTP ahead of recommending it to the Board to put to shareholders at the 2022 AGM. It sets out challenging greenhouse gas emissions reduction targets and the pathway to becoming a net zero business by 2050. The CTP received favourable support from over 98% of our shareholders. The Committee oversees our progress against the performance measures in the RBC, which are reported in the RBR. The Committee also reviewed the sustainability content within the TCFD.

Our business unit management teams discuss with the Committee their respective safety performance culture and activities to allow the Committee to have an oversight of operations in this area as part of the review of the Group as a whole. As part of the sale of the majority stake in UK Gas Transmission & Metering, the Committee specifically considered the safety risks which were to move out of the Group at completion and significant changes to our workforce related to its sale. The Committee also considered whether any significant safety risks were being created via the transaction.

Given the increasing number of contractors supporting our operations we also discussed how safety standards and related general commitments are shared by the wider workforce.

To ensure our deliberations are well rounded, we received an external presentation from a key UK and US contractor, allowing the Committee to review the partnership and suggest areas of improvement. Committee members completed seven site visits during the year, providing an opportunity to engage with our operational colleagues and observe first hand how safety and sustainability plans are being implemented. Further details on the Board's engagement activities can be found on page 77.

Safety, wellbeing and asset protection

Safety is of paramount importance across the Group and a key priority of the Committee. The Committee monitors both process and occupational safety at every meeting and uses the business unit deep dives to provide value-adding independent oversight. The Group Chief Engineer led a discussion on the Group safety strategy refresh, highlighting the proactive measures being taken to ensure safety training materials are clear and easy to understand. Following a fatality at our Medford facility in Massachusetts in May 2022 we have since improved employee engagement in safety by raising awareness of our Fatal Risk Groups, as part of the 'Stand Up For Safety' campaign. Tragically, 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. The Committee has considered the results of the successful campaign in which particular focus was given to embedding our four safety principles throughout the organisation. You can see some of our key safety results on page 16.

The annual review of wellbeing confirmed the importance of focusing on the prevention of health and wellbeing issues, including mental health, to create an environment where employees can thrive.

We have made progress against our greenhouse gas emissions targets through targeting resource at our leak-prone pipe programme, which replaced or eliminated 360 miles (579 kilometers) of leak-prone pipe across New York and Massachusetts in 2022/23.

As with the prior year, several significant storms in the UK and US throughout this year highlighted the importance of continually reviewing our preparedness. The emergence of extreme weather impacts our assets and workforce. Our colleagues worked tirelessly to restore service to every last disconnected customer safely and securely. The Committee will continue to oversee the Group's efforts to adapt, ensuring our safety processes are robust and resilient in the long run to continue to provide reliable services to our customers.

Sustainability

The sustainability agenda, and supporting regulation, continue to grow at speed and it is vital that we are clear on how we can make an impact as a Company. The Committee's oversight was supported by a deep dive on the climate change GPR and a demonstration of the associated climate change risk modelling tool, which provides valuable insights around resilience, climate commitments and impact on our assets. Further details on this GPR can be found on page 21. We also considered the wider sustainability external outlook, allowing us to focus on how our commitments compare to our peers.

Earl Shipp

Earl Shipp
Committee Chair

Finance Committee report

Key activities during the year

- Monitored the significantly changing macro environment
- Approved the refinancing of the bridge loan in relation to the NGED acquisition
- Considered pension implications to transactions

Composition and Committee attendance

The Committee is made up of three independent Non-executive Directors and two Executive Directors.

Committee members*	Attendance
Thérèse Esperdy ●	3/3
Andy Agg	3/3
Liz Hewitt	3/3
Ian Livingston[1]	1/1
John Pettigrew	3/3

● Committee Chair

1. Ian Livingston joined the Committee as a member in January 2023.

* Jonathan Dawson stepped down from the Board and the Committee effective 11 July 2022. There were no meetings held during this period of the reporting year.

Review of the year

This year the Committee met three times monitoring the financial risk of the Group and focusing on the key areas within our remit: treasury, tax, pensions and insurance. The past year has seen major changes in financial and energy markets, with rapidly increasing interest rates, high inflation, sizeable and rapid foreign exchange movements and significantly higher energy commodity prices. Together they represent a significant change to the macro economic environment within which the Group operates.

The Committee has reviewed the financial position of the business in light of these changes to ensure the effectiveness of its wide-ranging risk management processes in place to manage this volatility and we believe that we continue to have appropriate liquidity and access to capital markets to deliver our critical role in the energy systems and the energy transition.

We have also paid close attention to ESG financing, supported by an external presentation delivered by one of our relationship banks, which helped us assess the benefits of various financing methods and market instruments to inform our ESG financing strategy.

The Committee reviewed the broader financing strategy of the Group ahead of the approval of the Strategic Business Plan by the Board. The Committee was joined by the full Board to take part in a finance enrichment session where we took a step back to consider in detail the key financial features of our businesses, how we deliver the existing investor proposition and how the overall economic model of National Grid operates.

Transactions

The Committee has continued to play a key oversight role in relation to the financing and treasury, tax and pensions matters for the Group's strategic transactions. We monitored the progress of the sale of the majority stake in UK Gas Transmission & Metering throughout the year, including the arrangements to transfer impacted members to suitable pension arrangements consistent with their future employer. We also approved the refinancing of the bridge facility used to finance the acquisition of NGED during the year, which has subsequently been repaid following the completion of the UK Gas Transmission & Metering sale.

Treasury

There has been significant uncertainty in financial markets at various stages of the year. I'm delighted that National Grid continues to attract strong investor demand in the debt capital markets at both holding and operating company levels. We monitor the action of credit rating agencies at each of our meetings.

Insurance

Like many other sectors, the insurance industry has been navigating uncertainty due to the ongoing geopolitical situation. The significant hard market trends experienced in recent years have continued, and the Committee paid close attention to progress of our 2022/23 renewals. We were pleased that all insurance policies were successfully renewed for the start of the new financial year at 1 April 2023. The Committee has also monitored progress of the insurance claim following the IFA fire in September 2021.

Tax

The Committee has stayed abreast of tax policy developments in both the UK and US. In the US the enactment of the IRA included both a new corporate minimum tax based on book profits and expanded energy tax incentives. The UK saw possible reforms of capital investment incentives, the abolition of the UK's proposed Health and Social Care Levy and the introduction of the Organisation for Economic Co-operation and Development's Pillar Two principle into UK law. In addition, we reviewed the current status of our relationship with tax authorities.

Pensions

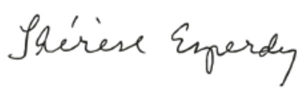
In the UK, pension investments are managed by independent Trustees. However, it is the Committee's duty to ensure funding is adequate to meet obligations, which in turn allows the Trustees to reduce investment risk for everyone's benefit. We paid close attention to our seven UK defined benefit pension arrangements, particularly following the rise in gilt yields which caused liquidity problems for many schemes. We had collateral buffers in place and were relatively unaffected by the events leading up to the Bank of England's intervention in September 2022.

The Committee has spent time overseeing the impact on our pension commitments as a result of the expected separation of the ESO and will continue to monitor this including any discussions with the UK Government.

In the US, pension investments are overseen by an internal fiduciary committee comprising senior leaders with appropriate levels of financial experience. The Committee has assessed the key strategic priorities of the US pension arrangements, noting the continued strong funding positions, and, in line with our aim to reduce investment risk within the plans, approved a derisking transaction covering $700 million of liabilities across three of our US pension plans in May 2022.

Looking forward

Given the impact of geopolitical events on energy markets and inflation in the broad economy, we continue to monitor the Group's risk appetite in relation to the Group's financing risk. We regularly review stress tests and seek to bring our expertise from other sectors of the economy to foster a holistic view of financial markets.



Thérèse Esperdy
Committee Chair

Directors' Remuneration Report

Key activities during the year

- Reviewed 2022/23 remuneration outcomes, including 2022/23 APP outturn and vesting of 2020 LTPP
- Reviewed 2023/24 APP and 2023 LTPP awards and Executive Director salaries
- Reviewed UK Gas Transmission and Metering remuneration awards at completion

Composition and Committee attendance

The Committee is made up of four independent Non-executive Directors.

Committee members	Attendance
Iain Livingston ●	6/6
Martha Wyrsch	6/6
Anne Robinson[1]	3/3
Iain Mackay[1]	2/3
Former Committee members	Attendance
Amanda Mesler[2]	3/3
Jonathan Dawson[2]	3/3

● Committee Chair

1. Anne Robinson and Iain Mackay were appointed to the Committee effective 11 July 2022.
2. Jonathan Dawson and Amanda Mesler stepped down from the Board and the Committee effective 11 July 2022.

Dear shareholders

This year has seen some of the biggest energy challenges in history, and National Grid has played a key role in providing reliable and resilient energy networks to serve our customers in both the UK and US.

The financial results of National Grid for 2022/23 have been good, with investment in regulated and non-regulated assets together with strong progress on our Group efficiency programme and UK ED integration well-progressed, yielding returns for our shareholders.

Our remuneration outturns reflect these results, and also the Group delivering for our wider stakeholders.

Society

As part of our vision to be at the heart of a clean, fair and affordable energy future, we remain committed to realising our net zero ambitions. This year we published our first Climate Transition Plan (CTP), setting out our plan to reduce Scope 1 and 2 emissions by 80% by 2030 and achieving net zero by 2050 (from a 1990 base-year). Our 2030 emissions targets have been SBTi validated and are aligned to a well below 2°C pathway. As part of our commitment and accountability to this, 20% of our 2022 and 2023 Long Term Performance Plan (LTPP) is linked to our progress towards these ambitious goals.

Consumers

Whilst in the UK our revenues are not linked to the price of energy, we are acutely aware of the affordability challenges felt by households, and are committed to playing our part in supporting consumers. We have achieved £373 million of cumulative efficiency savings as at 31 March 2023, within close reach of our target of £400 million by 2023/24, and this is enabling us to mitigate some inflationary pressures on the business and our customers. We will return a further £100 million of interconnector revenues, on top of £200 million we have already committed to return to Ofgem to allow it to support consumer bills. In addition, we have delivered a £65 million Energy Support Fund – pledging £50 million in the UK and $17 million in the US to support those struggling with increasing energy costs.

Wider workforce

The Committee considers remuneration across the wider workforce when determining executive director remuneration, policy and practices. We aim to pay our colleagues fair and competitive salaries and benefits, with the majority of our colleagues being paid well above the Living Wage. As part of this commitment, we're an accredited Living Wage employer in the UK. We are also in the process of obtaining Living Wage accreditation in the US. Our colleagues worked exceptionally hard to support our customers and communities during the winter period, and so as a gesture of appreciation we made an additional 'thank you' payment of £500/$600 to all colleagues below senior leadership level this year. We have also put in place an Emergency Support Fund for all of our colleagues facing a sudden financial hardship. We recognise that inflationary pressures are often felt more strongly by those on lower incomes, and so our approach to salary increases for 2023 takes a tiered approach to ensure the higher increases are targeted towards those colleagues on lower incomes.

In 2022/23, we have made great strides in further empowering our colleagues, a key cornerstone in our purpose and strategy. We are proud to have an 81% response rate in our employee engagement survey this year, Grid:Voice, which covered topics related to remuneration, and resulting in an overall engagement score of 81%.

As part of our commitment to creating a diverse, equitable and inclusive workforce that is fully representative of the communities we serve, we publish our ethnicity pay data, alongside our gender pay data which continues to show that we have no material gender pay gap within the UK business and globally – see our Responsible Business Report (RBR). Whilst we appreciate that there remains a great deal of work to be done to further our support of diversity, equity and inclusion (DEI), we are proud of the work that our colleagues have delivered to date and wish to build upon this progress, which is why DEI metrics are part of our executive remuneration measures.

We continue to engage with the wider workforce on a variety of topics including remuneration (more details on the 'small group listening sessions' as part of Board engagement can be found on page 77).

Performance and remuneration outcomes during the year

Salary, pension and benefits

As disclosed last year, salary increases of 3.75% and 6.50% were awarded to John Pettigrew (Chief Executive) and Andy Agg (Chief Financial Officer) respectively, effective 1 July 2022. These changes took into account external market factors and wider workforce conditions and included the last instalment of our three-year plan to bring Andy Agg's salary to a level that was broadly equivalent to market median for his role.

From 1 April 2022, the pension allowances for both John Pettigrew and Andy Agg were reduced from 23.4% and 20.0% respectively to 12.0% of salary, aligning them to pension contribution levels of the UK wider workforce and new joiners.

Annual Performance Plan (APP)

The APP for 2022/23 was based on financial performance measures (70%), operational measures (15%), and individual objectives (15%) that reflect key business and operational performance goals.

Financial performance (70%)

The outturn of the financial portion of the APP was 93.8% of the maximum, based on achievement of 100.0% of maximum for Group Underlying EPS and 87.5% of maximum for Group RoE, both equally weighted. These outcomes reflect another year of significant progress and strategic change for National Grid with good results, demonstrating execution against our key priorities and £7.7 billion investment across networks in building the clean, smarter energy infrastructure of the future.

Operational performance (15%)

Our approach to operational performance goes beyond safely maintaining the resilient energy systems society expects. It is about making sure our business has a positive impact on our stakeholders. Operational measures were equally weighted and linked to Group customer satisfaction index (50.0% of maximum achieved), performance against our Group colleague 'Having a voice' index (75.0% of maximum achieved) and Strategic Leadership Group diversity (75.0% of maximum achieved). Overall performance amounted to 66.7% of maximum.

Individual objectives (15%)

15% of the APP award is linked to individual objectives, which resulted in outturns of 80.0% of the maximum for both John Pettigrew and Andy Agg. Detailed targets and performance are set out on page 97.

Overall assessment

In reaching its overall decisions on the APP, the Committee holistically reviewed business, individual performance and delivery throughout the year, across a range of KPIs. Based on National Grid's good financial and operational performance, and taking account of performance against individual objectives, the APP payouts to John Pettigrew and Andy Agg would have been between 87.6% of maximum. However, following the fatal incident in May 2022 at Medford, Massachusetts, the Committee decided to exercise its discretion to reduce the operational portion of the APP by half from 66.7% to 33.3% for John Pettigrew and Andy Agg. This results in the overall APP award reducing to 82.6% of maximum for John Pettigrew and Andy Agg.

The Committee decision to apply downward discretion on the operational portion of the APP award – which is fully supported by management – reinforces that safety continues to be an important underpin in our APP. As mentioned in the Chief Executive's review, we have extensively focused on safety improvements this year and changed our Group-wide approach to safety through our 'Stand up for Safety' campaign.

The details of the 2022/23 APP are further outlined on pages 95 – 97.

LTPP

The measurement period of the 2020 LTPP ended on 31 March 2023 and consisted of two measures – Group Value Growth (5/6th) and Group RoE (1/6th). These targets and weightings were set to reflect the transition from RIIO-1 to RIIO-2 following shareholder consultation at that time, with details set out in our 2018/19 Annual Report.

At the time the 2020 LTPP awards were granted, the Committee had considered the potential for windfall gains to arise, but concluded that, as there had been no identifiable share price fall prior to grant, there was no case for adjusting the number of shares awarded and no apparent risk of a windfall gain arising when the shares vested in 2023. This was set out in the 2018/19 Directors' Remuneration Report at that time. When determining the payout made under the 2020 LTPP this year, the Committee reviewed again the issue of windfall gains and noted that as there had been no share price fall prior to grant or marked recovery post COVID-19, there was no issue of windfall gains arising.

The formulaic vesting outcome of the 2020 LTPP was 100.0% of the maximum. The Committee also considered the level of vesting taking into account the broader shareholder context and shareholder experience to determine whether the formulaic level of vesting was appropriate. The Committee concluded that the formulaic vesting levels appropriately reflected the strong financial performance against our Group RoE and Value Growth measures during the performance period, as well as broader delivery against our strategy and wider stakeholder objectives.

The 2022 LTPP was granted during the year, under which performance will be measured between the period 1 April 2022 to 31 March 2025. Awards will be measured based on cumulative three-year underlying EPS (40%), Group RoE (40%), Scope 1 emissions (10%) and enablement of net zero transition (10%).

The details of the LTPP awards granted and vested can be found on pages 97 – 98.

Single total figure of remuneration

The 2022/23 single total figure of remuneration for John Pettigrew and Andy Agg are £7.248 million and £4.117 million respectively. These outcomes reflect good business performance in the year, highlighted by a good outcome in the 2022/23 APP, along with a high-level of long-term value creation across a period of uncertainty, shown by the maximum payout under the 2020 LTPP. The value of the 2020 LTPP award is driven in part by the strong TSR of 31.2% over the three-year performance period. The outcomes also reflect the heavy weighting on long-term share-based pay in our reward structure.

Policy implementation in 2023/24

Salary, pension and benefits

This year's review of Executive Directors' salaries gave careful consideration to the experiences of our colleagues across the wider workforce following what has been a difficult year financially for many households. The Committee felt it was fair that the salary budget for the year was directed towards our lower-paid colleagues and sought to take a balanced approach by applying tiered increases across the organisation.

In line with this tiered approach, the Committee has awarded salary increases of 4.0% to both John Pettigrew and Andy Agg, effective from 1 July 2023. This is compared with an average salary increase of 8.7% across the UK wider workforce.

Pension and benefits remain unchanged.

2023/24 APP

Looking forward to the 2023/24 APP, the structure will remain largely unchanged from 2022/23 as the Committee looks to build on what it believes is an effective approach.

This year, we will refine the operational measures under the APP, replacing our Group colleague 'Having a voice' index with a 'Delivering Results' index to better align with our major delivery programmes. We have also updated our DEI measures to focus further on gender and ethnic diversity at senior manager level and above, as well as new joiners in our workforce. Weightings and other measures remain the same as last year.

2023 LTPP

For the 2023 LTPP grant, we have retained the financial and the net zero transition measures and weightings, making refinements to targets in order to reflect our strategic initiatives. As part of the 2023 LTPP, we will again set a three-year cumulative EPS target (40%) and Group RoE target (40%). The basis for the target ranges are set out in pages 104 – 105.

Our 2030 emissions targets have been SBTi validated and are set in line with our plan to reach net zero by 2050. For the 2022/23 LTPP these remain a combination of a reduction in our Scope 1 emissions (10%) and our enablement of net zero transition measure (10%), which focuses on specific actions to reduce our Scope 2 and Scope 3 emissions. Our CTP sets out plans to support the delivery of key emissions related ESG commitments in our RBC.

Shareholder engagement

The Committee has taken into consideration and is comfortable that the remuneration decisions stated above align with the shareholder experience. The decisions also build upon the constructive feedback received last year as part of the 2022 Directors' Remuneration Policy approval.

Conclusion

As always, the Committee and I wish to maintain an open dialogue with shareholders and I would welcome any comments or feedback.

Ian Livingston
Committee Chair

Directors' Remuneration Report

Summary of Policy table and approach taken for 2022/23 with intended approach for 2023/24

Our Directors' Remuneration Policy (Policy) sets out to ensure strong alignment with our strategic priorities and creation of value for shareholders whilst providing market competitive remuneration to enable the attraction and retention of top leadership talent. Last year the Committee conducted a review of the Policy in order to best support our strategy, making refinements to reflect the importance of the Company's responsible business strategy and ESG goals. As part of this we engaged widely with key stakeholders, and were pleased to receive 93.1% support for our revised Policy at the 2022 AGM.

2022/23 remuneration outcomes are aligned to the delivery of our strategy and reflect good business and individual performance during the year. Our approach for 2023/24 aims to continue to incentivise delivery of our strategic goals.

The Policy is available on our website at
nationalgrid.com/about-us/corporate-information/corporate-governance

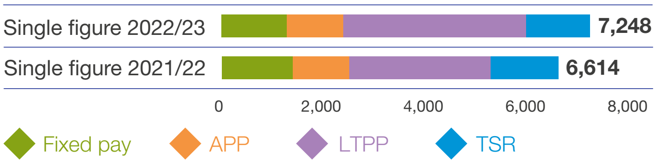
Annual report on remuneration

A comparison of the 2022/23 single total figure of remuneration to the previous year is set out below for the Executive Directors, John Pettigrew and Andy Agg. Each Executive Director is UK based. Fixed pay consists of salary, pension and benefits in kind paid during the respective financial years.

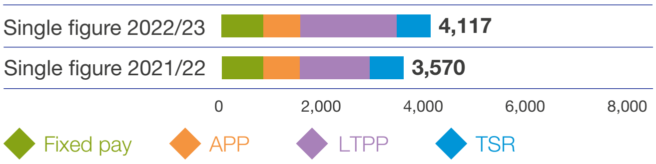
The 2022/23 single total figure of remuneration for John Pettigrew and Andy Agg are £7.248 million and £4.117 million and represent an achievement of 91.3% for John Pettigrew and Andy Agg of the total maximum opportunity.

These outcomes reflect good annual performance delivery in 2022/23 and long-term value creation as evidenced in the 2020 LTPP outcome. The single total figure of remuneration is largely driven by the heavy weighting on long-term share awards which reflects the long-term nature of our business, make up to two thirds of total remuneration and around 80% of variable pay. The 100% vesting of the LTPP reflects the strong financial performance against our Group RoE and value growth metrics during the performance period, as well as broader delivery against our strategy and wider stakeholder objectives. The value of the 2020 LTPP award is driven in part by a Total Shareholder Return (TSR) of 31.2% over the three-year performance period delivering a total value of circa £1.26 million for John Pettigrew and circa £0.66 million for Andy Agg.

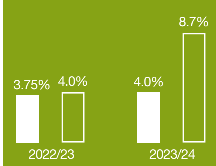
John Pettigrew (£'000)



Andy Agg (£'000)

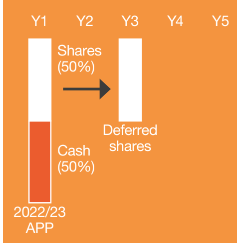


Note: The single total figure of remuneration for 2022/23 is explained in the single total figure of remuneration table for Executive Directors and single total figure for 2021/22 has been restated to reflect actual share price for 2019 LTPP vesting in 2022 and all dividend equivalent shares, consistent with comparative figures shown in this year's single total figure of remuneration table.

	Key features of Policy (adopted 2022)	Implementation of Policy in 2022/23	How we propose to implement the Policy in 2023/24
Salary increases 	• Target broadly mid-market against FTSE 11 – 40 for UK-based Executive Directors • Target the mid-market of general industry and energy services companies with similar revenue if a US-based Executive Director is appointed	• John Pettigrew's salary increased by 3.75% to £1,092,500 as of 1 July 2022, below the average increase of the wider workforce at 4% • Andy Agg's salary increased by 6.5% to £719,000 reflecting a previously communicated progressive increase to align his salary with the market rate for his role	• John Pettigrew's and Andy Agg's salaries will increase by 4.0% to £1,136,200 and £747,800 respectively – below the average increase of 8.7% across the UK wider workforce
Pension (% of salary) 	• Eligible to participate in a defined contribution scheme (or defined benefit if already a member) • All new and existing UK-based Executive Directors will receive pension contributions of up to 12% of base salary for the defined contribution scheme or cash in lieu, in line with the level for new joiners across the UK wider workforce • Pensionable pay is salary only in the UK • Other benefits as appropriate	• John Pettigrew's and Andy Agg's pension cash allowance was 12% of salary for 2022/23, in line with the UK wider workforce • Other benefits remain unchanged	• Pension and benefits will remain unchanged

	Key features of Policy (adopted 2022)	Implementation of Policy in 2022/23	How we propose to implement the Policy in 2023/24

APP



Key features of Policy (adopted 2022)

- Maximum opportunity is 125% of salary
- 50% paid in cash and 50% paid in shares net of tax, which must be retained until the later of two years or meeting the shareholding requirement
- Total APP award is subject to both malus and clawback

Implementation of Policy in 2022/23

2022/23 APP

Performance measures (%) weighting	Outturn (% of max)
Group Underlying EPS (35%)	100.0%
Group RoE (35%)	87.5%
Operational (15%)*	33.3%
Individual John Pettigrew (15%)	80.0%
Individual Andy Agg (15%)	80.0%

* As mentioned in the Chair letter, downward discretion was applied to the operational portion of APP

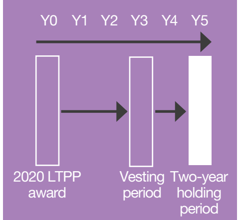
2022/23 APP outcome

	% of Maximum	Actual (£'000)	Maximum (£'000)
John Pettigrew	82.6%	1,118	1,353
Andy Agg	82.6%	731	885

How we propose to implement the Policy in 2023/24

- Measures for 2023/24:
  - Group RoE (35%)
  - Underlying EPS (35%)
  - Operational measures – Customer, Colleague, Diversity (15%)
  - Individual objectives (15%)

LTPP



Key features of Policy (adopted 2022)

- Maximum award level is 350% of salary for the Chief Executive and 300% for other Executive Directors
- Financial measures to comprise at least 60% of the LTPP; introduction of an ESG measure expected to make up 20% of the LTPP
- Vesting is subject to long-term performance conditions over a three-year performance period
- Shares (net of tax) must be retained until the later of two years from vesting or meeting the shareholding requirement
- Subject to both malus and clawback

Implementation of Policy in 2022/23

2020 LTPP

Performance measures (%) weighting	Outturn (% of max)
Group Value Growth (83.3%)	100.0%
Group RoE (16.7%)	100.0%

2020 LTPP outcome

	% of Maximum	Actual (£'000)	Maximum (£'000)
John Pettigrew	100%	4,859	4,859
Andy Agg	100%	2,564	2,564

How we propose to implement the Policy in 2023/24

- Measures for 2023/24:
  - Underlying EPS (40%)
  - Group RoE (40%)
  - Scope 1 carbon emissions (10%)
  - Enablement of net zero transition (10%)

Shareholding requirements

Key features of Policy (adopted 2022)

Shareholding requirement

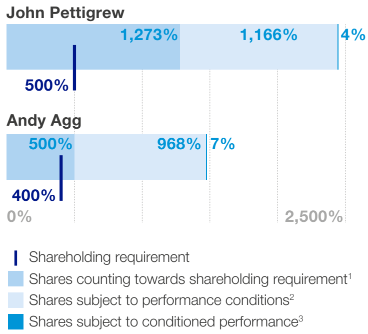
- 500% of salary for the Chief Executive; and
- 400% of salary for other Executive Directors

Post-employment shareholding requirement

- 200% of salary for two years

Implementation of Policy in 2022/23

John Pettigrew and Andy Agg have met their shareholding requirements



1. Represents beneficially owned shares as well as shares held in trust as part of the APP deferred share awards
2. Represents the 2020, 2021 and 2022 LTPP awards subject to performance conditions
3. Represents shares held as part of the Sharesave scheme

- Nicola Shaw has met her post-employment shareholding requirement as at 31 March 2023

How we propose to implement the Policy in 2023/24

- Shareholding requirements remain unchanged

Non-executive Director fees

Key features of Policy (adopted 2022)

Provides flexibility to reflect additional responsibilities where these are material to the roles

Fee structure:

- Chair fee (all inclusive);
- Basic fee;
- Committee Chair fee;
- Committee membership fee;
- Senior Independent Director fee; and
- Additional Board responsibilities fees

Implementation of Policy in 2022/23

Non-executive Directors' fees were reviewed last year, and as disclosed any increases were effective from 1 January 2022 and paid retrospectively on 1 July 2022

How we propose to implement the Policy in 2023/24

- Chair fee remains unchanged in line with her fee being fixed on appointment for three years
- All Non-executive Directors' fees will be increased by 4.0% – below the average increase of 8.7% across the UK wider workforce
- The Audit & Risk Chair fee will be increased by 9.7% given the increasing complexity within the role and to align fees at mid-market

Directors' Remuneration Report continued

Summary of Policy table and approach taken for 2022/23 with intended approach for 2023/24 continued

Alignment of remuneration with our business strategy

We align our performance linked elements of remuneration (APP and LTPP) to our strategic priorities, and our vision to be at the heart of a clean, fair and affordable energy future, and our sustainability commitment.

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

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

Our strategy

- Enable the energy transition for all
- Deliver for customers efficiently
- Grow our organisational capability
- Empower colleagues for great performance

Our 2022 Policy is aligned to our business strategy

Element of reward	Summary	Link to our strategy	Link to our values	Link to our sustainability commitments
APP				
Group Underlying EPS (pence per share) **(35% weighting)**	The most appropriate APP earnings measure for the Group; and the targets consider specific challenges and opportunities in the year ahead whilst remaining consistent with our longer-term performance goals.		Do the right thing **Find a better way** **Make it happen**	The environment Our communities Our people **The economy** **Our governance**
Group RoE **(35% weighting)**	A relevant and key measure of performance as a primarily regulated asset-based company with targets set to ensure strong in-year returns and operational results.		Do the right thing **Find a better way** **Make it happen**	The environment Our communities Our people **The economy** **Our governance**
Customer **(5% weighting)**	An equally weighted index of quantifiable and predominantly externally measured customer satisfaction scores across each of the Group's business units.		**Do the right thing** **Find a better way** **Make it happen**	The environment **Our communities** Our people The economy Our governance
Colleague **(5% weighting)**	A quantitative index from our annual Group-wide employee engagement survey of our colleagues.		**Do the right thing** **Find a better way** **Make it happen**	The environment Our communities **Our people** The economy Our governance
Diversity **(5% weighting)**	A quantifiable measure to improve the overall gender and ethnic diversity at specific layers to support the delivery of the Group's strategy.		**Do the right thing** Find a better way Make it happen	The environment Our communities **Our people** The economy Our governance
LTPP				
Cumulative 3 year Underlying Group EPS **(40% weighting)**	A measure that assesses underlying EPS over the three years in the LTPP performance period.		Do the right thing **Find a better way** **Make it happen**	**The environment** **Our communities** Our people The economy Our governance
Group RoE **(40% weighting)**	A measure that is averaged across the three-year performance period to incentivise sustainable returns for shareholders in the longer term.		Do the right thing **Find a better way** **Make it happen**	**The environment** **Our communities** Our people The economy **Our governance**
Reduction of Scope 1 emissions **(10% weighting)**	A cumulative measure aligned to meet the Group's 2030 SBTi and long-term net zero target of below 2°C.		**Do the right thing** **Find a better way** **Make it happen**	**The environment** **Our communities** Our people The economy **Our governance**
Enablement of net zero transition (Scope 2 and 3 emissions and strategic initiatives) **(10% weighting)**	A measure that assesses delivery against key net zero strategic priorities and quantified outcomes to achieve a net zero future by 2050.		**Do the right thing** **Find a better way** **Make it happen**	**The environment** **Our communities** Our people The economy **Our governance**

Statement of implementation of Policy in 2022/23

Content contained within a blue box indicates that all the information in the panel is audited

2022/23 remuneration implementation

Single total figure of remuneration – Executive Directors

The following table shows a single total figure of remuneration in respect of qualifying service for 2022/23, together with comparative figures for 2021/22. All figures shown to £'000:

	John Pettigrew		Andy Agg	
	2022/23	2021/22	**2022/23**	2021/22
Salary	**1,083**	1,047	**708**	665
Benefits in Kind (BiK)	**58**	101	**29**	22
Pension	**130**	245	**85**	133
Total fixed pay	**1,271**	1,393	**822**	820
APP	**1,118**	1,116	**731**	717
LTPP	**4,859**	4,105	**2,564**	2,033
Total variable pay	**5,977**	5,221	**3,295**	2,750
Total remuneration	**7,248**	6,614	**4,117**	3,570

Notes:

Salary: John Pettigrew's salary increased by 3.75% to £1,092,500 as of 1 July 2022, below the average increase of the wider workforce at 4.0%. Andy Agg was awarded an increase of 6.5% to £719,000 as part of a previously communicated progressive increase to align his salary with the market rate for his role.

BiK: BiK includes private medical insurance, life assurance, allowance under the Group's flexible benefits programme, travel and accommodation expenses, a fully expensed car or cash alternative and the use of a car and a driver when required. John Pettigrew received £12,000 for his company car allowance, £2,090 for life assurance, £891 for private medical insurance and travel tax and around £43,500 for the use of a car and driver for 2022/23 (2021/22: approximately £85,500). Andy Agg received £12,000 for his company car allowance, £5,847 for life assurance, £1,465 for private medical insurance and £10,079 for taxable accommodation and travel expenses for 2022/23. There were no Sharesave options granted to any Executive Directors during 2022/23.

Pension: Pension contributions for John Pettigrew and Andy Agg are 12% of salary for 2022/23.

LTPP: The 2020 LTPP is due to vest in July 2023. The average share price over the three months from 1 January 2023 to 31 March 2023 of 1,043.51 pence has been applied and estimated dividend equivalents are included. The 2019 LTPP figures (included in the 2021/22 column) have been restated to reflect the actual share price on vesting and all dividend equivalent shares. As the vesting share price of 1,124.24 pence was higher versus the estimate of 1,098.09 pence (and the additional dividend equivalent shares added for the dividend with a record date of 6 June 2022 with a dividend rate of 33.76 pence per share), the actual value at vesting was c.£107,000 higher than for the estimate published last year for John Pettigrew and £53,000 higher for Andy Agg.

Impact of TSR and share price change: The value of the 2020 LTPP award is driven in part by the share price increase of 17.4% from date of grant to date of vest and the strong TSR of 31.2% over the three-year performance period.

Total pension benefits

John Pettigrew and Andy Agg received a cash allowance in lieu of participation in a pension arrangement. There are no additional benefits on early retirement. The values of these benefits, received during this year, are shown in the single total figure of remuneration table.

John Pettigrew has, in addition, accrued defined benefit (DB) entitlements. He opted out of the DB scheme on 31 March 2016 with a deferred pension and lump sum payable at his normal retirement date of 26 October 2031. At 31 March 2023, John Pettigrew's accrued DB pension was £99,873 per annum and his accrued lump sum was £299,620. No additional DB entitlements have been earned over the financial year, other than an increase for price inflation due under the pension scheme rules and legislation. Under the terms of the pension scheme, if he satisfies the ill-health requirements or he is made redundant, a pension may be payable earlier than his normal retirement date. A lump sum death in service benefit is also provided in respect of these DB entitlements.

2022/23 APP

For 2022/23 APP, financial measures represent 70% of the award (an increase from 60% in 2021/22) and operational measures and individual objectives equally represent 15% of the award (a decrease from 20% in 2021/22). Payment of the APP award is made 50% in shares and 50% in cash. Shares (after any sales to pay associated tax) must be retained until the shareholding requirement is met, and in any event for a minimum of two years after receipt.

For financial measures, threshold, target and stretch performance levels are set by the Committee for the performance period and pay out at 0%, 50% and 100% of the maximum calculated on a straight-line basis. Operational measures have been assessed on a four-point scale (not met, partially achieved, achieved and over-achieved) based on quantitative targets set at the beginning of the year by the Committee. Target and stretch performance levels for the individual objectives are also predetermined by the Committee for the performance period, and an assessment of the performance relative to the target and stretch performance levels is made at the end of the performance year on each objective. Executive Directors have a maximum opportunity of 125% of base salary for 2022/23.

APP – Financial performance

The financial measures (70%) were weighted equally between two measures – Group Underlying EPS and Group RoE. The Group has continued to deliver strong financial performance despite record levels of cost inflation and other macroeconomic factors. The outcomes reflect good operational performance across our US regulated businesses; improved NGV performance across interconnectors; and also higher levels of investment to drive forward energy transition and deliver energy security across all business units.

Directors' Remuneration Report continued

Summary of Policy table and approach taken for 2022/23 with intended approach for 2023/24 continued

The financial performance outcomes of the 2022/23 APP awards are summarised in the tables below:

Measure	Weighting (% of APP)	Threshold	Target	Stretch	Outcome (% of max)
Group Underlying EPS A	35%	71.1	74.1	77.1	100.0%
			78.2		
Group RoE (%) A	35%	10.3%	10.7%	11.1%	87.5%
			11.0%		
Total financial outturn	70%				93.8%

A Denotes an 'alternative performance measure' as described on page 14

Notes:

Group Underlying EPS includes discontinued earnings contribution from UK Gas Transmission & Metering for the period of ownership.

Underlying EPS: Technical adjustments have been made which increase the performance range (including threshold, target and stretch) by 4.0 pence. This reflects the net effect of currency adjustments, scrip issuances, US pension assumptions, as well as the actual dates of the portfolio transactions, specifically the disposal of the UK Gas Transmission & Metering and Rhode Island.

Group RoE: Technical adjustments have been made which decrease the performance range by 0.3% to reflect the impact of the final opening equity being higher than forecast following inflation-related RAV increases and the impact of the date of disposal of the UK Gas Transmission & Metering.

APP – Operational performance

The operational measures (15%) were weighted equally between three key measures:

- Customer: Group customer satisfaction index;
- Colleague: Group Having a Voice index; and
- DEI: Percentage diversity of Strategic Leadership Group (top ~110 leaders)

Operational measures were assessed on a four-point scale (not met, partially achieved, achieved and over-achieved) based on quantifiable targets where possible and qualitative outcomes to reflect a balanced assessment of performance. Overall, there was strong progress made against each measure, resulting in a combined outcome of 66.7% of maximum.

However, as detailed in the Chair letter, following the fatal incident in May 2022 at Medford, Massachusetts, the Committee decided to exercise its discretion to reduce the operational portion of the APP by half, reducing the operational outturn from 66.7% to 33.3% for John Pettigrew and Andy Agg.

Measure	Details	Assessment	Outcome
Customer: Group customer satisfaction index (5%)	Blend of customer scores across the business units all equally weighted: • Customer Relationship Index for NE and NY; • Ofgem scores for UK ET and UK ED; and • Customer output measures for NGV	The customer sentiment, which is tied to the value customers feel they receive from National Grid, has softened in New York and New England as customer's concern about their ability to pay has increased. 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 a lack of contractual discipline and investment linked to individual customers. Both UK ED and NGV received positive customer and stakeholder satisfaction scores. Further detail on customer satisfaction can be found on page 16.	NY – 1 Not met NE – 2 Partially achieved UK ET – 1 Not met UK ED – 3 Achieved NGV – 3 Achieved
			(10/20) – 50.0%
Colleague: Group Having a Voice index (5%)	Index in annual employee engagement survey (Grid:Voice) which assesses the level of transparency and cultural openness across the organisation through four questions	Group Having a Voice index was 77% (ahead of target); Strong progress made on embedding the Group's purpose, values and culture as part of the integration of UK ED as well as continuing to evolve the culture and ways of working across the Group.	3 Achieved
			(3/4) – 75.0%
DEI: Percentage diversity of Strategic Leadership Group (top ~110 leaders) (5%)	Measure focused on delivering improvements in diversity in line with the key strategic priority to build a strong, diverse and inclusive strategic leadership team and pipeline of talent to support the delivery of the Group's strategy	Strategic Leadership Group diversity was at 49.1% (ahead of target); Progress underpinned by robust delivery of a Group-wide DEI strategy	3 Achieved
			(3/4) – 75.0%
Combined operational outcome			66.7%
Post discretion – Combined operational outcome			33.3%

Notes: Diversity is defined as colleagues who have self-identified themselves of varying gender, sexual orientation, disability, under-represented racial and/or ethnic group.

APP – Individual objectives

In addition to the financial and operational goals previously discussed, the Board approves annual individual performance goals for the Executive Directors in line with key operational and strategic priorities. Performance is assessed at the end of the financial year by the Board and Committee. The Chief Executive completed a self-evaluation which was shared with members of the Board for their comments. The Chair compiled these comments, and based on these comments, proposed a scoring for each of the goals. The Chief Executive undertook the same process for the Chief Financial Officer and presented his recommendations to the Committee in April 2023. The table below sets out the 2022/23 individual objectives together with associated performance commentaries and the Committee's assessment of the performance outcome for each of the Executive Directors:

Individual objectives and performance summary – John Pettigrew	Outcome
Deliver on the enterprise wide transformation • The enterprise transformation showed good results, with work remaining in advancing the capabilities that will be required as part of the energy transition	80.0%
Execute next wave of corporate strategy in line with Board strategic blueprint • The strategy of pivoting to electricity networks was advanced by completing various major transactions • Successfully led robust board strategy discussions which have led to greater clarity on the role National Grid plays in the energy transition	
Improve and deepen leadership capabilities and succession; create strong and diverse talent pipeline to enable energy transition • Leadership capabilities have been strengthened through a comprehensive approach to assessing and advancing talent. Given the dynamic nature of the environment in which the Group operates, this is an area that will need continued focus	

Individual objectives and performance summary – Andy Agg	Outcome
Successfully complete the strategic repositioning & ED2 outcome, ensuring strong investor support • UK ED integration well-progressed and delivered successful RIIO-ED2 price control outcome • Completed strategic pivot with completion of sale of Rhode Island and majority sale of UK Gas Transmission & Metering • Delivered successful funding strategy against challenging macro-economic backdrop	80.0%
Deliver transformation programmes across the Group and Finance function • Successfully implemented efficiencies and process improvements, supporting delivery against external cost commitments • Delivered Finance transformation milestones including new Data and Reporting Office and various system improvements	
Demonstrate progress in and deepen leadership capabilities and succession planning • Launched National Grid's CFO apprentice programme and enhanced career pathway planning and leadership skills training • Increased the Finance talent pipeline through several key senior appointments	

2020 LTPP

Performance conditions

The 2020 LTPP that will vest on 1 July 2023 was structured in consideration of the transition to RIIO-T2 in the UK during the performance period. The financial measures and weightings of the 2020 LTPP below are the same for all Executive Directors.

- Group RoE over a one-year period (2020/21) determines one sixth of the award
- Group Value Growth over the three-year period (2020/21 – 2022/23) determines five sixths of the award

As detailed in the Chair letter, the outturns of the 2020 LTPP reflect the good business performance over the performance period and are summarised below:

Performance measure	Weighting	Threshold 20% vesting	Actual outturn	Maximum 100% vesting	Actual % of maximum
Group RoE (A)	16.67%	8.25%	10.4%	9.75%	100.0%
Group Value Growth (A)	83.33%	8.00%	11.5%	10.5%	100.0%
Overall vesting outcome					100.0%

(A) Denotes an 'alternative performance measure' as described on page 14

Vesting

The amounts due to vest under the 2020 LTPP for the performance period that ended on 31 March 2023 are included in the 2022/23 single total figure table on page 95 and are shown in the table below. The current share price valuation is an estimate based on the average share price over the three months from 1 January 2023 to 31 March 2023 of 1,043.51 pence and the proposed 2022/23 dividend with record date of 2 June 2023, subject to shareholder approval, is included. The total value of awards vesting, and dividend equivalent shares are subject to a two-year holding period.

The Committee considered wider business factors, such as underlying financial performance, ESG considerations and shareholder experience, when determining the final outturn for the 2020 LTPP and were comfortable that no adjustments were required.

	Shares awarded	Performance outcome (% of maximum)	Vested shares based on performance	Face value of the award at grant (£'000)	Share price appreciation (£'000)	Dividend equivalent shares (£'000)	Total value (£'000)
John Pettigrew	405,217	100.00	405,217	3,603	625	630	4,859
Andy Agg	213,795	100.00	213,795	1,901	330	333	2,564

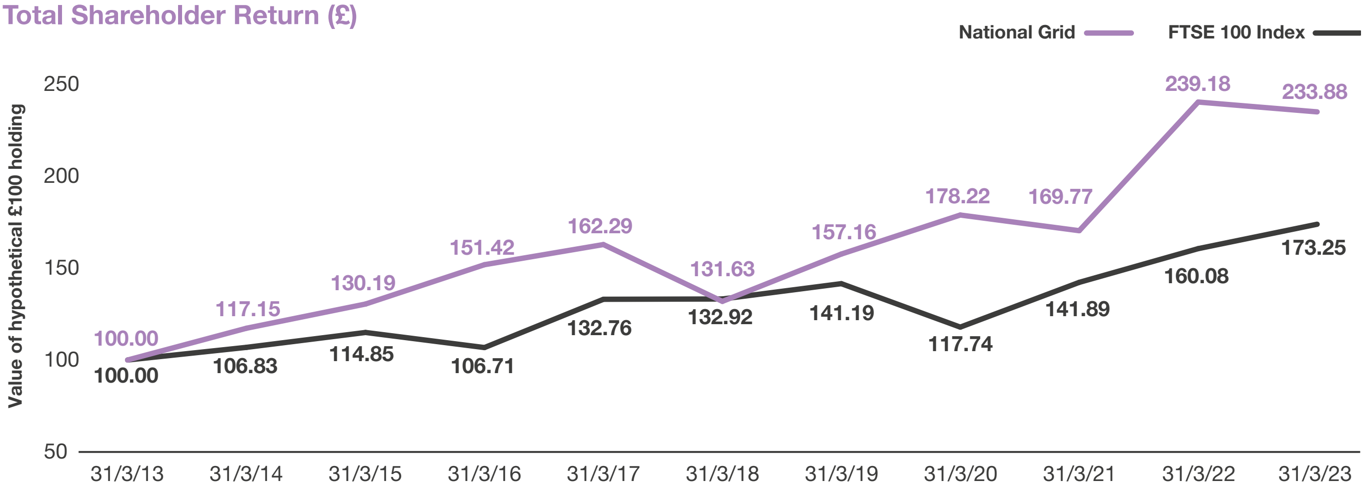
Directors' Remuneration Report continued

Summary of Policy table and approach taken for 2022/23 with intended approach for 2023/24 continued

Assessment of National Grid shareholder returns

National Grid plc's 10-year annual TSR performance against the FTSE 100 Index since 31 March 2013 is shown below and illustrates the growth in value of a notional £100 holding invested in National Grid plc on 31 March 2013, compared with the same invested in the FTSE 100 Index. The FTSE 100 Index has been chosen because it is a widely-recognised performance benchmark for large companies in the UK and it is a useful reference to assess relative value creation for National Grid plc shareholders. Over the last 10-year period, National Grid plc's TSR is 134% versus the FTSE 100 Index at 73%, demonstrating sustainable long-term value for our shareholders.

Total Shareholder Return (£)



Data source: Datastream by Refinitiv

2022 LTPP

Performance conditions

For the 2022 LTPP, the performance measures comprise of equally weighted financial measures totalling 80% and two equally weighted net zero transition measures with a combined weighting of 20% over the three-year performance period, as outlined in the table below. As disclosed in last year's Directors' Remuneration Report, Group Value Growth was replaced with a three-year cumulative Underlying EPS and net zero transition measures were introduced to align to targets set out in our CTP.

Performance measures	Weighting	Threshold 20% vesting	Maximum 100% vesting
Cumulative three-year Underlying EPS A	40%	199 p	217 p
Group RoE A	40%	9.50%	10.75%
National Grid Scope 1 emissions	10%	-50 $ktCO_2e$	-117 $ktCO_2e$
Enablement of net zero transition: Strategic initiatives (Scope 2 and 3)	10%	There are four key areas of focus (US energy-efficiency programmes, UK net zero transmission strategy, US future of gas strategy and low-carbon electricity distribution investment) which will be measured on a four-point scale (not met, partially achieved, achieved and over-achieved) based on delivery of quantifiable and qualitative outcomes.	

Notes: Vesting between threshold and maximum will be on a straight-line basis.

A Denotes an 'alternative performance measure' as described on page 14

Conditional awards made during the year

The face value of the awards are calculated using the volume weighted average share price at the date of grant. The share price at the date of grant on 28 June 2022 was 1,069.26 pence. The 2022 LTPP will vest on 1 July 2025. The total value of awards vesting and dividend equivalent shares are subject to a two-year holding period following vesting.

	Basis of award (% of base)	Number of shares	Face value (£'000)	Proportion vesting at threshold performance	Performance period end date
John Pettigrew	350%	357,606	£3,824	20%	31 March 2025
Andy Agg	300%	201,727	£2,157	20%	31 March 2025

Statement of Directors' shareholdings and share interests

The Executive Directors are required to build up and hold a shareholding from vested share plan awards until their shareholding requirement is met. Until this point, Executive Directors will not be permitted to sell shares, other than to pay income tax liabilities on shares just vested or in exceptional circumstances approved by the Committee. The following table shows the position of each of the Executive Directors in relation to the shareholding requirement. The shareholding is as at 31 March 2023 and the salary used to calculate the value of the shareholding is the gross salary as at 31 March 2023. The table also presents the number of shares owned by the Non-executive Directors, including their connected persons.

Both John Pettigrew and Andy Agg have met their shareholding requirement.

Further shares have been purchased in April and May 2023 on behalf of each of John Pettigrew and Andy Agg as part of the Share Incentive Plan (SIP) (an HMRC tax-advantaged all-employee share plan), thereby increasing the beneficial interests by 26 shares (13 in April and May) for John Pettigrew and 26 shares (13 in April and May) for Andy Agg. There have been no other changes in Directors' shareholdings between 1 April 2023 and 18 May 2023.

The expected vesting dates for the conditional share awards subject to performance conditions are 3 July 2023, 1 July 2024 and 1 July 2025 for the 2020 LTPP, 2021 LTPP and 2022 LTPP respectively.

Directors	Share ownership requirements (multiple of salary)	Number of shares/ADSs owned outright (including closely associated persons and SIP for Executive Directors)	Value of shares held as a multiple of current salary (excluding closely associated persons)	Number of options granted under the Sharesave Plan	Conditional share awards subject to performance conditions (LTPP 2020, 2021, and 2022)
Executive Directors					
John Pettigrew	500%	1,268,112	1,273%	4,219	1,161,391
Andy Agg	400%	327,917	500%	4,316	634,515
Non-executive Directors					
Paula Rosput Reynolds (ADSs)	–	2,000	–	–	–
Thérèse Esperdy (ADSs)	–	1,587	–	–	–
Liz Hewitt	–	2,500	–	–	–
Ian Livingston	–	1,838	–	–	–
Earl Shipp (ADSs)	–	1,000	–	–	–
Jonathan Silver (ADSs)	–	0	–	–	–
Tony Wood	–	2,097	–	–	–
Martha Wyrsch (ADSs)	–	5,000	–	–	–
Anne Robinson (ADSs)	–	0	–	–	–
Iain Mackay	–	0	–	–	–
Former Non-executive Directors					
Jonathan Dawson	–	45,632	–	–	–
Amanda Mesler	–	1,500	–	–	–

Notes:

John Pettigrew: On 31 March 2023 John Pettigrew held 4,219 options granted under the Sharesave Plan with an exercise price of 711 pence per share (the 20% discounted option price) and they can, subject to their terms, be exercised at 711 pence per share between 1 April 2025 and 30 September 2025. The number of conditional share awards subject to performance conditions is as follows: 2020 LTPP: 405,217; 2021 LTPP: 398,568; 2022 LTPP: 357,606.

Andy Agg: On 31 March 2023 Andy Agg held 4,316 options granted under the Sharesave Plan with an exercise price of 695 pence per share (the 20% discounted option price) and they can, subject to their terms, be exercised at 695 pence per share between 1 April 2026 and 30 September 2026. The number of conditional share awards subject to performance conditions is as follows: 2020 LTPP: 213,795; 2021 LTPP: 218,993; 2022 LTPP: 201,727.

Paula Rosput Reynolds, Thérèse Esperdy, Earl Shipp, Jonathan Silver, Martha Wyrsch and Anne Robinson: Holdings are shown as American Depositary Shares (ADSs) and each ADS represents five ordinary shares.

Jonathan Dawson and Amanda Mesler: Both Non-executive Directors resigned from the Board effective 11 July 2022, therefore their shareholding is as at 31 March 2022.

Post employment shareholding requirements

Past Executive Directors are required to continue to hold their shares/ADSs post employment for a period of two years in line with our current Policy.

To enforce this, the Executive Directors have given permission for the Group to periodically check with its third-party share scheme administrator whether the minimum shareholding requirement is being maintained. The Executive Directors have acknowledged that if they breach their post-employment shareholding requirement for any reason, the Group may enforce at its discretion one or more of the following processes: to request they repay to the Group an amount equivalent in value to the shareholding requirement that has not been met; the Group may withdraw/vary the vesting of any future shares granted under the LTPP; the Company may publish a public statement in a form, as the Group may decide that the Director has failed to comply with the post-employment shareholding requirement. Executive Directors are reminded annually and when employed, of the post-employment shareholding requirement. At termination, the minimum shareholding requirement is confirmed to the Director and checks are made by the Group at the 12-month and 24-month anniversary of leaving and at the relevant financial year end, 31 March, to ascertain if their post-employment shareholding requirement has been met.

Nicola Shaw stood down from the Board on 26 July 2021 and her termination date was 30 April 2022, at which time she was subject to a post-employment shareholding requirement of 200% of salary at termination for a period of two years. As of 31 March 2023, Nicola Shaw continues to meet her post-employment shareholding requirement.

Shareholder dilution

All Company employees are encouraged to become shareholders through a number of all-employee share plans and a significant proportion of our employees participate annually. These plans include Sharesave and the SIP in the UK and the US Employee Stock Purchase Plan (ESPP) and US Incentive Thrift Plan (commonly referred to as a 401(k) plan) in the US which are summarised on page 235 and in our Policy. UK ED employees can now participate in the UK all-employee share plans since their acquisition.

Where shares may be issued or treasury shares reissued to satisfy incentives, the aggregate dilution resulting from executive or discretionary share-based incentives will not exceed 5% in any 10-year period. Dilution resulting from all incentives, including all-employee incentives, will not exceed 10% in any 10-year period. The Committee reviews dilution levels against these limits annually and under these limits the Company, as at 31 March 2023, had a headroom of 3.87% and 7.75% respectively.

Chief Executive pay ratio

We have disclosed our Chief Executive pay ratios comparing the single total figure of remuneration of the Chief Executive to the equivalent pay for the 25th percentile, median and 75th percentile UK employees (calculated on a full-time equivalent basis), as well as the median Group-wide pay ratio.

		UK			Group-wide
Year	Method	25th percentile pay ratio	Median pay ratio	75th percentile pay ratio	Median pay ratio
2022/23	Option A	144	111	86	76
2021/22	Option A	135	105	81	76
2020/21	Option A	104	81	62	54
2019/20	Option A	111	86	66	53
2018/19 – voluntary	Option A	96	76	58	48

Notes: Salaries as at 31 March 2023 and estimated performance-based annual payments for 2022/23 have been annualised for part-time employees to reflect full-time equivalents. Performance payments have not been further adjusted to compensate where new employees have not completed a full performance year. The comparison with UK employees is specified by the Companies (Miscellaneous Reporting) Regulations 2018 (as amended). US employees represent approximately 57% of our total employees. Our median pay ratio on a Group-wide basis is outlined above and calculated on the same basis as the UK pay ratios and at an exchange rate of $1.2156:£1.

Directors' Remuneration Report continued

Summary of Policy table and approach taken for 2022/23 with intended approach for 2023/24 continued

The Chief Executive pay ratio has increased from 105:1 to 111:1 at the UK median, primarily due to the impact of the 2020 LTPP award on the Chief Executive's single total figure of remuneration. This year the 2020 LTPP vesting represents 67% (2021/22: 61%) of the Chief Executive's single total figure of remuneration. Whilst the UK median pay ratio increased this year, our Group median pay ratio has remained consistent compared with 2021/22 due to higher level of wages in the regions of the US where we operate as compared with the UK.

Excluding estimated 2020 LTPP vesting, our UK median pay ratio has decreased from 40:1 in 2021/22 to 37:1 this year and our Group pay ratio decreased from 29:1 to 25:1.

Changes in the Chief Executive pay ratio reflect the fact that a key feature of our executive and senior leadership remuneration strategy is heavily weighted towards longer-term performance share-based reward, resulting in larger swings year-on-year than the wider workforce. Across the wider workforce, employee reward is largely focused on in-year annual delivery.

The 2022/23 salary and total pay including benefits for the Chief Executive versus UK employees is shown below.

2022/23 Salary and benefits – Chief Executive versus UK wider workforce

	Chief Executive Remuneration	UK employee 25th percentile	UK employee 50th percentile	UK employee 75th percentile
Salary	£1,082,625	£39,299	£44,367	£58,240
Total pay and benefits	£7,247,980	£50,493	£65,112	£84,466

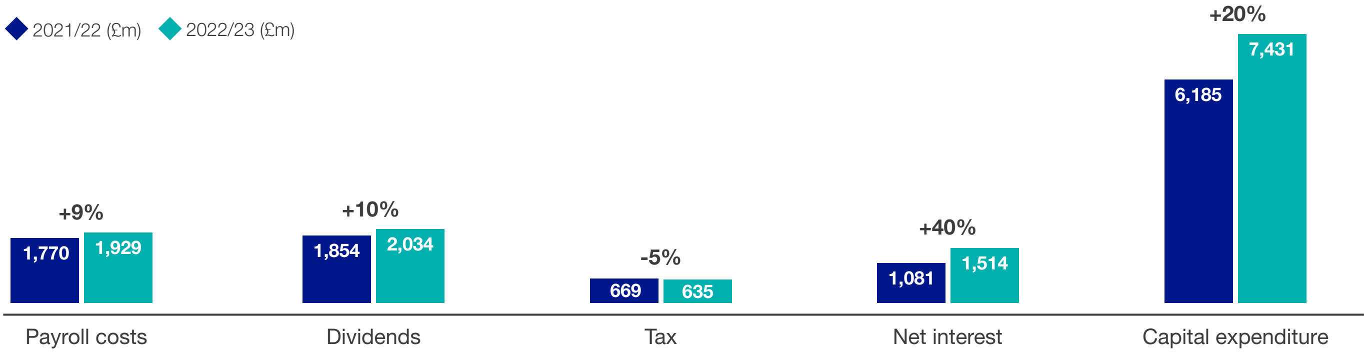
We have chosen to use Option A in calculating the ratios, which is a calculation based on the pay of all UK employees on a full-time equivalent basis, as this option is considered to be more statistically robust. The ratios are based on total pay and benefits inclusive of short-term and long-term incentives applicable for the respective financial year (1 April – 31 March). The reference employees at the 25th, 50th and 75th percentile have been determined by reference to pay and taxable benefits as at the last day of the respective financial year, 31 March, with estimates for the respective APP payouts and performance outcomes of the LTPP and dividend equivalents.

We are satisfied that the median pay ratio reported this year is consistent with our wider pay, reward and progression policies for employees. The median reference employee falls within our collectively bargained employee population and has the opportunity for annual pay increases, annual performance payments and career progression and development opportunities. The Chief Executive received a pay increase of 3.75% in 2022/23, below the UK wider workforce increase of 4.0%. For reference, in 2023/24, the Chief Executive will receive a 4.0% pay increase, which is below the UK average increase of 8.7% (with the tiers ranging from 4.5% to 9.5%) across the UK wider workforce.

Relative importance of spend on pay

The chart below shows the relative importance of spend on pay compared with other costs and disbursements (dividends, tax, net interest and capital expenditure). Given the capital-intensive nature of our business and the scale of our operations, these costs were chosen as the most relevant measures for comparison purposes. All amounts exclude exceptional items and remeasurement.

Relative importance of spend on pay



Notes:

1. The dividend figure for 2021/22 has been restated at £1,854 million (from £1,852 million) to reflect the actual value of dividends paid.
2. Percentage increase/decrease of the costs between years is shown.

Chief Executive's pay in the last 10 financial years

Steve Holliday was Chief Executive throughout the three-year period from 2013/14 to 2015/16. John Pettigrew became Chief Executive on 1 April 2016.

	Steve Holliday			John Pettigrew						
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Single total figure of remuneration (£'000)	4,801	4,845	5,151	4,623	3,648	4,651	5,205	5,071	6,614	7,248
Single total figure of remuneration including only 2014 LTPP (£'000)				3,931						
APP (proportion of maximum awarded)	77.94%	94.80%	94.60%	73.86%	82.90%	84.20%	70.58%	80.43%	85.20%	82.62%
LTPP (proportion of maximum vesting)	76.20%	55.81%	63.45%	90.41%	85.20%	84.20%	84.90%	68.00%	74.22%	100.00%

Notes:

John Pettigrew: The single total figure of remuneration for 2022/23 is explained in the single total figure of remuneration table for Executive Directors and single total figure for 2021/22 has been restated to reflect actual share price for 2019 LTPP vesting in 2022 and all dividend equivalent shares, consistent with comparative figures shown in this year's single total figure of remuneration table.

2014 LTPP: The 2016/17 single total figure of remuneration includes both the 2013 LTPP award and the 2014 LTPP award due to a change in the vesting period from four years (2013 LTPP) to three years (2014 LTPP).

LTPP plans: Prior to 2014, LTPP awards were made under a different long-term incentive framework which incorporated a four-year performance period for the RoE element of the awards. The last award under this framework was made in 2013 and was fully vested in 2017. Awards made from 2014 are subject to a three-year performance period. The first of these awards vested in 2017.

Single total figure of remuneration – Non-executive Directors

The following table shows a single total figure in respect of qualifying service for 2022/23, together with comparative figures for 2021/22:

		Fees (£'000)		Other emoluments (£'000)		Total (£'000)	
		2022/23	**2021/22**	**2022/23**	**2021/22**	**2022/23**	**2021/22**
Paula Rosput Reynolds		**700**	599	**56**	18	**756**	616
Thérèse Esperdy		**180**	141	**18**	10	**199**	151
Liz Hewitt		**128**	113	**10**	9	**138**	122
Ian Livingston	Appointed on 1.08.2021	**142**	66	**1**	1	**142**	67
Earl Shipp		**123**	113	**22**	7	**145**	120
Jonathan Silver		**124**	99	**45**	9	**169**	109
Tony Wood	Appointed on 1.09.2021	**117**	48	**18**	2	**135**	50
Martha Wyrsch	Appointed on 1.09.2021	**117**	56	**12**	3	**129**	59
Anne Robinson	Appointed on 19.01.2022	**110**	19	**14**	0	**125**	19
Iain Mackay	Appointed on 11.07.2022	**89**	n/a	**0**	n/a	**89**	n/a
Former Non-executive Directors							
Jonathan Dawson	Resigned on 11.07.2022	44	108	3	3	47	111
Amanda Mesler	Resigned on 11.07.2022	50	93	3	2	53	94
Total		**1,924**	1,455	**202**	63	**2,125**	1,518

Notes: Non-executive Director fee increases approved in 2021/22 were effective from 1 January 2022 and paid retrospectively on 1 July 2022.

Other emoluments: In accordance with the Group's expenses policies, Non-executive Directors receive reimbursement for their reasonable expenses for attending Board meetings. In instances where these costs are treated by HMRC as taxable benefits, the Group also meets the associated tax cost to the Non-executive Directors through a PAYE settlement agreement with HMRC and these costs are included in the table above. The 2022/23 year-on-year increase on Non-executive Directors benefits was due to global travel returning to pre-pandemic levels; therefore Directors travelled several times during the year incurring travel/accommodation expenses.

Anne Robinson: Joined the Remuneration Committee as a member effective 11 July 2022.

Liz Hewitt: Stepped down as Chair of the Audit & Risk Committee but remains as a member of the Audit & Risk Committee effective 1 January 2023.

Ian Livingston: Joined the Finance Committee as a member effective 1 January 2023.

Iain Mackay: Appointed Chair of the Audit & Risk Committee effective 1 January 2023.

The total emoluments paid to Executive and Non-Executive Directors in the year was £13.5 million (2021/22: £11.7 million).

Percentage change in Remuneration (Executive Directors, Non-executive Directors, employee average)

We have included percentage change in salary/fee, bonus and benefits for each of the Directors compared with prior years. The regulations cover employees of the Parent Company only and not across the Group, and since we have very few people employed by our Parent Company (National Grid plc), we have voluntarily chosen a comparator group of all employees in the UK and the US to provide a representative comparison. In line with the regulations, we shall build this information to display a five-year history by 2024/25.

	2020/21			2021/22			2022/23		
Executive Directors	**Salary**	**Benefits**	**Bonus**	**Salary**	**Benefits**	**Bonus**	**Salary**	**Benefits**	**Bonus**
John Pettigrew	1.3%	-4.7%	15.4%	1.7%	-8.8%	7.8%	**3.4%**	**-42.0%**	**0.3%**
Andy Agg	4.9%	40.6%	17.7%	6.5%	-31.6%	15.9%	**6.5%**	**32.6%**	**2.1%**
Non-executive Directors									
Paula Rosput Reynolds	n/a	n/a	n/a	2816.8%	n/a	n/a	**16.9%**	**217.1%**	**n/a**
Thérèse Esperdy	0.4%	-100.0%	n/a	-0.8%	n/a	n/a	**28.2%**	**84.8%**	**n/a**
Liz Hewitt	334.8%	-100.0%	n/a	14.5%	n/a	n/a	**12.8%**	**12.0%**	**n/a**
Ian Livingston[1]	n/a	n/a	n/a	n/a	n/a	n/a	**113.2%**	**3.0%**	**n/a**
Earl Shipp	0.5%	-100.0%	n/a	8.6%	n/a	n/a	**9.0%**	**208.6%**	**n/a**
Jonathan Silver	14.3%	-100.0%	n/a	-4.2%	n/a	n/a	**24.5%**	**383.6%**	**n/a**
Tony Wood[2]	n/a	n/a	n/a	n/a	n/a	n/a	**144.2%**	**857.5%**	**n/a**
Martha Wyrsch[2]	n/a	n/a	n/a	n/a	n/a	n/a	**111.0%**	**280.3%**	**n/a**
Anne Robinson[3]	n/a	n/a	n/a	n/a	n/a	n/a	**474.0%**	**n/a**	**n/a**
Iain Mackay[4]	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**	**n/a**
Former Non-executive Directors									
Jonathan Dawson[5]	**0.5%**	**37.1%**	**n/a**	**-3.0%**	**417.6%**	**n/a**	-59.6%	1.2%	n/a
Amanda Mesler[5]	**0.5%**	**-100.0%**	**n/a**	**1.6%**	**n/a**	**n/a**	-46.1%	85.7%	n/a
Employee median	-8.5%	1.7%	-5.5%	2.8%	6.1%	40.0%	**12.4%**	**36.4%**	**-23.0%**

Notes:

1. Ian Livingston was appointed to the Board on 1 August 2021, therefore 2021/22 fees and benefits were prorated.
2. Tony Wood and Martha Wyrsch were appointed to the Board on 1 September 2021, therefore 2021/22 fees and benefits were prorated.
3. Anne Robinson was appointed to the Board on 19 January 2022, therefore 2021/22 fees and benefits were prorated.
4. Iain Mackay was appointed to the Board on 11 July 2022, therefore percentage change is not applicable for 2022/23.
5. Jonathan Dawson and Amanda Mesler resigned from the Board effective 1 July 2022, therefore received prorated fees for the financial year.
6. **Benefits/other emoluments:** For Executive Directors, benefits include private medical insurance, life assurance, allowance under the Group's flexible benefits programme, travel and accommodation expenses, a fully expensed car or cash alternative and the use of a car and a driver when required. For Non-executive Directors, the equivalent of benefits is emoluments. In accordance with the Group's expenses policies, Non-executive Directors receive reimbursement for their reasonable expenses for attending Board meetings. In instances where these costs are treated by HMRC as taxable benefits, the Group also meets the associated tax cost to the Non-executive Directors through a PAYE settlement agreement with HMRC and these costs are included in the table above. The 2022/23 year-on-year increase on Non-executive Directors benefits was due to global travel returning to pre-pandemic levels; therefore Directors travelled several times during the year incurring travel/accommodation expenses.

Directors' Remuneration Report continued

Summary of Policy table and approach taken for 2022/23 with intended approach for 2023/24 continued

For 2022/23, the percentage change data for salary reflects that salary increases for Executive Directors were below the employee median of 12.4%. The 2022/23 year-on-year increase in Non-executive Director fees is due to pro-rated fees for Non-executive Directors joining during the year and also partly due to increased fees effective 1 January 2022. Further, Non-executive Directors receive reimbursement for their reasonable expenses for attending Board meetings. In instances where these costs are treated by HMRC as taxable benefits, the Group also meets the associated tax cost to the Non-executive Directors through a PAYE settlement agreement with HMRC and these costs are included in the table above. The 2022/23 year-on-year increase on Non-executive Director emoluments was due to global travel returning to pre-pandemic levels and also due to part-year travel costs versus full-year travel costs. For 2022/23, the percentage change in benefits and bonus for the employee median is on account of the changes in the underlying UK workforce with UK Gas Transmission & Metering colleagues leaving and UK ED colleagues joining the Group.

Salary increases vary for employees covered by collective agreements depending on arrangements agreed with the respective trade unions. The Committee takes account of the general salary increases available for managers/non-unionised employees when reviewing Directors' salaries/fees.

Further alignment between Executive Director pay and arrangements available to the wider workforce is evidenced by the approach that most employees have the opportunity to receive a bonus which is linked to either a combination of individual and/or Group/business performance measures, thus enabling employees as well as the Executive Directors to benefit in the Group's success annually.

Service contracts/letters of appointment

In line with our Policy, all Executive Directors have service contracts which are terminable by either party with 12 months' notice commencing immediately after announcement. Non-executive Directors are subject to letters of appointment. The Board Chair's appointment is subject to six months' notice by either party; for other Non-executive Directors, notice is one month. All Directors are required to be elected at each AGM.

There has been no changes made to Directors' service contracts and letters of appointment. Copies of service contracts and letters of appointment are available for inspection at the Company's registered office.

Payments for loss of office and payments to past Directors

On 20 May 2021, we announced Nicola Shaw, Executive Director UK, would not be seeking re-election to the Board. Nicola Shaw stood down from the Board on 26 July 2021 and remained in active employment until 31 October 2021. She received salary and benefits until her termination date of 30 April 2022 and received pay in lieu of notice for the unexpired period of her 12-month notice period (i.e. from 1 May 2022 to 19 May 2022).

For the period from 1 April 2022 to 31 March 2023, Nicola Shaw received remuneration totalling £135,588 which includes her salary and benefits of £58,450 (for 1 April 2022 to 30 April 2022), her pay in lieu of notice of £29,905 (for 1 May 2022 to 19 May 2022) and other payments (including but not limited to statutory pay, holiday pay and a SIP refund) of £47,233. All payments are in accordance with her service agreement, the 2019 Policy and in line with our June 2021 RNS announcement and subject to applicable tax withholdings.

The Committee agreed to grant good leaver treatment for Nicola Shaw's in-flight LTPP awards given her overall long-term strong performance and contribution to the business. The 2019 LTPP figure published last year in our Directors' Remuneration Report 2021/22 (page 114) of £1,765,000 is restated to £1,812,000 to reflect the actual share price on vesting and all dividend equivalent shares. As the vesting share price of 1,124.24 pence was higher versus the estimate of 1,098.09 pence (and the additional dividend equivalent shares added for the dividend with a record date of 6 June 2022 with a dividend rate of 33.76 pence per share), the actual value at vesting was c.£47,000 more than for the estimate published last year.

Nicola Shaw's 2020 LTPP award is due to vest in July 2023 and her award will be pro-rated for completed months held since the award date until 30 April 2022. The awards will vest at the same time as other participants, subject to performance measured at the vesting date and any discretion the Committee may decide to exercise at the time of vesting, in line with our Policy. These shares will be subject to the two-year post-vesting holding requirement and post-employment shareholding requirement. Using the same methodology for LTPP on page 95, Nicola Shaw's estimated value for the 2020 LTPP is £1,336,277.

There have been no other payments made to other past Directors during 2022/23.

External appointments and retention of fees

The table below details the Executive Director who served as Non-executive Director in other companies during the year ended 31 March 2023 (further detail on external appointments can be found in our Policy):

	Company	Retained fees
John Pettigrew	Rentokil Initial plc	£80,481

Role of the Remuneration Committee

The Committee is responsible for recommending to the Board the Policy for the Executive Directors. The Committee is also responsible for approving the remuneration of the other members of the Group Executive Committee and the Chair. The aim is to align the Policy to the Group strategy and key business objectives, and ensure it reflects our shareholders', customers' and regulators' interests. The Committee receives input on Policy implementation within the wider workforce before reaching decisions on matters such as salary increases and annual incentive payouts and closely reviews the appropriateness of pay positioning by reference to external measures (benchmarking remuneration packages) and internal review of Group performance and pay gaps (CEO pay ratios, gender and ethnicity pay gaps) and the relativity year-on-year of salary, benefits and annual performance incentives compared with the same for the rest of the workforce.

- **Clarity:** We identify and communicate a range of performance measures in our incentives which clearly link to the successful execution of the Company's strategy.
- **Simplicity:** Elements of our remuneration framework and their purpose are clearly articulated within our market-standard policy and we believe this is understood by all our stakeholders.
- **Risk:** Risk is managed in a number of ways and evidenced through our Policy, for example: setting maximum levels for incentive plans; implementing measures that are aligned to Group performance and shareholder interests; focusing on the long term and creating value through the LTPP; reviewing formulaic outcomes; malus and clawback provisions; and having a high shareholding requirement for senior executives.
- **Predictability:** Full information on the potential values which could be earned are disclosed; our policy outlines threshold, target and maximum opportunity with varying actual incentive outcomes dependent on performance; and all the checks and balances set out above under Risk are disclosed as part of the Policy.

- **Proportionality:** Whilst incentive plans reward executives' performance in successfully delivering the business strategy, there is also a focus on sustaining this through holding periods that apply to vested shares and annual incentives paid out as shares; all executives are also subject to significant shareholding and post-employment shareholding requirements. The Policy does not reward poor performance and the range of potential payouts under the Policy is appropriate.
- **Alignment to culture and strategy:** Our culture recognises that how we do things is as vital as what we do and this is reflected in the type of performance conditions used in our incentive plans. Both the measures themselves and the targets set aim to reinforce this approach.

Our Policy has operated as intended in terms of Group performance and quantum; a review of key considerations and decisions pertaining to its implementation is provided in the Committee Chair's statement.

The Committee's activities in 2022/23

Meeting/circulations	Main areas of discussion
April 2022	Discussion on the 2022/23 APP individual objectives for the Group Executive Committee Review of the 2022 LTPP measures and provisional targets for the Group Executive Committee Discussion on a number of governance updates including share dilution limits and shareholding for the Group Executive Committee
May 2022	Approval of 2021/22 APP and 2019 LTPP outcomes for the Group Executive Committee Approval of pay decisions for the Group Executive Committee Review of Chair fees Approval of the 2022/23 APP financial, operational and individual objectives and 2022 LTPP targets for the Group Executive Committee
September 2022*	Proposal for the 2022/23 APP strategic objective for a new Group Executive Committee appointment
October 2022*	Items related to new Group Executive Committee appointment
November 2022	AGM update Discussion of the 2023/24 APP and 2023 LTPP provisional measures the Group Executive Committee Approval of the UK Gas Transmission & Metering remuneration arrangements methodology at sale completion Proposal for the 2022/23 APP strategic objective for a new Group Executive Committee appointment Approval of the 2022/23 Sharesave Plan
January 2023	Discussion on external environment and current governance concerns in relation to executive pay Review and approval of the Gender and Ethnicity Pay Gap Items related to various Group Executive Committee members' (i) leaving arrangements and (ii) remuneration arrangements Discussion on the 2023/24 APP financial and operational measures Discussion on the 2023 LTPP financial and ESG measures
March 2023	External market update and evolving governance Discussion on the 2022/23 expected incentive plan outcomes (APP and outstanding LTPP) for the Group Executive Committee Discussion on the 2023/24 APP financial and operational measures and 2023 LTPP award for the Group Executive Committee Market data review, base salary increase proposals, in context of wider workforce increases, for the Group Executive Committee Approval of the 2022/23 UK Gas Transmission & Metering APP outturns post sale completion

*By circulation

Note: For completeness, the market data review and base salary increase proposals, in context of wider workforce increases (for 2022/23) for the Group Executive Committee and discussion on feedback from shareholder consultation on 2022 Policy were held in the March 2022 meeting.

Advisors to the Remuneration Committee

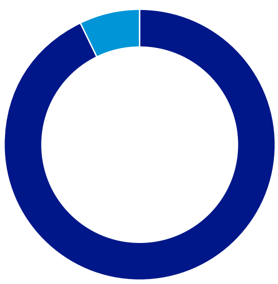
PricewaterhouseCoopers LLP (PwC) was selected by the Committee to become its independent advisor from 3 August 2020 and provided advice and counsel to the Committee throughout 2022/23. PwC is a member of the Remuneration Consultants Group (RCG) and has signed up to RCG's code of conduct. The Committee is satisfied that any potential conflicts were appropriately managed. Work undertaken by PwC in its role as independent advisor to the Committee has incurred fees of £62,541 on the basis of time charged to perform services and deliverables.

The Committee reviews the objectivity and independence of the advice it receives from its advisors each year. It is satisfied that PwC provided credible and professional advice. PwC has provided general and technical remuneration services in relation to employees below Board and Group Executive Committee level that include broad-based employee reward support and data assurance services. In addition, Willis Towers Watson (WTW) provided benchmarking support to the Committee in the year and incurred fees of £26,100.

The Committee considers the views of the Chair on the performance and remuneration of the Chief Executive, and of the Chief Executive on the performance and remuneration of the other members of the Group Executive Committee. The Committee is also supported by the Group General Counsel & Company Secretary, and either she or her delegate acts as Secretary to the Committee; the Chief People & Culture Officer; the Group Head of Reward; and, as required, the Chief Financial Officer, the Group Head of Pensions and Group Financial Controller.

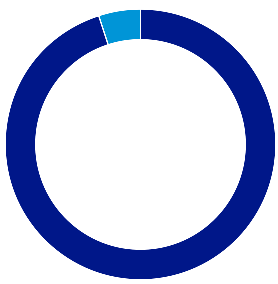
Voting on the Policy and the Directors' Remuneration Report at the 2022 AGM

2022 Policy



For 93%
Against 7%

Directors' Remuneration Report 2021/22



For 95%
Against 5%

Notes:

1. The Directors' Remuneration Policy voting figures shown refer to votes cast at the 2022 AGM and represent 66.28% of the share capital. In addition, shareholders holding 42.6 million shares abstained.
2. The Directors' Remuneration Report voting figures shown refer to votes cast at the 2022 AGM and represent 66.28% of the issued share capital.

Implementation of the Policy for 2023/24

The 2022 Policy, which was approved at the 2022 AGM, will be implemented during 2023/24 as outlined below:

Salary and pensions

Salary increases for the Executive Directors will be below the increase awarded to the UK wider workforce. Higher salary increases may be awarded for a change in responsibility. Additionally, in line with the Policy on recruitment remuneration, salaries for new Directors may be set below market level initially and aligned to market level over time (provided the increase is merited by the individual's contribution and performance).

John Pettigrew and Andy Agg will be awarded salary increases of 4.0%, effective from 1 July 2023.

	From 1 July 2023	From 1 July 2022	% increase
John Pettigrew	£1,136,200	£1,092,500	4.0%
Andy Agg	£747,800	£719,000	4.0%

The pension contribution for all Executive Directors is in line with the pension contribution rates for the UK wider workforce and new joiners at 12%.

2023/24 APP

The 2023/24 APP measures will be split across financial measures, operational measures and individual objectives, weighted 70%, 15% and 15% respectively. The maximum APP award for both the Executive Directors for 2023/24 is 125% of basic salary, in line with the Policy.

	Measure	Weighting
Financial measures	Underlying Group EPS A	35%
	Group RoE A	35%
Operational measures	Customer: Group customer satisfaction index	5%
	Colleague: Group 'Delivering Results' index	5%
	DEI: Gender and ethnic diversity of senior managers and above and of new joiners	5%
Individual objectives		15%

A Denotes an 'alternative performance measure' as described on page 14

Financial measures

Following the extensive review of measures as part of the Policy review, Underlying EPS and Group RoE have been retained as financial measures for the 2023/24 APP. Group RoE remains a relevant and key measure of performance as a primarily regulated asset-based company and targets are set to ensure strong in-year returns and operational results. Underlying EPS remains the most appropriate APP earnings measure for the business and the targets consider specific challenges and opportunities in the year ahead and are flexed accordingly whilst remaining consistent with our longer-term performance goals. Financial APP targets are considered commercially sensitive and consequently will be disclosed retrospectively in the 2023/24 Directors' Remuneration Report.

Operational measures

The 2023/24 APP operational measures are designed to incentivise key annual priorities aligned to the Group's strategy as a responsible business and broader ESG goals and are weighted equally across three key measures focused on customers, colleagues and DEI. Operational measures will be assessed against quantitive targets for threshold, target and stretch performance and then reviewed on a qualitative basis to reflect a balanced assessment of performance.

The Group customer satisfaction index is an equally weighted index of quantifiable and predominantly externally measured customer satisfaction scores across each of the business units. The customer measure reflects the strategic importance on delivering safe, reliable, resilient and affordable energy to customers whilst also ensuring operational excellence. The colleague 'Delivering Results' index quantitatively assesses our annual Group-wide employee engagement survey of colleagues and will align with our major delivery programmes. The DEI measure this year continues to be a quantifiable target and will focus on the overall gender diversity and ethnic diversity of senior managers and above as well as new entrants to the workforce. The intention is to improve the overall gender and ethnic diversity at specific layers to support the delivery of the Group's strategy.

Individual objectives

The Committee has approved individual objectives for the Executive Directors in line with key strategic and operational priorities for the year ahead. John Pettigrew's individual objectives for 2023/24 are focused on: 1) achieving greater clarity on future transmission and related investment in the UK in support of net zero; 2) advancing a framework of agreement on the future of natural gas in the US and 3) continuing to develop leaders for the future. Andy Agg's individual objectives are focused on: 1) ensuring the financing strategy is well understood with strong investor support; 2) establishing key relationships with our suppliers to facilitate time and cost-effective delivery of capital projects; 3) delivering CFO transformation roadmap and function capabilities and 4) improving leadership capabilities with a strong diverse talent pipeline.

2023 LTPP

The 2023 LTPP performance measures and weightings for all Executive Directors comprise two equally weighted financial measures totalling 80% and two equally weighted net zero transition measures with a combined weighting of 20% as outlined in the table below. The maximum 2023 LTPP award is 350% and 300% of base salary for John Pettigrew and Andy Agg respectively, in line with the Policy.

LTPP targets and performance are measured over the entire three-year performance period, which for the 2023 LTPP is 1 April 2023 – 31 March 2026. The 2022 Policy and the LTPP plan rules apply to the 2023 LTPP awards.

The Committee reviewed whether there was any risk of windfall gains and concluded that there was not material decline in the current share price to the previous share prices at award grants. Therefore, no adjustment is proposed to the 2023 LTPP award.

	Measure	Weighting
Financial measures	Cumulative 3 year Underlying Group EPS (A)	40%
	Group RoE (A)	40%
Net zero transition measures	National Grid Scope 1 emissions	10%
	Enablement of net zero transition: National Grid Scope 2 and 3 emissions and strategic initiatives	10%

(A) Denotes an 'alternative performance measure' as described on page 14

Financial measures

LTPP financial measures are selected to reflect key drivers of the Group's longer-term strategy and value creation for shareholders. Given the primarily regulated and long-term nature of our businesses, earnings growth and sustainable investment returns are important measures of long-term shareholder value creation. Whilst we recognise our short-term (APP) and long-term (LTPP) financial measures are similar, we believe these are the right measures to deliver both short- and long-term business strategy, long-term efficient asset growth and shareholder value.

As such, the 2023 LTPP financial measures are designed to incentivise different elements of performance over the long-term as compared with the short-term. Specifically in LTPP, Group RoE is averaged across the three-year performance period to incentivise sustainable returns for shareholders in the longer term. Similarly, the cumulative three-year Underlying Group EPS measure assesses Underlying EPS for the three years in the LTPP performance period.

As part of approving the 2023 LTPP performance range for the Financial measures, more specifically the Underlying EPS, the Committee carefully considered the impact of the changes in UK Capital Allowances announced by the UK Chancellor in March 2023. This is expected to reduce our cash tax payments to HMRC, but is not expected to directly reduce our overall accounting 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 revenues) from 2023/24 to 2025/26, despite this change being economically neutral to National Grid. More details on the earnings impact can be found on page 65.

It was within this context that the Committee approved the 2023 LTPP targets in respect of Underlying EPS. The 2023 LTPP Underlying EPS targets have been set in line with the Company's five-year investor frame of delivering EPS growth of 6-8% CAGR.

The Committee also noted that the change in UK Capital Allowances have a similar impact on the performance range of the 2022 LTPP (approved in May 2022), more specifically the forward looking two year period of the Cumulative Underlying EPS metric (for the years ending 31 March 2024 and 31 March 2025 respectively). The Committee agreed to review the options to reflect this later in the year.

The Committee also noted that the UK Capital Allowances change does not impact the Group RoE performance range due to the treatment of tax allowances within that calculation. However, the performance range for the 2023 LTPP in respect of Group RoE has been amended to reflect the impact of higher indexation on the denominator used in the calculation. The LTPP Underlying EPS measure will not be subject to the technical adjustments made in the annual Group EPS measure.

Below are the performance ranges for the financial measures in the 2023 LTPP.

Performance conditions

Performance measures	Weighting	Threshold 20% vesting	Maximum 100% vesting
Cumulative three-year Underlying Group EPS	40%	201p	219p
Group RoE	40%	8.25%	9.50%

Notes: Vesting between threshold and maximum will be on a straight-line basis. Underlying EPS growth reflects the cumulative summation of the Underlying EPS results for each of the three years in the performance period: 2023/24, 2024/25 and 2025/26.

Net zero measures

The net zero transition measures continue to set out targets and outcomes to achieve: (1) reductions in the Company's direct Scope 1 emissions and (2) enable the broader net zero energy transition.

The reduction of Scope 1 emissions target is a cumulative measure aligned to meet our 2030 emissions target. Our 2030 emissions targets have been SBTi validated and are aligned to a well below 2°C pathway. There has been no change to the underlying methodology and the Scope 1 reduction target continues to exclude the Long Island Power Authority (LIPA) generation asset emissions as management does not have direct control over decisions to run the assets. Broader considerations and actions regarding the longer term for LIPA have been incorporated into the second measure as part of enabling the net zero transition.

Performance measures	Weighting	Threshold 20% vesting	Maximum 100% vesting
Reduction of National Grid Scope 1 emissions	10%	-77 $ktCO_2e$	-127 $ktCO_2e$

The second measure reflects National Grid's role in enabling the net zero transition to a carbon neutral future by 2050. This measure will continue to assess delivery against key net zero strategic priorities and quantified outcomes that underpin the Group's strategy to enable a net zero future by 2050. The four key areas of focus remain: (1) US energy-efficiency programmes and generation; (2) UK net zero transmission strategy including interconnectors and transmission investment to connect offshore wind; (3) US future of gas strategy, including the transition to renewable natural gas (RNG), hydrogen and hybrid/electrification of heat; and (4) low-carbon electricity distribution investment in line with government and regulatory plans. The measure has been updated to add more quantifiable targets to the strategic initiatives and to ensure it reflects a 2023 – 2026 trajectory. Assessment of this measure will be based on a four-point scale (not met, partially achieved, achieved and over-achieved) based on delivery of quantifiable and qualitative outcomes to reflect a balanced assessment of performance.

Implementation of the Remuneration Policy for 2023/24 continued

Fees for Non-executive Directors

Non-executive Director fees were reviewed in May 2023 and will be effective from 1 July 2023 in line with the annual salary review cycle for the majority of our employees.

	From 1 July 2023 (£'000)	From 1 January 2022 (£'000)	% increase vs 2022
Chair	700.0	700.0	0.0%
Senior Independent Director	31.2	30.0	4.0%
Board fee	83.2	80.0	4.0%
Chair Audit & Risk Committee	35.0	31.9	9.7%
Chair Remuneration Committee	31.2	30.0	4.0%
Chair other Committees (Finance, Safety & Sustainability)	26.0	25.0	4.0%
Audit & Risk Committee member	23.9	23.0	4.0%
Remuneration Committee member	18.7	18.0	4.0%
Other Committee member (Finance, Safety & Sustainability, People & Governance)	15.6	15.0	4.0%

Note: For the People & Governance Committee, no fees are paid for the Committee Chair, the Senior Independent Director or the Board Chair. The Chair Audit & Risk fee will be increased by 9.7% given the increasing complexity with the role and to align fee with the market levels.

The Directors' Remuneration Report has been approved by the Board and signed on its behalf by:

Ian Livingston
Committee Chair
18 May 2023

Financial statements

Statement of Directors’ responsibilities

The Directors are responsible for preparing the Annual Report and Accounts, including the Group financial statements and the Parent Company financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare financial statements for each financial year. Under that law, the Directors are required to prepare the Group financial statements in accordance with International Accounting Standards in conformity with the requirements of the Companies Act 2006 and International Financial Reporting Standards (IFRS) as adopted by the UK. The financial statements also comply with IFRS as issued by the IASB. In addition, the Directors have elected to prepare the Parent Company financial statements in accordance with UK Generally Accepted Accounting Practice (UK Accounting Standards and applicable law), including FRS 101 ‘Reduced Disclosure Framework’. Under company law, the Directors must not approve the accounts unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Parent Company and of the profit or loss of the Group and Parent Company for that period.

In preparing the Group financial statements, International Accounting Standard 1 requires that Directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRS are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity’s financial position and financial performance; and
- make an assessment of the Group’s ability to continue as a going concern.

In preparing the Parent Company financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Group and Parent Company’s transactions and disclose with reasonable accuracy at any time the financial position of the Group and Parent Company on a consolidated and individual basis, and to enable them to ensure that the Group financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Parent Company and its subsidiaries and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the Company’s website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Having made the requisite enquiries, so far as the Directors in office at the date of the approval of this Report are aware, there is no relevant audit information of which the auditors are unaware and each Director has taken all reasonable steps to make themselves aware of any relevant audit information and to establish that the auditors are aware of that information.

Each of the Directors, whose names and functions are listed on pages 70 – 71 confirms that:

- to the best of their knowledge, the Group financial statements and the Parent Company financial statements, which have been prepared in accordance with IFRS as issued by the IASB and IFRS as adopted by the UK and UK GAAP FRS 101 respectively, give a true and fair view of the assets, liabilities, financial position and profit of the Company on a consolidated and individual basis;
- to the best of their knowledge, the Strategic Report contained in the Annual Report and Accounts includes a fair review of the development and performance of the business and the position of the Company on a consolidated and individual basis, together with a description of the principal risks and uncertainties that it faces; and
- they consider that the Annual Report and Accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company’s position and performance, business model and strategy.

This Responsibilities Statement was approved by the Board and signed on its behalf.

Directors’ Report

The Directors’ Report, prepared in accordance with the requirements of the Companies Act 2006 and the UK Listing Authority’s Listing Rules, and Disclosure Guidance and Transparency Rules, comprising pages 1 – 106 and 218 – 260, was approved by the Board and signed on its behalf.

Strategic Report

The Strategic Report, comprising pages 1 – 65, was approved by the Board and signed on its behalf.

By order of the Board

Justine Campbell

Group General Counsel & Company Secretary

17 May 2023

Company number: 04031152

Independent Auditor's Report to the members of National Grid plc

Report on the audit of the financial statements

1. Opinion

In our opinion:

- the financial statements of National Grid plc (the 'Parent Company') and its subsidiaries (the 'Group') give a true and fair view of the state of the Group's and the Parent Company's affairs as at 31 March 2023 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with United Kingdom adopted International Accounting Standards and International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board (IASB);
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 101 *Reduced Disclosure Framework*; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements which comprise:

Group:

- the consolidated income statement;
- the consolidated statement of comprehensive income;
- the consolidated statement of changes in equity;
- the consolidated statement of financial position;
- the consolidated cash flow statement; and
- the related notes 1 to 38 to the consolidated financial statements.

Parent Company:

- the Company accounting policies;
- the Company balance sheet;
- the Company statement of changes in equity; and
- the related notes 1 to 10 to the Company financial statements.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law, United Kingdom adopted International Accounting Standards and IFRSs as issued by the IASB. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is applicable law and United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 101 *Reduced Disclosure Framework* (United Kingdom Generally Accepted Accounting Practice).

2. Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the Group and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. The non-audit services provided to the Group and Parent Company for the year are disclosed in note 4e to the consolidated financial statements and note 10 to the Company financial statements. We confirm that we have not provided any non-audit services that are prohibited by the FRC's Ethical Standard to the Group or the Parent Company.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

3. Summary of our audit approach

Materiality	The materiality that we used for the Group financial statements was £150 million which represents 5.1% of adjusted profit before tax (profit before tax from continuing operations, excluding the impact of reported exceptional items and remeasurements) and 4.2% of profit before tax from continuing operations.
Scoping	Our scope covered eight components of the Group in addition to procedures performed at the Group level. Of these, three were subjected to a full-scope audit whilst the remaining five were subject to specific procedures on certain account balances. Our scoping covered 92% of the Group's revenue; 83% of the Group's profit before tax; and 89% of the Group's net assets.
Key audit matters	The key audit matters that we identified in the current year were: • NGED impairment testing of the related goodwill; • impact of climate change on property, plant and equipment; and • US environmental provisions. The following item was identified as a key audit matter in the prior year but not in the current year: • the acquisition of WPD (rebranded to NGED) has not been deemed to be a key audit matter in the current year as the acquisition has now been completed alongside the finalisation of the associated exercise to fair value the assets and liabilities at the date of acquisition. We only consider the NGED goodwill impairment testing to be a key audit matter in the current year. US environmental provisions were identified as a key audit matter in the current year. This was due to the increased estimation uncertainty in determining the future cash flows and discount rate for the environmental remediation provision.

4. Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Our evaluation of the directors' assessment of the Group's and Parent Company's ability to continue to adopt the going concern basis of accounting included:

- assessing the financing facilities including the nature of facilities, repayment terms and covenants;
- testing the clerical accuracy and appropriateness of the model used to prepare the forecasts;
- assessing the assumptions used in the forecasts, including the impact of the current macroeconomic environment;
- assessing management's identified potential mitigating actions and the appropriateness of the inclusion of these in the going concern assessment;
- assessing the historical accuracy of forecasts prepared by management;
- reading analyst reports, industry data and other external information to determine if it provided corroborative or contradictory evidence in relation to assumptions used;
- reperforming management's sensitivity analysis; and
- evaluating the disclosures made within the financial statements.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Group's and Parent Company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

In relation to the reporting on how the Group has applied the UK Corporate Governance Code, we have nothing material to add or draw attention to concerning the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting.

Our responsibilities and the responsibilities of the directors concerning going concern are described in the relevant sections of this report.

5. Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on; the overall audit strategy, the allocation of resources in the audit and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

5.1 NGED impairment testing of the related goodwill

Key audit matter description

Goodwill – Impairment Testing of National Grid Electricity Distribution – Refer to notes 1F and 11 to the financial statements and the Audit & Risk Committee's discussion on pages 83 to 87.

The National Grid Electricity Distribution ('NGED') goodwill balance of £4,721 million (2022: £4,721 million) was tested for impairment at 31 December 2022. This was performed in line with the requirement under IAS 36 – *Impairment of Assets* to perform an impairment review annually. A subsequent assessment of potential impairment indicators was performed at 31 March 2023.

Management prepared a discounted cash flow model to estimate the value-in-use and compared this to the carrying value; this indicated there was headroom and accordingly no impairment was recognised. The value-in-use was measured for the combined NGED Cash-Generating Units to which the goodwill relates (the 'Goodwill CGU'), and the calculation was derived from multiple inputs to the model. These inputs include the following areas of complexity:

- **Discount rate inputs** – Management utilised a nominal pre-tax discount rate of 5.6%. The discount rate should reflect the return required by the market and the risks inherent in the cash flows being discounted and accordingly should be independent of the actual capital structure of the business being assessed. Identification of appropriate inputs for the discount rate calculation requires significant judgement in the current macro-economic environment, and a failure to apply a reasonable discount rate methodology when determining the discount rate inputs could lead to a material misstatement of goodwill. Further, judgement is required when determining an appropriate company specific risk premium, including consideration of the level of risk adjustment reflected in the underlying cash flows.
- **Total expenditure ('totex') forecasts** – The model used for the impairment test leverages the cash flow forecasts which extend to 2050 with the terminal value then applied. This longer forecast period exceeds that required under IAS 36, and includes negative cash flows for a number of years, due to the level of totex required to reinforce the networks to meet expected electricity demand and comply with the Group's licence conditions. The future forecast expenditure reflects the future electrification of the network, with increased demand for Low-carbon Technologies ('LCTs') including electric vehicles and heat pumps, which will also require more connections on the distribution network. There are a number of potential pathways for the energy transition to 2050 with varying extents and timings for the incremental electricity demand leading to greater uncertainty in the level of future totex required. Thus, significant judgement must be applied when forecasting the future cash flows.

The impairment test of the NGED Goodwill CGU involved significant assumptions, particularly those mentioned above. Auditing these assumptions required a high degree of auditor judgement, including the need to involve more senior members of the team and several valuations specialists.

How the scope of our audit responded to the key audit matter	We tested the effectiveness of controls over management's impairment review of the NGED business. In addition, we conducted the following substantive procedures. **Discount rate inputs** • We engaged our valuation specialists to assess the reasonableness of the discount rate inputs and the methodology applied. Our specialists developed an independent range for a reasonable discount rate using relevant third-party market and peer data for the NGED business. We compared management's calculated rate to our reasonable range. • We challenged the company specific risk premium in the context of the risk adjustments and contingencies included in the underlying cash flow assumptions. • We challenged and independently assessed the disclosures around the discount rate in notes 1F and 11 to the financial statements. **Totex forecasts** • We compared the projected totex to historical information observed in ED1 and the allowances set by Ofgem as part of the ED2 final determinations. • We understood the underlying inputs used by management and its external expert in developing the forecast totex from ED3 onwards. We engaged our industry specialists to challenge these inputs and forecasts by benchmarking the assumptions against third-party and relevant industry publications to inform our assessment of the nature, timing and extent of the expected electrification in the UK. Some examples of industry publications include those obtained from the Department for Business, Energy & Industrial Strategy ('BEIS') such as the 'Electricity network strategic framework' ('ENSF') and 'Modelling 2050: Electricity system analysis' ('ESA'). • We evaluated the competence, capabilities and objectivity of the third-party industry experts used by management to develop the totex forecasts including through direct discussion. **Other** • We assessed whether the impairment methodology including the duration of the cash flows applied by management was acceptable under IFRS and tested the integrity and mechanical accuracy of the impairment model with the assistance of our valuation specialists. • We assessed whether management's impairment forecasts are consistent with other forecasts used by management, including the going concern model. • With the assistance of our climate specialists, we assessed whether management's forecasts are consistent overall with the Group's own-stated climate commitments. • We evaluated all changes to key assumptions between the prior year impairment review and the current year's review, and challenged whether market conditions in the current year had been appropriately considered in the assumptions. • We challenged management's assessment of potential impairment indicators as described in IAS 36 at 31 March 2023. • We challenged management's disclosures in notes 1F and 11 for compliance with the disclosure requirements described in IAS 36.
Key observations	Our testing confirmed that relevant controls over management's impairment test of the NGED Goodwill CGU were designed and operating effectively. Ofgem issued the final ED2 price control determinations which are effective from 1 April 2023 to 31 March 2028. Management's forecasts reflect and assume a continuation of the principles applied in ED2 for the future regulatory price controls to 2050. However, should there be a significant change in the stability of the regulatory model that governs the performance of electricity distribution operators, this could create a risk of impairment, as set out in note 11 to the financial statements. **Discount rate** Management's pre-tax discount rate of 5.6% is within the reasonable range determined by our specialists. We agree with the methodology applied in light of current macroeconomic conditions. **Totex forecasts** For the purpose of the impairment test, management has used forecasts for totex which we consider represent a reasonable view of the extent of expected electrification in targeting net-zero when compared with a range of scenarios in the public domain.

5.2 Impact of climate change on property, plant and equipment

Key audit matter description	**Property, plant and equipment – the impact of climate change on US gas assets – refer to notes 1F and 13 to the financial statements and the Audit & Risk Committee's discussion on pages 83 to 87.** The US have enacted legislation and established targets in respect of net zero carbon emissions by 2050. Accordingly, climate change represents a strategic challenge for the Group, which has also set targets for reducing greenhouse gas emissions by the same date. Natural gas, when burned, emits carbon dioxide and is considered a greenhouse gas. Therefore, the strategic challenge relates to the potential future use of the Group's gas assets, which are used to facilitate gas distribution services in the period approaching 2050 and beyond. Particular focus is on the useful economic lives of the National Grid Group's gas assets in the US which are up to 80 years, extending well beyond the 2050 net zero commitment date. As described in note 13 to the financial statements, the impact of changing the useful economic lives of the gas assets in the US, such that they would be fully depreciated by 2050, would be an increase in the annual depreciation expense of £239 million. As the continued use of natural gas as a primary energy source beyond 2050 appears to be in conflict with net zero targets and the impact of shortening the useful lives of the gas assets to 2050 has a material impact on annual depreciation, there is a risk that management judgements taken to determine the useful lives of US gas assets in the context of net zero commitments are not reasonable. The Group announced in April 2022 its Clean Energy Vision ('CEV') to eliminate fossil fuels from its gas and electric systems in New York state and Massachusetts by 2050, by decarbonising the gas network through the use of renewable natural gas ('RNG') and green hydrogen. Both New York and Massachusetts, the largest states in which the Group operates, announced non-legally binding climate action plans. The New York Scoping Plan targets 85% of homes and commercial building space in New York being electrified by 2050. The Massachusetts Clean Energy and Climate Plan for 2025 and 2030 ('CECP') targets a high use of electrification including widespread deployment of heat pumps for buildings. Both plans envisage moderate demand for RNG and hydrogen in 2050. Although there are uncertainties around the sufficiency of RNG supply and the use of hydrogen for home heating as they are early-stage technologies, management is of the view that a hybrid electric-gas heating system approach will be a practical and achievable pathway to meet the state and regional decarbonisation goals. Management's CEV, which will require legislative and regulatory support to implement, proposes a hybrid approach that management considers the most economically and technically viable home heating approach reflecting the climate and housing stock in the states in which it operates. This hybrid approach would mean there would be a need for the Group's US gas assets in the long term and hence management's judgement is that the regulatory lives of US gas assets continue to be considered as the best estimate of their useful economic lives. Management disclosed a key judgement in relation to the potential future use of the US gas assets post-2050 and disclosure of the gas asset lives as a key estimate along with disclosure of sensitivity analysis. We have identified the estimated useful lives of the Group's gas distribution assets in the US as a key audit matter due to the significance of the judgement involved.

How the scope of our audit responded to the key audit matter	We tested the effectiveness of controls over management's assessment and disclosure of the potential impacts associated with the energy transition and climate change.
	
	With the assistance of our sustainability specialists, we challenged the appropriateness of the useful lives of the US gas assets, including management's judgement that it is probable they will extend beyond 2050 in light of the different goals, commitments and legislation relating to net zero in the US states in which the Group operates by:
	
	• understanding management's CEV and other potential strategic pathways to achieve net zero targets in New York and Massachusetts;
	• obtaining and reading key federal and state policy announcements for achieving net zero including those set out below and evaluating the extent to which they were consistent or contradictory to management's CEV:
	  • The Massachusetts Clean Energy and Climate Plan (issued in December 2022)
	  • National Grid New York Climate Leadership and Community Protection Act Study (issued in February 2023)
	  • Future Energy Scenarios 2022, published by the Electricity System Operator (issued in February 2023)
	  • The New York State Climate Action Council Scoping Plan (issued in December 2022);
	• obtaining and reading third-party engineering and technical studies to assess the relative costs and viabilities of the different pathways and technologies proposed, including the technical feasibility of management's plans by considering the readiness for hydrogen blending with other gases across both transmission and distribution networks and the scalability of RNG supply;
	• discussing with Deloitte specialists in other countries regarding the suitability of existing gas infrastructure for transporting hydrogen across gas assets as well as the potential cost effectiveness of green hydrogen and considering the impact on management's CEV;
	• evaluating correspondence from the Group's regulators, including rate cases in the US, to consider whether they presented any contradictory evidence; and
	• assessing the disclosures set out in note 1F to the financial statements and the sensitivity analysis set out in note 13 to the financial statements regarding the useful economic lives of the Group's gas assets, for compliance with the disclosure requirements of IAS 1 – *Presentation of Financial Statements*.

Key observations	• Our testing confirmed that the relevant controls over management's assessment of the impact of the energy transition and climate change were designed and operating effectively. • Management's best estimate of the useful economic lives of US gas assets, across all states in which it operates, is based on the depreciable lives identified through engineering depreciation studies for each asset which are approved by the respective state regulator. Accordingly, the IFRS asset depreciable lives are identical to those agreed by the Group's regulators for regulatory purposes. • We observe that whilst some indicators do exist suggesting that the useful economic lives of the Group's US gas assets may be limited to 2050, these are contradicted by other policy statements and technical studies which suggest electrification alone is not the most economically and technically viable solution and therefore gas distribution assets in the US, will continue to have a role beyond 2050. • We note that whilst state energy policy in the US states in which the Group operates is codified by the legislature, it is the regulators who are charged with implementing state energy policies. We concluded it was reasonable to assume that there will be a valuable use for the Group's US gas assets beyond 2050 and in the absence of any determination by the Group's regulators, it continues to be reasonable to use the regulatory asset lives for the calculation of depreciation in accordance with IFRS. • We consider the disclosures in note 1 to the financial statements and the sensitivity analysis in note 13 to the financial statements to be appropriate. We are satisfied that management's other disclosures in the Annual Report and Accounts relating to the uncertainty surrounding the future use of the Group's gas assets are consistent with the financial statements and our understanding of the business.

5.3 US environmental provisions

Key audit matter description	**US environmental provisions – Refer to notes 1F, 26 and 35 to the financial statements and the Audit & Risk Committee's discussion on pages 83 to 87.** At 31 March 2023 the Group has £1,891 million (2022: £1,877 million) of environmental provisions, of which £1,768 million (2022: £1,725 million) are in the US and £123 million (2022: £152 million) are in the UK. The Group's environmental provisions relate to a number of sites owned and managed by the Group together with certain US sites which are no longer owned. In the US, the provision is in respect of 221 sites which vary in the level of remediation performed to date and remaining remediation required. Of the total US environmental provisions of £1,768 million, more than half relates to three former sites which were identified by the Environmental Protection Agency (EPA) as sites of significant contamination (Superfund sites). The EPA, and additional environmental agencies at the state level, have the authority to force the parties responsible for the contamination of these sites either to perform remediation works or reimburse the government for work led by the EPA. Environmental provisions are calculated based on management's best estimate of the cash flows that will be required, discounted at a real discount rate, calculated based on the US government bond yield curve and the weighted average life of the provisions. There are a number of estimation uncertainties across all of the sites, including the Superfund sites. The Superfund sites are particularly complicated because of their size, the number of parties involved and the stage of remediation the projects are at. The uncertainties that exist in relation to these sites include: • the impact of changes in regulation or the environmental agencies' interpretation and implementation of the regulations; • the extent of contamination identified and modelled from ongoing exploratory works; • the form, timing, extent and associated cost of remediation needed; • the methods and technologies used in remediation; • the allocation of responsibility for remediation; and • the discount rate applied to the forecast cash flows. In the current year, additions of £142 million have been recorded, predominantly relating to a number of other higher risk US sites. We determined that the estimation of the discounted cash outflows was the most significant and sensitive estimate to a change in reasonably possible outcomes for the total US environmental provision. Management is required to make judgements in selecting an appropriate discount rate which reflects changes in US treasury rates as current market assessments of the time value of money. The Group increased the real discount rate applied to the undiscounted cash flows from 0.5% in the prior year to 1.5% for US provisions to reflect the substantial and sustained change in US government bond yield curves. As described in note 35, changes to the discount rate applied could have a material impact on the provision balance in the next year. We have identified the US environmental provisions as a key audit matter due to the complexities in estimating the future cost of remediation and the judgement involved in the determination of the discount rate applied.

How the scope of our audit responded to the key audit matter	We tested the effectiveness of controls over management's compilation of forecast cash flows and determination of the discount rate. With regard to the estimated cash outflows: • we performed detailed risk assessments to categorise US sites based on size and the level of estimation uncertainty; • with respect to higher risk sites, we agreed the proposed remediation activities and associated timing to technical engineering studies and remediation plans agreed with the environmental agencies where available. The associated costings of these activities were agreed to third-party contracts and other benchmarks. We utilised our environmental specialists to assist us in evaluating management's key assumptions; • in order to assess the completeness of the year end liabilities we completed public domain searches on federal databases across all Group subsidiaries to determine whether any relevant costs or applicable sites were omitted. We further checked for the latest regulatory changes at the federal and local level and precedent from remediation plans recently agreed with the environmental agencies, to determine any indication of changing requirements; • at selected sites, we evaluated the results of ongoing environmental testing for potential non-compliance or evidence that the existing or planned remediation activities would require revision or enhancement; • we read relevant correspondence and meeting minutes with the environmental agencies, using our specialists to evaluate management's position where significant estimation of uncertainty exists; • we considered information obtained from the Group's internal legal counsel in our evaluation of the recorded provisions; and • we performed additional procedures on one site with ongoing uncertainty around the allocation of responsibility. Specifically relating to the judgement over the estimated allocation of total remediation costs, we made enquiries of the US internal legal counsel and obtained analysis directly from external legal counsel to understand any potential changes to the previously determined positions. We enquired of the Group's external legal counsel to provide views regarding the Potentially Responsible Party ('PRP') allocation. We evaluated settlements in the period with PRPs and compared the results to their assumed shares. We evaluated publicly available financial statement information and disclosures for a selection of PRPs to identify contradictory evidence in their share percentage and test financial viability. We assessed the extent to which there is evidence obtained demonstrating that the allocations will be substantially followed by all parties. We challenged the methodology that management has adopted for calculating the discount rate with the support of our valuation specialists. In addition, we independently calculated an appropriate discount rate range and used this to assess management's rate. We assessed management's disclosures in notes 1F, 26 and 35.
Key observations	Our testing confirmed that the relevant controls over the compilation of forecast cash flows and the determination of the discount rate were designed and operating effectively. We found the provisioning assumptions associated with the tested sites to be reasonable, including the US Superfund sites. In respect of the US Superfund sites we are satisfied that management's estimate of the proportion of costs expected to be allocated to the Group are within our independently calculated range. We consider the increase in real discount rates from 0.5% to 1.5% applied to be reasonable based on the movement in treasury yields. We noted that the assumptions and judgements that are required to formulate the provisions mean that the range of possible outcomes is broad, hence it is appropriate for management to disclose the key estimation of uncertainty and the sensitivity of the judgments they applied. We are satisfied that the Group's disclosures of the key estimation of uncertainty, related contingent liabilities, and sensitivities, are reasonable.

6. Our application of materiality

6.1 Materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent Company financial statements
Materiality	£150 million (2022: £135 million)	£150 million (2022: £135 million)
The basis for determining materiality	Our determined materiality represents 5.1% (2022: 4.7%) of adjusted profit before tax from continuing operations and 4.2% (2022: 3.9%) of profit before tax from continuing operations. Adjusted profit before tax is profit before tax, exceptional items and remeasurements as disclosed in the consolidated income statement. Prior year materiality was determined on a similar basis.	We determined materiality for our audit of the Parent Company financial statements using 0.92% of net assets (2022: 0.83%). The increase in materiality is in part a result of net assets increasing in the current year. In addition, we decided to cap the Parent Company materiality with Group materiality.

The rationale for the benchmark applied

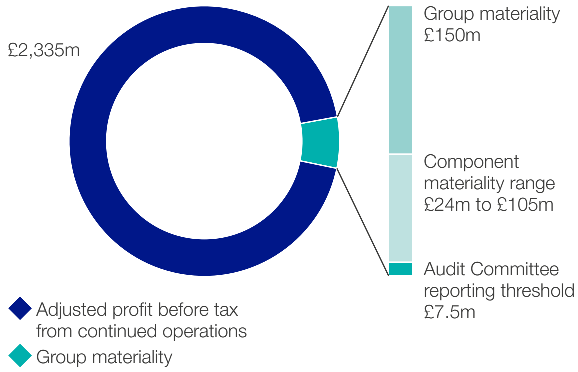
Group financial statements:

We consider adjusted profit before tax to be an important benchmark of the performance of the Group. We consider it appropriate to adjust for exceptional items and remeasurements as these items are volatile and not reflective of the underlying performance of the Group.

We conducted an assessment of which line items we understand to be the most important to investors and analysts by reviewing analyst reports and National Grid's communications to shareholders and lenders, as well as the communications of peer companies. This assessment resulted in us considering the financial statement line items above.

Profit before tax is the benchmark ordinarily considered by us when auditing listed entities. It provides comparability against other companies across all sectors but has limitations when auditing companies whose earnings are impacted by items which can be volatile from one period to the next, and therefore may not be representative of the volume of transactions and the overall size of the business in a given year, or where the impact of volatility may result in the recognition of material income or charges in a particular year.

Whilst not an IFRS measure, adjusted profit is one of the key metrics communicated by management in National Grid's results announcements. It excludes some of the volatility arising from changes in fair values of financial assets and liabilities as well as exceptional items. It was also the key measure applied in the prior year.



Parent Company financial statements:

As the Company is non-trading, operates as a holding company for the Group's trading entities, and is not profit orientated, we believe the net asset position is the most appropriate benchmark to use.

6.2 Performance materiality

We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the financial statements as a whole.

	Group financial statements	Parent Company financial statements
Performance materiality	70% (2022: 70%) of Group materiality. Consistent with the prior year, we have set this at 70% of materiality.	70% (2022: 70%) of Parent Company materiality. Consistent with the prior year, we align performance materiality with the Group performance materiality.
Basis and rationale for determining performance materiality	In determining performance materiality, we considered the following factors: • our cumulative experience from prior year audits; • the level of corrected and uncorrected misstatements identified; • our risk assessment, including our understanding of the entity and its environment; and • our assessment of the Group's overall control environment. We also considered the level of change in the business from the prior year.	

6.3 Error reporting threshold

We agreed with the Audit & Risk Committee that we would report to the Committee all audit differences in excess of £7.5 million (2022: £6.75 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit & Risk Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

7. An overview of the scope of our audit

7.1 Identification and scoping of components

Our audit was scoped by obtaining an understanding of the Group and its environment and assessing the risks of material misstatements at the Group level. We used data analytics tools and specialists to help inform our understanding of the business, identify key risk areas and evaluate the level of audit coverage required.

The UK Electricity Transmission, UK Electricity Distribution and US Regulated (comprising the New York and New England business units) components were subject to a full-scope audit, completed to the individual component materiality levels set out below.

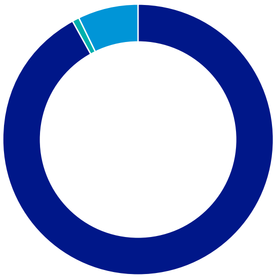
In addition to the above components subject to full scope audit procedures by the component teams, we have identified five other business units which form part of National Grid Ventures and Other, where we consider there to be a reasonable possibility of material misstatement in specific items within the financial statements: National Grid Electricity System Operator, UK Gas Transmission, National Grid Ventures UK, National Grid Ventures US (including GENCO) and National Grid Partners. Accordingly, we have directed component auditors to perform specific audit procedures in relation to material account balances and analytical procedures on the respective income statements and statements of financial position for these components.

Business unit	Audit scope	Component materiality
UK Electricity Transmission	Full scope audit	£58 million
US Regulated (comprising New York and New England)	Full scope audit	£105 million
UK Electricity Distribution	Full scope audit	£58 million
National Grid Electricity System Operator	Audit of specified account balances	£42 million
UK Gas Transmission	Audit of specified account balances	£53 million
National Grid Ventures UK	Audit of specified account balances	£58 million
National Grid Ventures US (including GENCO)	Audit of specified account balances	£58 million
National Grid Partners	Audit of specified account balances	£40 million

In addition to the work performed at a component level, the Group audit team performed audit procedures on the Parent Company financial statements, including but not limited to corporate activities such as treasury as well as on the consolidated financial statements themselves, including entity-level controls, the consolidation, financial statement disclosures and risk assessment work on components not included elsewhere in the scope of our audit. The Group audit team also performed analytical reviews on out-of-scope components, co-ordinated the work in connection with the impact of climate change on the useful lives of the Group's gas assets and performed certain procedures on key areas, such as the NGED goodwill impairment and environmental provisions, where audit work is performed by both the Group and component audit teams.

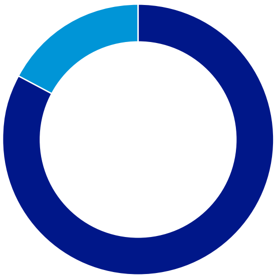
The scope and risk assessment of our audit is broadly consistent with the prior year and our audit coverage of 'Revenue', 'Profit before tax' and 'Net assets' is materially the same as in the prior year.

Revenue



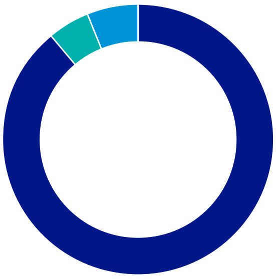
- Full audit scope 92%
- Specified audit procedures 1%
- Review at Group level 7%

Profit before tax



- Full audit scope 83%
- Specified audit procedures 0%
- Review at Group level 17%

Net assets



- Full audit scope 89%
- Specified audit procedures 5%
- Review at Group level 6%

7.2 Our consideration of the control environment

Our audit approach was generally to place reliance on management's relevant controls of overall business cycles affecting in scope financial statement line items. We tested controls through a combination of tests of inquiry, observation, inspection and re-performance.

In some circumstances where controls were deficient and there were not sufficient mitigating or alternative controls we could rely on, we adopted a non-control reliance approach. All control deficiencies which we considered to be significant were communicated to the Audit & Risk Committee. All other deficiencies were communicated to management. For all deficiencies identified, we considered the impact and updated our audit plan accordingly.

The Group's financial systems environment relies on a high number of UK and US applications. In the current year, we identified 45 IT systems as relevant to the audit. These systems are all directly or indirectly relevant to the entity's financial reporting process.

We planned to rely on the General IT Controls (GITCs) associated with these systems, where the GITCs were appropriately designed and implemented, and these were operating effectively. To assess the operating effectiveness of GITCs, our IT audit specialists performed testing on access security, change management, data centre operations and network operations.

7.3 Our consideration of climate-related risks

Climate change impacts National Grid's business in several ways as set out in the Strategic Report on page 21 of the annual report and note 1 of the financial statements on page 129. It represents a key strategic consideration of management.

We reviewed management's climate change risk assessment and evaluated the completeness of identified risks and the impact on the financial statements. We also considered the impact of climate change in our risk assessment procedures. Management's assessment included an overview of the legislative changes in the US, key developments post COP26 and an evaluation of the possible future use of National Grid's US gas assets in a net zero carbon energy system. Both management's and our risk assessment identified the useful economic lives of the gas assets in the US, as the key risk as described in note 13 to the financial statements and in the Audit & Risk Committee report (page 84). Our response to this risk is documented in our Key Audit Matter on pages 110 – 114.

In addition to the procedures in respect of the Key Audit Matter mentioned above, with the involvement of our climate change specialists we:

- made enquiries to senior management to understand the potential impact of climate change risk including physical risks to producing network assets, the potential changes to the macro-economic environment and the potential for the transition to a low carbon environment to occur quicker than anticipated;
- read the climate-related statements made by management (as disclosed in 'The Environment' section of the 'Our commitment to being a responsible leader' in the Strategic Report) and considered whether these were in line with our understanding of managements approach to climate change and the narrative reporting was in line with financial statements and the knowledge obtained throughout the audit;
- read the Task Force on Climate-related Financial Disclosures (TCFD) and considered if any of the information disclosed was inconsistent with the information we obtained through our audit; and
- read and considered external publications by recognised authorities on climate change such as the International Energy Agency's World Energy Outlook amongst others.

7.4 Working with other auditors

The Group audit team are responsible for the scope and direction of the audit process and provide direct oversight, review and coordination of our component audit teams.

As each of the financially significant components maintains separate financial records, we have engaged component auditors from the Deloitte member firms in the US or the UK to perform procedures at these components on our behalf. This approach allows us to engage local auditors who have appropriate knowledge of local regulations to perform this audit work. We issued detailed instructions to the component auditors and directed and supervised their work.

We interacted regularly with the component Deloitte teams during each stage of the audit and reviewed key working papers. We maintained continuous and open dialogue with our component teams in addition to holding formal meetings to ensure that we were fully aware of their progress and the results of their procedures.

Our oversight of component auditors focused on the planning of their audit work and key judgements made. In particular, our supervision and direction focused on the work performed in relation to key estimates and judgements made by management. As part of our monitoring of component auditors, we participated in key local audit meetings.

The senior statutory auditor and other Group audit partners conducted visits to meet in person with the component teams responsible for the full scope locations, which was supplemented by procedures performed remotely throughout the year. Their involvement included attending planning meetings, discussing the audit approach and any issues arising from the component team's work, meetings with local management and reviewing key audit working papers on higher and significant-risk areas to drive a consistent and high-quality audit. The level of involvement of the lead audit partner and the Group audit team in the component audits has been extensive and we are satisfied that it has enabled us to conclude that sufficient appropriate audit evidence has been obtained in support of our opinion on the Group financial statements as a whole.

8. Other information

The other information comprises the information included in the Annual Report, other than the financial statements and our auditor's report thereon. The Directors are responsible for the other information contained within the Annual Report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

9. Responsibilities of Directors

As explained more fully in the Directors' responsibilities statement, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's and the Parent Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

10. Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken based on these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

11. Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

11.1 Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the Group's remuneration policies, key drivers for Directors' remuneration, bonus levels and performance targets;
- the Group's own assessment of the risks that irregularities may occur either as a result of fraud or error that was approved by the Audit & Risk Committee on 21 March 2023;
- results of our enquiries of management, internal audit, and the Audit & Risk Committee about their own identification and assessment of the risks of irregularities;
- any matters we identified having obtained and reviewed the Group's documentation of their policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud; and
  - the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations.
- the matters discussed among the engagement team and our specialists regarding how and where fraud might occur in the financial statements and any potential indicators of fraud. The engagement team includes partners and staff who have extensive experience working with companies in the same sectors as National Grid operates, and this experience was relevant to the discussion about where fraud risks may arise. Fraud specialists also advised the engagement team of fraud schemes that had arisen in similar sectors and industries and they participated in the initial fraud risk assessment discussions.

11.1 Identifying and assessing potential risks related to irregularities continued

In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override of controls.

We also obtained an understanding of the legal and regulatory frameworks that the Group operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the UK Companies Act, Listing Rules, pensions legislation, tax legislation, UK Corporate Governance Code, IFRS as issued by the IASB, United Kingdom adopted international accounting standards, FRS 101, as well as the US Securities Exchange Act 1934 and relevant SEC regulations, as well as laws and regulations prevailing in each country which we identified a full scope component.

In addition, we considered provisions of other laws and regulations that do not have a direct effect on the financial statements but compliance which may be fundamental to the Group's ability to operate or to avoid a material penalty. These included the Group's operating licences and environmental regulations.

11.2 Audit response to risks identified

As a result of performing the above, we did not identify any key audit matters related to the potential risk of fraud or non-compliance with laws and regulations.

Our procedures to respond to the risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements;
- enquiring of management, the Audit & Risk Committee and in-house legal counsel concerning actual and potential litigation and claims;
- obtaining confirmations from external legal counsel concerning open litigation and claims;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with relevant regulatory authorities; and
- testing the design of the entity-level controls, particularly in respect of the whistleblowing process.

In addressing the risk of fraud through management override of controls our procedures included:

- working with our forensic specialists to perform detailed audit procedures on business transactions with high-risk individuals and companies;
- making enquiries of individuals involved in the financial reporting process about inappropriate or unusual activity relating to the processing of journal entries and other adjustments;
- using our data analytics tools, we selected and tested journal entries and other adjustments which were either made at the end of a reporting period or which identified activity that exhibited certain characteristics of audit interest;
- assessing whether the judgements made in making accounting estimates are indicative of a potential bias;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud; and
- considering whether any significant transactions are outside the normal course of business, or that otherwise appear to be unusual due to their nature, timing or size.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members including internal specialists and significant component audit teams. We remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Report on other legal and regulatory requirements

12. Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the Financial Statements are prepared is consistent with the Financial Statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the Group and the Parent Company and their environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report or the Directors' Report.

13. Corporate Governance Statement

The Listing Rules require us to review the Directors' statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the Group's compliance with the provisions of the UK Corporate Governance Code specified for our review.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements and our knowledge obtained during the audit:

- the Directors' statement with regards to the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified set out on page 127;
- the directors' explanation as to its assessment of the Group's prospects, the period this assessment covers and why the period is appropriate set out on pages 25 – 27;
- the directors' statement concluding that the Annual Report & Accounts are fair, balanced and understandable set out on pages 83 and 108;
- the Board's confirmation that it has carried out a robust assessment of the emerging and principal risks set out on pages 18 – 24 and 73;
- the section of the Annual Report that describes the review of the effectiveness of risk management and internal control systems set out on pages 18 – 24; and
- the section describing the work of the Audit & Risk Committee set out on pages 83 – 87.

14. Matters on which we are required to report by exception

14.1 Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

14.2 Directors' remuneration

Under the Companies Act 2006 we are also required to report if, in our opinion, certain disclosures of directors' remuneration have not been made or the part of the Directors' Remuneration Report to be audited is not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

15. Other matters which we are required to address

15.1 Auditor tenure

We became independent and commenced our audit transition on 1 January 2017. Following the recommendation of the Audit & Risk Committee, we were appointed by the shareholders at the Annual General Meeting on 31 July 2017 to audit the financial statements for the year ending 31 March 2018 and subsequent financial periods.

The period of total uninterrupted engagement including previous renewals and reappointments of the firm is six years, covering the years ending 31 March 2018 to 31 March 2023.

15.2 Consistency of the audit report with the additional report to the Audit & Risk Committee

Our audit opinion is consistent with the additional report to the Audit & Risk Committee we are required to provide in accordance with ISAs (UK).

16. Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

As required by the Financial Conduct Authority (FCA) Disclosure Guidance and Transparency Rule (DTR) 4.1.14R, these financial statements will form part of the European Single Electronic Format (ESEF) prepared Annual Financial Report filed on the National Storage Mechanism of the UK FCA in accordance with the ESEF Regulatory Technical Standard (ESEF RTS). This auditor's report provides no assurance over whether the annual financial report has been prepared using the single electronic format specified in the ESEF RTS.

Christopher Thomas FCA (Senior statutory auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
London, United Kingdom
17 May 2023

Consolidated income statement
for the years ended 31 March

2023	Notes	Before exceptional items and remeasurements £m	Exceptional items and remeasurements (note 5) £m	Total £m
Continuing operations				
Revenue	2(a),3	**21,659**	**—**	**21,659**
Provision for bad and doubtful debts	4	**(220)**	**—**	**(220)**
Other operating costs	4,5	**(17,158)**	**(391)**	**(17,549)**
Other operating income	5	**13**	**976**	**989**
Operating profit	2(b)	**4,294**	**585**	**4,879**
Finance income	5,6	**166**	**(28)**	**138**
Finance costs	5,6	**(1,680)**	**82**	**(1,598)**
Share of post-tax results of joint ventures and associates	5,16	**190**	**(19)**	**171**
Profit before tax	2(b),5	**2,970**	**620**	**3,590**
Tax	5,7	**(635)**	**(241)**	**(876)**
Profit after tax from continuing operations		**2,335**	**379**	**2,714**
Profit after tax from discontinued operations	10	**320**	**4,763**	**5,083**
Total profit for the year (continuing and discontinued)		**2,655**	**5,142**	**7,797**
Attributable to:				
Equity shareholders of the parent		**2,655**	**5,142**	**7,797**
Non-controlling interests from continuing operations		**—**	**—**	**—**
Earnings per share (pence)				
Basic earnings per share (continuing)	8			**74.2**
Diluted earnings per share (continuing)	8			**73.8**
Basic earnings per share (continuing and discontinued)	8			**213.1**
Diluted earnings per share (continuing and discontinued)	8			**212.1**

2022	Notes	Before exceptional items and remeasurements £m	Exceptional items and remeasurements (note 5) £m	Total £m
Continuing operations				
Revenue	2(a),3,5	18,260	189	18,449
Provision for bad and doubtful debts	4	(167)	—	(167)
Other operating costs[1]	4,5	(14,280)	141	(14,139)
Other operating income[1]	5	—	228	228
Operating profit	2(b)	3,813	558	4,371
Finance income	5,6	65	(15)	50
Finance costs	5,6	(1,146)	74	(1,072)
Share of post-tax results of joint ventures and associates	5,16	148	(56)	92
Profit before tax	2(b),5	2,880	561	3,441
Tax	5,7	(669)	(589)	(1,258)
Profit after tax from continuing operations		2,211	(28)	2,183
Profit after tax from discontinued operations	10	344	(173)	171
Total profit for the year (continuing and discontinued)		2,555	(201)	2,354
Attributable to:				
Equity shareholders of the parent		2,554	(201)	2,353
Non-controlling interests from continuing operations		1	—	1
Earnings per share (pence)				
Basic earnings per share (continuing)	8			60.6
Diluted earnings per share (continuing)	8			60.3
Basic earnings per share (continuing and discontinued)	8			65.4
Diluted earnings per share (continuing and discontinued)	8			65.0

1. Comparatives have been re-presented to disclose other operating income separately from other operating costs.

Consolidated income statement
for the years ended 31 March continued

2021	Notes	Before exceptional items and remeasurements £m	Exceptional items and remeasurements (note 5) £m	Total £m
Continuing operations				
Revenue	2(a),3	13,665	—	13,665
Provision for bad and doubtful debts	4	(325)	—	(325)
Other operating costs	4,5	(10,913)	(26)	(10,939)
Operating profit	2(b)	2,427	(26)	2,401
Finance income	5,6	35	23	58
Finance costs	5,6	(900)	47	(853)
Share of post-tax results of joint ventures and associates	5	66	(8)	58
Profit before tax	2(b),5	1,628	36	1,664
Tax	5,7	(334)	(26)	(360)
Profit after tax from continuing operations		1,294	10	1,304
Profit after tax from discontinued operations	10	340	(3)	337
Total profit for the year (continuing and discontinued)		1,634	7	1,641
Attributable to:				
Equity shareholders of the parent		1,633	7	1,640
Non-controlling interests from continuing operations		1	—	1
Earnings per share (pence)				
Basic earnings per share (continuing)	8			37.0
Diluted earnings per share (continuing)	8			36.8
Basic earnings per share (continuing and discontinued)	8			46.6
Diluted earnings per share (continuing and discontinued)	8			46.3

Consolidated statement of comprehensive income

for the years ended 31 March

	Notes	2023 £m	2022 £m	2021 £m
Profit after tax from continuing operations		**2,714**	2,183	1,304
Profit after tax from discontinued operations		**5,083**	171	337
Other comprehensive income from continuing operations				
Items from continuing operations that will never be reclassified to profit or loss:				
Remeasurement (losses)/gains on pension assets and post-retirement benefit obligations	25	**(1,362)**	2,172	1,658
Net gains on equity instruments designated at fair value through other comprehensive income		**—**	12	46
Net gains/(losses) in respect of cash flow hedging of capital expenditure		**10**	(1)	(12)
Tax on items that will never be reclassified to profit or loss	7	**341**	(496)	(472)
Total items from continuing operations that will never be reclassified to profit or loss		**(1,011)**	1,687	1,220
Items from continuing operations that may be reclassified subsequently to profit or loss:				
Retranslation of net assets offset by net investment hedge		**883**	630	(1,347)
Exchange differences reclassified to the consolidated income statement on disposal	10,16	**(170)**	—	—
Net (losses)/gains in respect of cash flow hedges		**—**	(57)	67
Net (losses)/gains in respect of cost of hedging		**(16)**	1	20
Net (losses)/gains on investment in debt instruments measured at fair value through other comprehensive income		**(25)**	(11)	80
Share of other comprehensive income of associates, net of tax		**1**	1	1
Tax on items that may be reclassified subsequently to profit or loss	7	**11**	15	(8)
Total items from continuing operations that may be reclassified subsequently to profit or loss		**684**	579	(1,187)
Other comprehensive (loss)/income for the year, net of tax from continuing operations		**(327)**	2,266	33
Other comprehensive (loss)/income for the year, net of tax from discontinued operations	10	**(227)**	211	(216)
Other comprehensive (loss)/income for the year, net of tax		**(554)**	2,477	(183)
Total comprehensive income for the year from continuing operations		**2,387**	4,449	1,337
Total comprehensive income for the year from discontinued operations	10	**4,856**	382	121
Total comprehensive income for the year		**7,243**	4,831	1,458
Attributable to:				
Equity shareholders of the parent				
From continuing operations		**2,386**	4,447	1,338
From discontinued operations		**4,856**	382	121
		7,242	4,829	1,459
Non-controlling interests				
From continuing operations		**1**	2	(1)

Consolidated statement of changes in equity

for the years ended 31 March

	Share capital £m	Share premium account £m	Retained earnings £m	Other equity reserves[1] £m	Total shareholders' equity £m	Non-controlling interests £m	Total equity £m
At 31 March 2020	470	1,301	21,895	(3,895)	19,771	22	19,793
Profit for the year	—	—	1,640	—	1,640	1	1,641
Other comprehensive income/(loss) for the year	—	—	1,001	(1,182)	(181)	(2)	(183)
Total comprehensive income/(loss) for the year	—	—	2,641	(1,182)	1,459	(1)	1,458
Equity dividends	—	—	(1,413)	—	(1,413)	—	(1,413)
Scrip dividend-related share issue[2]	4	(5)	—	—	(1)	—	(1)
Issue of treasury shares	—	—	17	—	17	—	17
Purchase of own shares	—	—	(2)	—	(2)	—	(2)
Share-based payments	—	—	27	—	27	—	27
Tax on share-based payments	—	—	(2)	—	(2)	—	(2)
Cash flow hedges transferred to the statement of financial position, net of tax	—	—	—	(17)	(17)	—	(17)
At 1 April 2021	474	1,296	23,163	(5,094)	19,839	21	19,860
Profit for the year	—	—	2,353	—	2,353	1	2,354
Other comprehensive income for the year	—	—	1,871	605	2,476	1	2,477
Total comprehensive income for the year	—	—	4,224	605	4,829	2	4,831
Equity dividends	—	—	(922)	—	(922)	—	(922)
Scrip dividend-related share issue[2]	11	(12)	—	—	(1)	—	(1)
Issue of treasury shares	—	—	17	—	17	—	17
Transactions in own shares	—	16	(3)	—	13	—	13
Share-based payments	—	—	43	—	43	—	43
Tax on share-based payments	—	—	7	—	7	—	7
Transfer of accumulated gains and losses on sale of equity investments[3]	—	—	82	(82)	—	—	—
Cash flow hedges transferred to the statement of financial position, net of tax	—	—	—	8	8	—	8
At 1 April 2022	485	1,300	26,611	(4,563)	23,833	23	23,856
Profit for the year	—	—	7,797	—	7,797	—	7,797
Other comprehensive (loss)/income for the year	—	—	(1,253)	698	(555)	1	(554)
Total comprehensive income for the year	—	—	6,544	698	7,242	1	7,243
Equity dividends	—	—	(1,607)	—	(1,607)	—	(1,607)
Scrip dividend-related share issue[2]	3	(3)	—	—	—	—	—
Issue of treasury shares	—	—	16	—	16	—	16
Transactions in own shares	—	5	(4)	—	1	—	1
Share-based payments	—	—	48	—	48	—	48
Cash flow hedges transferred to the statement of financial position, net of tax	—	—	—	5	5	—	5
At 31 March 2023	**488**	**1,302**	**31,608**	**(3,860)**	**29,538**	**24**	**29,562**

1. For further details of other equity reserves, see note 28.
2. Included within the share premium account are costs associated with scrip dividends.
3. In the year ended 31 March 2022, the Group disposed of its equity instruments related to shares held as part of a portfolio of financial instruments which back some long-term employee liabilities. The equity instruments were previously measured at FVOCI and prior to the disposal the Group recognised a gain of £12 million. The accumulated gain of £82 million recognised in other comprehensive income was transferred to retained earnings on disposal.

Consolidated statement of financial position

as at 31 March

	Notes	2023 £m	2022 £m
Non-current assets			
Goodwill	11	**9,847**	9,532
Other intangible assets	12	**3,604**	3,272
Property, plant and equipment	13	**64,433**	57,532
Other non-current assets	14	**567**	303
Pension assets	25	**2,645**	3,885
Financial and other investments	15	**859**	830
Investments in joint ventures and associates	16	**1,300**	1,238
Derivative financial assets	17	**276**	305
Total non-current assets		**83,531**	76,897
Current assets			
Inventories and current intangible assets	18	**876**	511
Trade and other receivables	19	**3,883**	3,715
Current tax assets		**43**	106
Financial and other investments	15	**2,605**	3,145
Derivative financial assets	17	**153**	282
Cash and cash equivalents	20	**163**	204
Assets held for sale	10	**1,443**	10,000
Total current assets		**9,166**	17,963
Total assets		**92,697**	94,860
Current liabilities			
Borrowings	21	**(2,955)**	(12,121)
Derivative financial liabilities	17	**(222)**	(144)
Trade and other payables	22	**(5,068)**	(4,915)
Contract liabilities	23	**(252)**	(130)
Current tax liabilities		**(236)**	(32)
Provisions	26	**(288)**	(240)
Liabilities held for sale	10	**(109)**	(7,188)
Total current liabilities		**(9,130)**	(24,770)
Non-current liabilities			
Borrowings	21	**(40,030)**	(33,344)
Derivative financial liabilities	17	**(1,071)**	(869)
Other non-current liabilities	24	**(921)**	(805)
Contract liabilities	23	**(1,754)**	(1,342)
Deferred tax liabilities	7	**(7,181)**	(6,765)
Pensions and other post-retirement benefit obligations	25	**(694)**	(810)
Provisions	26	**(2,354)**	(2,299)
Total non-current liabilities		**(54,005)**	(46,234)
Total liabilities		**(63,135)**	(71,004)
Net assets		**29,562**	23,856
Equity			
Share capital	27	**488**	485
Share premium account		**1,302**	1,300
Retained earnings		**31,608**	26,611
Other equity reserves	28	**(3,860)**	(4,563)
Total shareholders' equity		**29,538**	23,833
Non-controlling interests		**24**	23
Total equity		**29,562**	23,856

The consolidated financial statements set out on pages 121 – 210 were approved by the Board of Directors on 17 May 2023 and were signed on its behalf by:

John Pettigrew Chief Executive
Andy Agg Chief Financial Officer

National Grid plc
Registered number: 4031152

Consolidated cash flow statement

for the years ended 31 March

	Notes	2023 £m	2022 £m	2021 £m
Cash flows from operating activities				
Total operating profit from continuing operations	2(b)	**4,879**	4,371	2,401
Adjustments for:				
Exceptional items and remeasurements	5	**(585)**	(558)	26
Other fair value movements		**21**	(65)	(22)
Depreciation, amortisation and impairment		**1,984**	1,830	1,485
Share-based payments		**48**	38	23
Changes in working capital		**286**	361	279
Changes in provisions		**23**	140	(167)
Changes in pensions and other post-retirement benefit obligations		**(46)**	(76)	(16)
Cash flows relating to exceptional items		**(178)**	(253)	(42)
Cash generated from operations – continuing operations		**6,432**	5,788	3,967
Tax paid		**(89)**	(298)	(91)
Net cash inflow from operating activities – continuing operations		**6,343**	5,490	3,876
Net cash inflow from operating activities – discontinued operations		**555**	782	585
Cash flows from investing activities				
Purchases of intangible assets		**(567)**	(446)	(399)
Purchases of property, plant and equipment		**(6,325)**	(5,098)	(4,209)
Disposals of property, plant and equipment		**87**	26	7
Investments in joint ventures and associates		**(443)**	(265)	(81)
Dividends received from joint ventures, associates and other investments		**190**	166	80
Acquisition of National Grid Electricity Distribution[1]	37	**—**	(7,837)	—
Disposal of interest in the UK Gas Transmission business[2]	10	**4,027**	—	—
Disposal of interest in The Narragansett Electric Company[2]	10	**2,968**	—	—
Disposal of interest in Millennium Pipeline Company LLC	16	**497**	—	—
Disposal of interest in St William Homes LLP	16	**—**	413	—
Disposal of financial and other investments		**116**	215	66
Acquisition of financial investments		**(95)**	(197)	(99)
Contributions to National Grid Renewables and Emerald Energy Venture LLC		**(19)**	(16)	(26)
Net movements in short-term financial investments		**586**	(781)	(438)
Interest received		**65**	40	16
Cash inflows on derivatives	29(c)	**—**	17	225
Cash outflows on derivatives	29(c)	**(362)**	(122)	(81)
Cash flows relating to exceptional items		**79**	—	—
Net cash flow from/(used in) investing activities – continuing operations		**804**	(13,885)	(4,939)
Net cash flow used in investing activities – discontinued operations		**(564)**	(125)	(177)
Cash flows from financing activities				
Proceeds from issue of treasury shares		**16**	33	16
Transactions in own shares		**1**	(3)	(2)
Proceeds received from loans	29(c)	**11,908**	12,347	5,150
Repayment of loans	29(c)	**(15,260)**	(1,261)	(1,654)
Payments of lease liabilities	29(c)	**(155)**	(117)	(107)
Net movements in short-term borrowings	29(c)	**(511)**	(11)	(619)
Cash inflows on derivatives	29(c)	**190**	20	17
Cash outflows on derivatives	29(c)	**(118)**	(114)	(183)
Interest paid	29(c)	**(1,430)**	(1,053)	(753)
Dividends paid to shareholders	9	**(1,607)**	(922)	(1,413)
Net cash flow (used in)/from financing activities – continuing operations		**(6,966)**	8,919	452
Net cash flow (used in)/from financing activities – discontinued operations		**(207)**	(1,150)	298
Net (decrease)/increase in cash and cash equivalents	29(b)	**(35)**	31	95
Reclassification to held for sale	10,29(b)	**9**	(11)	(4)
Exchange movements	29(b)	**7**	5	(7)
Cash and cash equivalents at start of year		**182**	157	73
Cash and cash equivalents at end of year[3]	20	**163**	182	157

1. Balance consists of cash consideration paid and cash acquired from National Grid Electricity Distribution (NGED, formerly known as Western Power Distribution).
2. The balance for the year ended 31 March 2023 consists of cash proceeds received, net of cash disposed.
3. Cash and cash equivalents at end of year are shown net of the Group's bank overdraft as at 31 March 2023 of £nil (2022: £22 million; 2021: £nil).

Notes to the consolidated financial statements

1. Basis of preparation and recent accounting developments

Accounting policies describe our approach to recognising and measuring transactions and balances in the year. The accounting policies applicable across the financial statements are shown below, whereas accounting policies that are specific to a component of the financial statements have been incorporated into the relevant note.

This section also shows areas of judgement and key sources of estimation uncertainty in these financial statements. In addition, we have summarised new International Accounting Standards Board (IASB) and UK endorsed accounting standards, amendments and interpretations and whether these are effective for this year end or in later years, explaining how significant changes are expected to affect our reported results.

National Grid's principal activities involve the transmission and distribution of electricity in Great Britain and of electricity and gas in northeastern US. The Company is a public limited liability company incorporated and domiciled in England and Wales, with its registered office at 1–3 Strand, London, WC2N 5EH.

The Company, National Grid plc, which is the ultimate parent of the Group, has its primary listing on the London Stock Exchange and is also quoted on the New York Stock Exchange.

These consolidated financial statements were approved for issue by the Board on 17 May 2023.

These consolidated financial statements have been prepared in accordance with International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) and related interpretations as issued by the IASB and IFRS as adopted by the UK. They are prepared on the basis of all IFRS accounting standards and interpretations that are mandatory for the period ended 31 March 2023 and in accordance with the Companies Act 2006. The comparative financial information has also been prepared on this basis.

The consolidated financial statements have been prepared on a historical cost basis, except for the recording of pension assets and liabilities, the revaluation of derivative financial instruments and certain commodity contracts and certain financial assets and liabilities measured at fair value.

These consolidated financial statements are presented in pounds sterling, which is also the functional currency of the Company.

The notes to the financial statements have been prepared on a continuing basis unless otherwise stated.

Our income statement and segmental analysis separately identify financial results before and after exceptional items and remeasurements. We continue to use a columnar presentation as we consider it improves the clarity of the presentation, is consistent with the way that financial performance is measured by management and reported to the Board and the Executive Committee, and assists users of the financial statements to understand the results. The inclusion of total profit for the period from continuing operations before exceptional items and remeasurements is used to derive part of the incentive target set annually for remunerating certain Executive Directors and accordingly we believe it is important for users of the financial statements to understand how this compares with our results on a statutory basis and period on period.

A. Going concern

As part of the Directors' consideration of the appropriateness of adopting the going concern basis of accounting in preparing these financial statements, the Directors have assessed the principal risks discussed on pages 20 – 24 alongside potential downside business cash flow scenarios impacting the Group's operations. The Directors specifically considered both a base case and reasonable worst-case scenario for business cash flows. The assessment is prepared on the conservative assumption that the Group has no access to the debt capital markets.

The main cash flow impacts identified in the reasonable worst-case scenario are:

- the timing of the sale of assets classified as held for sale (see note 10);
- additional potential working capital requirements in response to energy price increases driven by an under-recovery of higher Balancing Services Use of System (BSUoS) energy costs in UK Electricity System Operator;
- adverse impacts of inflation on our capital expenditure programme;
- adverse impact from timing across the Group (i.e. a net under-recovery of allowed revenues or reductions in over-collections);
- a significant reduction in cash collections driven by lower customer demand and increased bad debt in our US businesses and potential supplier defaults in our UK businesses;
- higher operating and financing costs than expected, or non-delivery of planned efficiencies across the Group; and
- the potential impact of further significant storms in the US.

As part of their analysis, the Board also considered the following potential levers at their discretion to improve the position identified by the analysis if the debt capital markets are not accessible:

- the payment of dividends to shareholders;
- significant changes in the phasing of the Group's capital expenditure programme, with elements of non-essential works and programmes delayed; and
- a number of further reductions in operating expenditure across the Group.

Having considered the reasonable worst-case scenario and the further levers at the Board's discretion, the Group continues to have headroom against the Group's committed facilities identified in note 33 to the financial statements.

In addition to the above, the ability to raise new and extend existing financing was separately included in the analysis, and the Directors noted over £7.0 billion of new long-term senior debt issued in the period from 1 April 2022 to 31 March 2023 as evidence of the Group's ability to continue to have access to the debt capital markets if needed.

Based on the above, the Directors have concluded the Group is well placed to manage its financing and other business risks satisfactorily and have a reasonable expectation that the Group will have adequate resources to continue in operation for at least 12 months from the signing date of these consolidated financial statements. They therefore consider it appropriate to adopt the going concern basis of accounting in preparing the financial statements.

1. Basis of preparation and recent accounting developments continued

B. Basis of consolidation

The consolidated financial statements incorporate the results, assets and liabilities of the Company and its subsidiaries, together with a share of the results, assets and liabilities of joint operations.

A subsidiary is defined as an entity controlled by the Group. Control is achieved where the Group is exposed to, or has the rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

The Group accounts for joint ventures and associates using the equity method of accounting, where the investment is carried at cost plus post-acquisition changes in the share of net assets of the joint venture or associate, less any provision for impairment. Losses in excess of the consolidated interest in joint ventures and associates are not recognised, except where the Company or its subsidiaries have made a commitment to make good those losses.

Where necessary, adjustments are made to bring the accounting policies used in the individual financial statements of the Company, subsidiaries, joint operations, joint ventures and associates into line with those used by the Group in its consolidated financial statements under IFRS. Intercompany transactions are eliminated.

The results of subsidiaries, joint operations, joint ventures and associates acquired or disposed of during the year are included in the consolidated income statement from the effective date of acquisition or up to the effective date of disposal, as appropriate.

Acquisitions are accounted for using the acquisition method, where the purchase price is allocated to the identifiable assets acquired and liabilities assumed on a fair value basis and the remainder recognised as goodwill.

C. Foreign currencies

Transactions in currencies other than the functional currency of the Company or subsidiary concerned are recorded at the rates of exchange prevailing on the date of the transactions. At each reporting date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at closing exchange rates. Non-monetary assets are not retranslated unless they are carried at fair value.

Gains and losses arising on the retranslation of monetary assets and liabilities are included in the income statement, except where the application of hedge accounting requires inclusion in other comprehensive income (see note 32(e)).

On consolidation, the assets and liabilities of operations that have a functional currency different from the Company's functional currency of pounds sterling, principally our US operations that have a functional currency of US dollars, are translated at exchange rates prevailing at the reporting date. Income and expense items are translated at the average exchange rates for the period where these do not differ materially from rates at the date of the transaction. Exchange differences arising are recognised in other comprehensive income and transferred to the consolidated translation reserve within other equity reserves (see note 28).

D. Disposal of The Narragansett Electric Company

As described further in note 10, on 17 March 2021, the Group signed an agreement to sell 100% of the share capital of a wholly owned subsidiary, The Narragansett Electric Company (NECO), to PPL Rhode Island Holdings, LLC. On 25 May 2022, the Group completed the disposal for cash consideration of £3.1 billion, recognising a post-tax gain on disposal of £280 million which has been classified as exceptional (see note 10). NECO did not meet the criteria for classification as a discontinued operation and therefore its results have not been separately disclosed on the face of the income statement, and are instead included within the results from continuing operations.

E. Disposal of the UK Gas Transmission business

As described further in note 10, on 27 March 2022, the Group entered into a sale and purchase agreement to dispose of a 100% controlling stake in the UK Gas Transmission business. The disposal completed on 31 January 2023 for cash consideration of £4.0 billion and a 40% interest in a newly incorporated UK limited company, GasT TopCo Limited, as further described below. Proceeds received have been classified in the consolidated cash flow statement within continuing operations. As a result, the Group derecognised all of the assets and liabilities of the UK Gas Transmission business and recognised the 40% interest acquired in GasT TopCo Limited. The 40% interest is classified as an investment in an associate on the basis that the Group has a significant influence over the business. The Group has the ability to appoint two out of the five Directors to the Board of GasT Topco Limited.

On 27 March 2022, the Group also entered into a Further Acquisition Agreement (FAA) over its 40% interest in GasT TopCo Limited. The FAA became binding following the settlement of the Acquisition Agreement and is exercisable in the period between 1 May and 31 July 2023. The window can further be deferred at the Group's discretion by three months. Taking into consideration the timing of the FAA exercise window, the Group has classified its interest in GasT TopCo Limited as held for sale with effect from 31 January 2023 and has not equity accounted for its share of the associate's results. The disposal group comprises our equity investment in GasT TopCo Limited and the FAA derivative. Refer to note 10 for further details.

The results of the UK Gas Transmission business were treated as a discontinued operation during the year ended 31 March 2022, with comparatives restated accordingly. Remeasurements in relation to the FAA derivative were also recorded within discontinued operations for the year ended 31 March 2023. The classification impacts the consolidated income statement, the consolidated statement of comprehensive income and consolidated cash flow statement, as well as earnings per share (EPS) split between continuing and discontinued operations.

1. Basis of preparation and recent accounting developments continued

F. Areas of judgement and key sources of estimation uncertainty

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities, and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from these estimates. Information about such judgements and estimations is in the notes to the financial statements, and the key areas are summarised below.

Areas of judgement that have the most significant effect on the amounts recognised in the financial statements are as follows:

- categorisation of certain items as exceptional items or remeasurements and the definition of adjusted earnings (see notes 5 and 8). In applying the Group's exceptional items framework, we have considered a number of key matters, as detailed in note 5;
- the judgement that it is appropriate to classify our 40% equity investment in GasT TopCo Limited, together with the FAA derivative, as held for sale with effect from 31 January 2023, as detailed in note 10;
- in performing the NGED goodwill and indefinite-lived licence intangible assets impairment assessment, judgement has been applied over the forecast cash flow duration used in the value-in-use calculations (see note 11); and
- the judgement that, notwithstanding legislation enacted and targets committing the states of New York and Massachusetts to achieving net zero greenhouse gas emissions by 2050, these do not trigger a reassessment of the remaining useful economic lives (UELs) of our US gas network assets (see key sources of estimation uncertainty below and note 13).

Key sources of estimation uncertainty that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are as follows:

- the value attributable to GasT TopCo Limited following disposal of our controlling stake in the UK Gas Transmission business and in determining the fair value of the written option over the Group's 40% equity interest (see note 10);
- the valuation of liabilities for pensions and other post-retirement benefits (see note 25);
- the cash flows and real discount rates applied in determining the environmental provisions, in particular relating to three US Superfund sites (see note 26); and
- the estimates made regarding the UELs of our gas network assets due to the length over which they are being depreciated, the potential for new and evolving technologies over that period, and the range of potential pathways for meeting net zero targets (see note 13 for details and sensitivity analysis).

In performing our impairment assessment of goodwill and indefinite-lived licence intangible assets, we have sensitised our forecasts to factor in adjustments to key inputs to each model (see note 11).

In order to illustrate the impact that changes in assumptions for the valuation of pension assets and liabilities and cash flows for environmental provisions could have on our results and financial position, we have included sensitivity analysis in note 35.

G. Impact of climate change and the transition to net zero – areas of judgement and key sources of estimation uncertainty

In preparing these financial statements for the year ended 31 March 2023, management has taken into account the Group's commitments regarding its transition to net zero and the impact of climate change. The Group has a published climate transition plan which sets out its targets to achieve this commitment by 2050, in line with the Paris Agreement. Management has also identified a number of significant climate-related risks and opportunities, as set out within the Task Force on Climate-related Financial Disclosures (TCFD) on pages 38 – 51. Changes to the Group's commitments and the impact of climate change may have a material impact on the currently reported amounts of the Group's assets and liabilities and on similar assets and liabilities that may be recognised in future reporting periods, as set out above with respect to the judgement and key source of estimation uncertainty regarding the UELs of our US gas network assets, and as further detailed below.

Repairs to property, plant and equipment

The Group's network assets recorded within property, plant and equipment (PP&E) are at risk of physical impacts from extreme weather events such as major storms which may be accentuated by increased frequency of weather incidents and changing long-term climate trends, thereby leading to asset damage. As set out in the Financial review on pages 53 – 65, major storm costs, net of deductibles and disallowances, incurred by the Group are recoverable as revenue in future periods under our rate plans but the associated repair costs are expensed as incurred as other operating costs under IFRS.

Impairment of property, plant and equipment and goodwill

Included within the Group's PP&E (see note 13) are £333 million of oil- and gas-fired electricity generation units with approximately 3,800 MW of electric generation capacity located in Long Island, New York. Whilst the Group retains ownership of these assets, it sells all of the capacity, energy in response to dispatch requests, and any related ancillary services provided by the generating facilities to the Long Island Power Authority (LIPA) via a Power Supply Agreement running until 2028.

The maximum UEL for these units ends in 2040, which aligns to the target set by the state of New York to achieve decarbonised power generation by 2040. However, there is a risk that the UEL of certain, or all, of the units may be shortened, depending on the progress of decarbonisation activities in Long Island. The Group believes there are no material accounting judgements in respect of the generation assets and the UELs have not been accelerated in the year.

The assets related to the Group's liquefied natural gas (LNG) storage facility have a maximum UEL to 2045, which is in line with the current commercial contracts. Accordingly, the Group believes there are no material accounting judgements in respect of the UELs of the storage assets as of 31 March 2023.

The net zero pathway may also impact our US gas networks which in turn may affect the recoverable amount of our New York and New England cash-generating units (CGUs). In assessing the recoverability of our CGUs (see note 11), we calculate the value-in-use based on projections that incorporate our best estimates of future cash flows and assumptions pertaining to the net zero plans of the jurisdictions that we operate in. In respect of our New York and New England CGUs, our forecast cash flow duration used in our impairment testing is five years and we continue to have sufficient headroom. Accordingly, the impacts of certain variables that will play out in the medium to long term as a result of the anticipated transition to decarbonised power generation do not currently affect the carrying value of our New York and New England CGUs.

1. Basis of preparation and recent accounting developments continued

G. Impact of climate change and the transition to net zero – areas of judgement and key sources of estimation uncertainty continued

Decommissioning provisions

Provisions to decommission significant portions of our regulated transmission and distribution assets are not recognised where no legal obligations exist, and a realistic alternative exists to incurring costs to decommission assets at the end of their life. Included within the Group's decommissioning provisions as at 31 March 2023 (see note 26) is £57 million relating to legal requirements to remove asbestos upon major renovation or demolition of our oil- and gas-fired electricity generation structures and facilities located in Long Island, New York. As noted above, the progress of decarbonisation activities in Long Island may bring forward the decommissioning of these assets, thereby increasing the present value of associated decommissioning provisions. Currently, the expected timing of decommissioning expenditures has not materially been brought forward but management will continue to review the facts and circumstances.

Sensitivity to commodity contract derivatives

The Group has contracts associated with the forward purchase of gas and enters into derivative financial instruments linked to commodity prices, including gas options and swaps which are used to manage market price volatility (see note 17). As at 31 March 2023, the Group's gas commodity contract derivatives are primarily short-term and accordingly we do not anticipate a risk as a result of the transition to net zero.

H. Accounting policy choices

IFRS provides certain options available within accounting standards. Choices we have made, and continue to make, include the following:

- Presentational formats: we use the nature of expense method for our income statement and aggregate our statement of financial position to net assets and total equity. In the income statement, we present subtotals of total operating profit, profit before tax and profit after tax from continuing operations, together with additional subtotals excluding exceptional items and remeasurements as a result of the three-columnar presentation described earlier. Exceptional items and remeasurements are presented in a separate column on the face of the income statement.
- Financial instruments: we normally opt to apply hedge accounting in most circumstances where this is permitted (see note 32(e)).
- Gains and losses arising from the sale of a subsidiary: in accounting for the gain on sale of the UK Gas Transmission business, we have considered the conflicts in guidance between IAS 28 'Investments in Associates and Joint Ventures' and IFRS 10 'Consolidated Financial Statements'. We have elected to apply the full gain recognition approach in accordance with IFRS 10.

I. New IFRS accounting standards and interpretations effective for the year ended 31 March 2023

The Group adopted the following amendments to standards which have had no material impact on the Group's results or financial statement disclosures:

- amendments to IFRS 3 'Business Combinations';
- amendments to IAS 16 'Property, Plant and Equipment';
- amendments to IAS 37 'Provisions, Contingent Liabilities and Contingent Assets'; and
- annual improvements to IFRS standards 2018–2020.

J. New IFRS accounting standards and interpretations not yet adopted

The following new accounting standards and amendments to existing standards have been issued but are not yet effective or have not yet been endorsed by the UK:

- IFRS 17 'Insurance Contracts';
- amendments to IAS 12 'Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction';
- amendments to IAS 1 'Presentation of Financial Statements' on classification of liabilities as current or non-current;
- amendments to IAS 8 'Accounting Policies, Changes in Accounting Estimates and Errors'; and
- amendments to IAS 1 and IFRS Practice Statement 2 – making materiality judgements.

Effective dates will be subject to the UK endorsement process.

The Group is currently assessing the impact of the above standards, but they are not expected to have a material impact.

The Group has not adopted any other standard, amendment or interpretation that has been issued but is not yet effective.

2. Segmental analysis

This note sets out the financial performance for the year split into the different parts of the business (operating segments). The performance of these operating segments is monitored and managed on a day-to-day basis. Revenue and the results of the business are analysed by operating segment, based on the information the Board of Directors uses internally for the purposes of evaluating the performance of each operating segment and determining resource allocation between them. The Board is National Grid's chief operating decision maker (as defined by IFRS 8 'Operating Segments') and assesses the profitability of operations principally on the basis of a profit measure that excludes certain income and expenses. We call that measure 'adjusted profit'. Adjusted profit excludes exceptional items and remeasurements (as defined in note 5) and is used by management to monitor financial performance as it is considered that it aids the comparability of our reported financial performance from year to year. As a matter of course, the Board also considers profitability by segment, excluding the effects of timing and major storms. However, the measure of profit disclosed in this note is operating profit before exceptional items and remeasurements, as this is the measure that is most consistent with the IFRS results reported within these financial statements.

In the year ended 31 March 2023, the National Grid Ventures (NGV) operating segment met the quantitative thresholds set out in IFRS 8 to be identified as the Group's sixth separate reportable segment. Accordingly, the Group's operating segments have been modified and the data relating to previous periods has been restated to reflect this change. The results of our six principal businesses are reported to the Board of Directors and are accordingly treated as reportable operating segments. All other operating segments are reported to the Board of Directors on an aggregated basis. The following table describes the main activities for each reportable operating segment:

UK Electricity Transmission	The high-voltage electricity transmission networks in England and Wales.
UK Electricity Distribution	The electricity distribution networks of NGED in the East Midlands, West Midlands and South West of England and South Wales.
UK Electricity System Operator	The Great Britain system operator. As announced in April 2022, the entirety of the UK Electricity System Operator is expected to transfer out of the Group to become part an independent system operator public body, following the Future System Operator (FSO) consultation. The FSO is subject to legislative approval and accordingly the held for sale criteria have not been met as at 31 March 2023.
New England	Gas distribution networks, electricity distribution networks and high-voltage electricity transmission networks in New England.
New York	Gas distribution networks, electricity distribution networks and high-voltage electricity transmission networks in New York.
National Grid Ventures	Comprises all commercial operations in LNG at the Isle of Grain in the UK, our electricity generation business in the US, our electricity interconnectors in the UK and our investment in National Grid Renewables Development LLC, our renewables business in the US. NGV operates outside our regulated core business.

Other activities that do not form part of any of the segments in the above table primarily relate to our UK property business together with insurance and corporate activities in the UK and US and the Group's investments in technology and innovation companies through National Grid Partners.

(a) Revenue

Revenue primarily represents the sales value derived from the generation, transmission and distribution of energy, together with the sales value derived from the provision of other services to customers. Refer to note 3 for further details.

Sales between operating segments are priced considering the regulatory and legal requirements to which the businesses are subject. The analysis of revenue by geographical area is on the basis of destination. There are no material sales between the UK and US geographical areas.

	2023			2022[1]			2021[1]		
	Total sales £m	**Sales between segments £m**	**Sales to third parties £m**	Total sales £m	Sales between segments £m	Sales to third parties £m	Total sales £m	Sales between segments £m	Sales to third parties £m
Operating segments – continuing operations:									
UK Electricity Transmission	**1,987**	**(41)**	**1,946**	2,035	(7)	2,028	1,974	(10)	1,964
UK Electricity Distribution	**2,045**	**(12)**	**2,033**	1,482	(14)	1,468	—	—	—
UK Electricity System Operator	**4,690**	**(31)**	**4,659**	3,455	(18)	3,437	2,018	—	2,018
New England	**4,427**	**—**	**4,427**	4,550	—	4,550	4,214	—	4,214
New York	**6,994**	**—**	**6,994**	5,561	—	5,561	4,605	—	4,605
National Grid Ventures	**1,341**	**(58)**	**1,283**	1,024	—	1,024	786	—	786
Other	**317**	**—**	**317**	192	—	192	78	—	78
Total revenue before exceptional items and remeasurements	**21,801**	**(142)**	**21,659**	18,299	(39)	18,260	13,675	(10)	13,665
Exceptional items and remeasurements[2]	**—**	**—**	**—**	189	—	189	—	—	—
Total revenue from continuing operations	**21,801**	**(142)**	**21,659**	18,488	(39)	18,449	13,675	(10)	13,665
Split by geographical areas – continuing operations:									
UK			**9,611**			7,803			4,368
US			**12,048**			10,646			9,297
Total revenue from continuing operations			**21,659**			18,449			13,665

1. Comparative amounts have been re-presented to reflect NGV as a separate operating segment.
2. In connection with the disposal of St William Homes LLP in the year ended 31 March 2022 the Group released deferred income within Other of £189 million related to deferred profits from previous property sales (see note 5).

2. Segmental analysis continued

(b) Operating profit

A reconciliation of the operating segments' measure of profit to profit before tax from continuing operations is provided below. Further details of the exceptional items and remeasurements are provided in note 5.

	Before exceptional items and remeasurements			Exceptional items and remeasurements			After exceptional items and remeasurements		
	2023 £m	2022[1] £m	2021[1] £m	2023 £m	2022[1] £m	2021[1] £m	2023 £m	2022[1] £m	2021[1] £m
Operating segments – continuing operations:									
UK Electricity Transmission	**995**	1,067	1,094	**(2)**	(12)	(14)	**993**	1,055	1,080
UK Electricity Distribution	**1,091**	909	—	**(22)**	—	—	**1,069**	909	—
UK Electricity System Operator	**238**	7	(60)	**(1)**	(2)	7	**237**	5	(53)
New England	**708**	743	611	**424**	21	3	**1,132**	764	614
New York	**741**	780	665	**(200)**	315	30	**541**	1,095	695
National Grid Ventures	**490**	286	185	**467**	(3)	(4)	**957**	283	181
Other	**31**	21	(68)	**(81)**	239	(48)	**(50)**	260	(116)
Total operating profit from continuing operations	**4,294**	3,813	2,427	**585**	558	(26)	**4,879**	4,371	2,401
Split by geographical area – continuing operations:									
UK	**2,825**	2,234	1,113	**26**	224	(57)	**2,851**	2,458	1,056
US	**1,469**	1,579	1,314	**559**	334	31	**2,028**	1,913	1,345
Total operating profit from continuing operations	**4,294**	3,813	2,427	**585**	558	(26)	**4,879**	4,371	2,401

1. Comparative amounts have been re-presented to reflect NGV as a separate operating segment.

	Before exceptional items and remeasurements			Exceptional items and remeasurements			After exceptional items and remeasurements		
	2023 £m	2022 £m	2021 £m	2023 £m	2022 £m	2021 £m	2023 £m	2022 £m	2021 £m
Reconciliation to profit before tax:									
Operating profit from continuing operations	**4,294**	3,813	2,427	**585**	558	(26)	**4,879**	4,371	2,401
Share of post-tax results of joint ventures and associates	**190**	148	66	**(19)**	(56)	(8)	**171**	92	58
Finance income	**166**	65	35	**(28)**	(15)	23	**138**	50	58
Finance costs	**(1,680)**	(1,146)	(900)	**82**	74	47	**(1,598)**	(1,072)	(853)
Profit before tax from continuing operations	**2,970**	2,880	1,628	**620**	561	36	**3,590**	3,441	1,664

(c) Capital expenditure

Capital expenditure represents additions to property, plant and equipment and non-current intangibles but excludes additional investments in and loans to joint ventures and associates.

	Net book value of property, plant and equipment and other intangible assets			Capital expenditure			Depreciation, amortisation and impairment		
	2023 £m	2022[1] £m	2021[1] £m	2023 £m	2022[1] £m	2021[1] £m	2023 £m	2022[1] £m	2021[1] £m
Operating segments:									
UK Electricity Transmission	**15,483**	14,678	14,000	**1,303**	1,195	984	**(484)**	(508)	(460)
UK Electricity Distribution	**13,462**	12,522	—	**1,220**	899	—	**(223)**	(158)	—
UK Electricity System Operator	**411**	404	379	**108**	108	88	**(101)**	(83)	(47)
New England	**13,406**	11,485	10,165	**1,624**	1,561	1,437	**(393)**	(364)	(389)
New York	**21,730**	18,676	16,467	**2,454**	1,960	1,738	**(620)**	(537)	(453)
National Grid Ventures	**3,507**	3,009	2,693	**709**	452	451	**(149)**	(156)	(116)
Other	**38**	30	57	**13**	10	29	**(14)**	(24)	(20)
Total	**68,037**	60,804	43,761	**7,431**	6,185	4,727	**(1,984)**	(1,830)	(1,485)
Split by geographical area – continuing operations:									
UK	**32,343**	30,131	16,627	**3,259**	2,546	1,504	**(921)**	(879)	(596)
US	**35,694**	30,673	27,134	**4,172**	3,639	3,223	**(1,063)**	(951)	(889)
Total	**68,037**	60,804	43,761	**7,431**	6,185	4,727	**(1,984)**	(1,830)	(1,485)
Asset type:									
Property, plant and equipment	**64,433**	57,532	42,424	**6,853**	5,714	4,335	**(1,700)**	(1,544)	(1,317)
Non-current intangible assets	**3,604**	3,272	1,337	**578**	471	392	**(284)**	(286)	(168)
Total	**68,037**	60,804	43,761	**7,431**	6,185	4,727	**(1,984)**	(1,830)	(1,485)

1. Comparative amounts have been re-presented to reflect NGV as a separate operating segment.

3. Revenue

Revenue arises in the course of ordinary activities and principally comprises:

- transmission services;
- distribution services; and
- generation services.

Transmission services, distribution services and certain other services (excluding rental income) fall within the scope of IFRS 15 'Revenue from Contracts with Customers', whereas generation services (which solely relate to the contract with LIPA in the US) are accounted for under IFRS 16 'Leases' as rental income, also presented within revenue. Revenue is recognised to reflect the transfer of goods or services to customers at an amount that reflects the consideration to which the Group expects to be entitled to in exchange for those goods or services and excludes amounts collected on behalf of third parties and value added tax. The Group recognises revenue when it transfers control over a product or service to a customer.

Revenue in respect of regulated activities is determined by regulatory agreements that set the price to be charged for services in a given period based on pre-determined allowed revenues. Variances in service usage can result in actual revenue collected exceeding (over-recoveries) or falling short (under-recoveries) of allowed revenues. Where regulatory agreements allow the recovery of under-recoveries or require the return of over-recoveries, the allowed revenue for future periods is typically adjusted. In these instances, no assets or liabilities are recognised for under- or over-recoveries respectively, because the adjustment relates to future customers and services that have not yet been delivered.

Revenue in respect of non-regulated activities primarily relates to the sale of capacity on our interconnectors, which is determined at auctions. Capacity is sold in either day, month, quarter or year-ahead tranches. The price charged is determined by market fundamentals rather than regulatory agreement. The interconnectors are subject to indirect regulation with regard to the levels of returns they are allowed to earn. Where amounts fall below this range they receive top-up revenues and where amounts exceed this range they must pass back the excess. In these instances, assets or liabilities are recognised for the top-up or pass-back respectively.

Below, we include a description of principal activities, by reportable segment, from which the Group generates its revenue. For more detailed information about our segments, see note 2.

(a) UK Electricity Transmission

The UK Electricity Transmission segment principally generates revenue by providing electricity transmission services in England and Wales. Our business operates as a monopoly regulated by Ofgem, which has established price control mechanisms that set the amount of annual allowed returns our business can earn (along with the Scottish and Offshore transmission operators amongst others).

The transmission of electricity encompasses the following principal services:

- the supply of high-voltage electricity – revenue is recognised based on usage. Our performance obligation is satisfied over time as our customers make use of our network. We bill monthly in arrears and our payment terms are up to 60 days. Price is determined prior to our financial year end with reference to the regulated allowed returns and estimated annual volumes; and
- construction work (principally for connections) – revenue is recognised over time, as we provide access to our network. Customers can either pay over the useful life of the connection or upfront. Where the customer pays upfront, revenues are deferred as a contract liability and released over the life of the asset.

For other construction where there is no consideration for any future services, for example diversions, revenues are recognised as the construction work is completed.

(b) UK Electricity Distribution

The UK Electricity Distribution segment principally generates revenue by providing electricity distribution services in the Midlands and South West of England and South Wales. Similar to UK Electricity Transmission, UK Electricity Distribution operates as a monopoly in the jurisdictions that it operates in and is regulated by Ofgem.

The distribution of electricity encompasses the following principal services:

- electricity distribution – revenue is recognised based on usage by customers (over time), based upon volumes and price. The price control mechanism that determines our annual allowances is similar to UK Electricity Transmission. Revenues are billed monthly and payment terms are typically within 14 days; and
- construction work (principally for connections) – revenue is recognised over time as we provide access to our network. Where the customer pays upfront, revenues are deferred as a contract liability and released over the life of the asset.

For other construction where there is no consideration for any future services, revenues are recognised as the construction is completed.

(c) UK Electricity System Operator

The UK Electricity System Operator earns revenue for balancing supply and demand of electricity on Great Britain's electricity transmission system, where it acts as principal. Balancing services are regulated by Ofgem and revenue, which is payable by generators and suppliers of electricity, is recognised as the service is provided.

The UK Electricity System Operator also collects revenues on behalf of transmission operators, principally National Grid Electricity Transmission plc and the Scottish and Offshore transmission operators, from users (electricity suppliers) who connect to or use the transmission system. As the UK Electricity System Operator acts as an agent in this capacity, it records transmission network revenues net of payments to transmission operators.

(d) New England

The New England segment principally generates revenue by providing electricity and gas supply and distribution services and high-voltage electricity transmission services in New England. Supply and distribution services are regulated by the Massachusetts Department of Public Utilities (MADPU) and transmission services are regulated by the Federal Energy Regulatory Commission (FERC), both of whom regulate the rates that can be charged to customers.

3. Revenue continued

(d) New England continued

The supply and distribution of electricity and gas and the provision of electricity transmission facilities encompasses the following principal services:

- electricity and gas supply and distribution and electricity transmission – revenue is recognised based on usage by customers (over time). Revenues are billed monthly and payment terms are 30 days; and
- construction work (principally for connections) – revenue is recognised over time as we provide access to our network. Where the customer pays upfront, revenues are deferred as a contract liability or customer contributions (where they relate to government entities) and released over the life of the connection.

(e) New York

The New York segment principally generates revenue by providing electricity and gas supply and distribution services and high-voltage electricity transmission services in New York. Supply and distribution services are regulated by the New York Public Service Commission (NYPSC) and transmission services are regulated by the FERC, both of which regulate the rates that can be charged to customers.

The supply and distribution of electricity and gas and the provision of electricity transmission facilities encompasses the following principal services:

- electricity and gas supply and distribution and electricity transmission – revenue is recognised based on usage by customers (over time). Revenues are billed monthly and payment terms are 30 days; and
- construction work (principally for connections) – revenue is recognised over time as we provide access to our network. Where the customer pays upfront, revenues are deferred as a contract liability or customer contributions (where they relate to government entities) and released over the life of the connection.

(f) National Grid Ventures

National Grid Ventures generates revenue from electricity interconnectors, LNG at the Isle of Grain, National Grid Renewables and rental income.

The Group recognises revenue from transmission services through interconnectors and LNG importation at the Isle of Grain by means of customers' use of capacity and volumes. Revenue is recognised over time and is billed monthly. Payment terms are up to 60 days.

Electricity generation revenue is earned from the provision of energy services and supply capacity to produce energy for the use of customers of LIPA through a power supply agreement, where LIPA receives all of the energy and capacity from the asset until at least 2028. The arrangement is treated as an operating lease within the scope of the leasing standard where we act as lessor, with rental income being recorded as other revenue, which forms part of total revenue. Lease payments (capacity payments) are recognised on a straight-line basis and variable lease payments are recognised as the energy is generated.

Other revenue in the scope of IFRS 15 principally includes sales of renewables projects from National Grid Renewables to Emerald Energy Venture LLC (Emerald), which is jointly controlled by National Grid and Washington State Investment Board (WSIB) (see note 16). National Grid Renewables develops wind and solar generation assets in the US, whilst Emerald has a right of first refusal to buy, build and operate those assets. Revenue is recognised as it is earned.

Other revenue, recognised in accordance with standards other than IFRS 15, primarily comprises adjustments in respect of the interconnector cap and floor regime constructed by Ofgem for certain wholly owned interconnector subsidiaries. Where an interconnector expects to exceed its total five-year cap, a provision and reduction in revenue is recognised in the current reporting period (see note 26). Where an interconnector does not expect to reach its five-year floor, either an asset will be recognised where a future inflow of economic benefits is considered virtually certain, or a contingent asset will be disclosed where the future inflow is concluded to be probable.

(g) Other

Revenue in Other relates to our UK commercial property business and insurance. Revenue is predominantly recognised in accordance with standards other than IFRS 15 and comprises property sales by our UK commercial property business (including sales to our 50% share in the St William joint venture which was disposed of in the prior year). Property sales are recorded when the sale is legally completed.

(h) Disaggregation of revenue

In the following tables, revenue is disaggregated by primary geographical market and major service lines. The table below reconciles disaggregated revenue with the Group's reportable segments (see note 2).

Revenue for the year ended 31 March 2023	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	National Grid Ventures £m	Other £m	Total £m
Revenue under IFRS 15								
Transmission	1,868	–	126	52	567	791	–	3,404
Distribution	–	1,951	–	4,314	6,373	–	–	12,638
System Operator	–	–	4,533	–	–	–	–	4,533
Other[1]	31	77	–	8	13	131	–	260
Total IFRS 15 revenue	**1,899**	**2,028**	**4,659**	**4,374**	**6,953**	**922**	**–**	**20,835**
Other revenue								
Generation	–	–	–	–	–	394	–	394
Other[2]	47	5	–	53	41	(33)	317	430
Total other revenue	**47**	**5**	**–**	**53**	**41**	**361**	**317**	**824**
Total revenue from continuing operations	**1,946**	**2,033**	**4,659**	**4,427**	**6,994**	**1,283**	**317**	**21,659**

1. The UK Electricity Transmission and UK Electricity Distribution other IFRS 15 revenue principally relates to engineering recharges, which are the recovery of costs incurred for construction work requested by customers, such as the rerouting of existing network assets. Within NGV, the other IFRS 15 revenue principally relates to revenue generated from our National Grid Renewables business.
2. Other revenue, recognised in accordance with accounting standards other than IFRS 15, includes property sales by our UK commercial property business, rental income, income arising in connection with the Transition Services Agreements following the sales of NECO and the UK Gas Transmission business in the year, and a provision and adjustment to NGV revenue in respect of the interconnector cap and floor regime constructed by Ofgem. In the year ended 31 March 2023 the Group also recognised other income relating to an insurance claim.

3. Revenue continued

(h) Disaggregation of revenue continued

Geographical split for the year ended 31 March 2023	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	National Grid Ventures £m	Other £m	Total £m
Revenue under IFRS 15								
UK	1,899	2,028	4,659	—	—	799	—	9,385
US	—	—	—	4,374	6,953	123	—	11,450
Total IFRS 15 revenue	1,899	2,028	4,659	4,374	6,953	922	—	20,835
Other revenue								
UK	47	5	—	—	—	(31)	205	226
US	—	—	—	53	41	392	112	598
Total other revenue	47	5	—	53	41	361	317	824
Total revenue from continuing operations	1,946	2,033	4,659	4,427	6,994	1,283	317	21,659

Revenue for the year ended 31 March 2022	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	National Grid Ventures[1] £m	Other[1] £m	Total £m
Revenue under IFRS 15								
Transmission	1,983	—	—	52	405	627	—	3,067
Distribution	—	1,375	—	4,434	5,110	—	—	10,919
System Operator	—	—	3,418	—	—	—	—	3,418
Other[2]	35	89	19	10	10	147	—	310
Total IFRS 15 revenue	2,018	1,464	3,437	4,496	5,525	774	—	17,714
Other revenue								
Generation	—	—	—	—	—	373	—	373
Other[3]	10	4	—	54	36	(123)	192	173
Total other revenue	10	4	—	54	36	250	192	546
Total revenue before exceptional items and remeasurements	2,028	1,468	3,437	4,550	5,561	1,024	192	18,260
Exceptional items and remeasurements	—	—	—	—	—	—	189	189
Total revenue from continuing operations	2,028	1,468	3,437	4,550	5,561	1,024	381	18,449

Geographical split for the year ended 31 March 2022	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	National Grid Ventures[1] £m	Other[1] £m	Total £m
Revenue under IFRS 15								
UK	2,018	1,464	3,437	—	—	646	—	7,565
US	—	—	—	4,496	5,525	128	—	10,149
Total IFRS 15 revenue	2,018	1,464	3,437	4,496	5,525	774	—	17,714
Other revenue								
UK	10	4	—	—	—	(132)	167	49
US	—	—	—	54	36	382	25	497
Total other revenue	10	4	—	54	36	250	192	546
Total revenue before exceptional items and remeasurements	2,028	1,468	3,437	4,550	5,561	1,024	192	18,260
Exceptional items and remeasurements	—	—	—	—	—	—	189	189
Total revenue from continuing operations	2,028	1,468	3,437	4,550	5,561	1,024	381	18,449

1. Comparative amounts have been re-presented to reflect NGV as a separate operating segment.
2. The UK Electricity Transmission and UK Electricity Distribution other IFRS 15 revenue principally relates to engineering recharges, which are the recovery of costs incurred for construction work requested by customers, such as the rerouting of existing network assets. UK Electricity System Operator other IFRS 15 revenue reflects the net income from its role as agent in respect of transmission network revenues. Within NGV, the other IFRS 15 revenue principally relates to revenue generated from our National Grid Renewables business.
3. Other revenue, recognised in accordance with accounting standards other than IFRS 15, includes property sales by our UK commercial property business and rental income. Included within NGV is a provision and adjustment to NGV revenue in respect of the interconnector cap and floor regime constructed by Ofgem.

3. Revenue continued

(h) Disaggregation of revenue continued

Revenue for the year ended 31 March 2021	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	National Grid Ventures[1] £m	Other[1] £m	Total £m
Revenue under IFRS 15								
Transmission	1,875	—	—	74	329	316	—	2,594
Distribution	—	—	—	4,091	4,226	—	—	8,317
System Operator	—	—	2,076	—	—	—	—	2,076
Other[2]	67	—	(61)	8	7	76	—	97
Total IFRS 15 revenue	1,942	—	2,015	4,173	4,562	392	—	13,084
Other revenue								
Generation	—	—	—	—	—	376	—	376
Other[3]	22	—	3	41	43	18	78	205
Total other revenue	22	—	3	41	43	394	78	581
Total revenue from continuing operations	1,964	—	2,018	4,214	4,605	786	78	13,665

Geographical split for the year ended 31 March 2021	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	National Grid Ventures[1] £m	Other[1] £m	Total £m
Revenue under IFRS 15								
UK	1,942	—	2,015	—	—	327	—	4,284
US	—	—	—	4,173	4,562	65	—	8,800
Total IFRS 15 revenue	1,942	—	2,015	4,173	4,562	392	—	13,084
Other revenue								
UK	22	—	3	—	—	3	56	84
US	—	—	—	41	43	391	22	497
Total other revenue	22	—	3	41	43	394	78	581
Total revenue from continuing operations	1,964	—	2,018	4,214	4,605	786	78	13,665

1. Comparative amounts have been re-presented to reflect NGV as a separate operating segment.
2. The UK Electricity Transmission other IFRS 15 revenue principally relates to engineering recharges, which are the recovery of costs incurred for construction work requested by customers, such as the rerouting of existing network assets. UK Electricity System Operator other IFRS 15 revenue reflects the net income from its role as agent in respect of transmission network revenues. Within NGV, the other IFRS 15 revenue principally relates to revenue generated from our National Grid Renewables business.
3. Other revenue, recognised in accordance with accounting standards other than IFRS 15, principally includes property sales by our UK commercial property business reported in Other.

Contract liabilities (see note 23) represent revenue to be recognised in future periods relating to contributions in aid of construction of £2,006 million (2022: £1,472 million; 2021: £1,160 million). Contract liabilities in the year ended 31 March 2021 included amounts in respect of the UK Gas Transmission business of £136 million. Revenue is recognised over the life of the asset. The asset lives for connections in UK Electricity Transmission, UK Electricity Distribution, New England and New York are 40 years, 69 years, 51 years and up to 51 years respectively. The weighted average amortisation period is 27 years.

Future revenues in relation to unfulfilled performance obligations not yet received in cash amount to £5.0 billion (2022: £5.2 billion; 2021: £4.8 billion). £1.8 billion (2022: £1.7 billion; 2021: £1.6 billion) relates to connection contracts in UK Electricity Transmission which will be recognised as revenue over 24 years and £2.7 billion (2022: £3.0 billion; 2021: £3.0 billion) relates to revenues to be earned under Grain LNG contracts until 2045. The remaining amount will be recognised as revenue over two years.

The amount of revenue recognised for the year ended 31 March 2023 from performance obligations satisfied (or partially satisfied) in previous periods, mainly due to changes in the estimate of the stage of completion, is £nil (2022: £nil; 2021: £nil).

4. Other operating costs

Below we have presented separately certain items included in our operating costs from continuing operations. These include a breakdown of payroll costs (including disclosure of amounts paid to key management personnel) and fees paid to our auditors.

	Before exceptional items and remeasurements			Exceptional items and remeasurements			Total		
	2023 £m	2022[1] £m	2021 £m	**2023 £m**	2022[1] £m	2021 £m	**2023 £m**	2022[1] £m	2021 £m
Depreciation, amortisation and impairment	**1,984**	1,830	1,485	**—**	—	—	**1,984**	1,830	1,485
Payroll costs	**1,929**	1,770	1,622	**29**	24	16	**1,958**	1,794	1,638
Purchases of electricity	**1,808**	1,487	1,181	**247**	(207)	(51)	**2,055**	1,280	1,130
Purchases of gas	**2,413**	1,851	1,233	**103**	(185)	17	**2,516**	1,666	1,250
Property and other taxes	**1,302**	1,202	1,105	**—**	—	—	**1,302**	1,202	1,105
UK Electricity Balancing costs	**4,052**	3,152	1,875	**—**	—	—	**4,052**	3,152	1,875
Other	**3,670**	2,988	2,412	**12**	227	44	**3,682**	3,215	2,456
Other operating costs	**17,158**	14,280	10,913	**391**	(141)	26	**17,549**	14,139	10,939
Provision for bad and doubtful debts	**220**	167	325	**—**	—	—	**220**	167	325
Total operating costs from continuing operations	**17,378**	14,447	11,238	**391**	(141)	26	**17,769**	14,306	11,264
Operating costs from continuing operations include:									
Inventory consumed							**723**	436	312
Research and development expenditure							**23**	11	12

1. Amounts in the year ended 31 March 2022 have been re-presented to disclose other operating income separately from other operating costs.

(a) Payroll costs

	2023 £m	2022 £m	2021 £m
Wages and salaries[1]	**2,971**	2,563	2,170
Social security costs	**244**	201	156
Defined contribution scheme costs	**98**	81	67
Defined benefit pension costs	**121**	185	126
Share-based payments	**46**	38	23
Severance costs (excluding pension costs)	**3**	5	9
	3,483	3,073	2,551
Less: payroll costs capitalised	**(1,525)**	(1,279)	(913)
Total payroll costs from continuing operations	**1,958**	1,794	1,638

1. Included within wages and salaries are US other post-retirement benefit costs of £37 million (2022: £39 million; 2021: £43 million). For further information refer to note 25.

(b) Number of employees

	31 March 2023	**Monthly average 2023**	31 March 2022	Monthly average 2022	31 March 2021	Monthly average 2021
UK	**12,572**	**12,024**	11,960	11,393	4,468	4,333
US	**16,878**	**16,539**	17,332	17,314	17,026	16,821
Total number of employees (continuing operations)	**29,450**	**28,563**	29,292	28,707	21,494	21,154

4. Other operating costs continued

(c) Key management compensation

	2023 £m	2022 £m	2021 £m
Short-term employee benefits	7	7	7
Compensation for loss of office	–	–	–
Post-employment benefits	–	1	1
Share-based payments	6	5	4
Total key management compensation	**13**	13	12

Key management compensation relates to the Board, including the Executive Directors and Non-executive Directors for the years presented.

(d) Directors' emoluments

Details of Executive Directors' emoluments are contained in the Remuneration Report on page 95 and those of Non-executive Directors on page 101.

(e) Auditors' remuneration

Auditors' remuneration is presented below in accordance with the requirements of the Companies Act 2006 and the principal accountant fees and services disclosure requirements of Item 16C of Form 20-F:

	2023 £m	2022 £m	2021 £m
Audit fees payable to the Parent Company's auditor and their associates in respect of:			
Audit of the Parent Company's individual and consolidated financial statements[1]	2.9	2.7	2.5
The auditing of accounts of any associate of the Company	9.0	8.9	8.1
Other services supplied[2]	7.4	7.3	6.4
	19.3	18.9	17.0
Total other services[3]			
All other fees:			
Other assurance services[4]	1.4	0.9	0.8
Other non-audit services not covered above[5]	0.2	0.1	2.0
	1.6	1.0	2.8
Total auditor's remuneration	**20.9**	19.9	19.8

1. Audit fees in each year represent fees for the audit of the Company's financial statements for the years ended 31 March 2023, 2022 and 2021.
2. Other services supplied represent fees payable for services in relation to other statutory filings or engagements that are required to be carried out by the auditor. In particular, this includes fees for reports under section 404 of the US Public Company Accounting Reform and Investor Protection Act of 2002 (Sarbanes-Oxley Act), audit reports on regulatory returns and the review of interim financial statements for the six-month periods ended 30 September 2022, 2021 and 2020 respectively.
3. There were no tax compliance or tax advisory fees and no audit-related fees as described in Item 16C(b) of Form 20-F.
4. In all years, principally relates to assurance services provided in relation to comfort letters for debt issuances and, in 2021, also includes amounts related to capacity market auction monitoring services.
5. For 2021, includes the class 1 Circular in respect of the acquisition of NGED.

The Audit & Risk Committee considers and makes recommendations to the Board, to be put to shareholders for approval at each AGM, in relation to the appointment, reappointment, removal and oversight of the Company's independent auditor. The Committee, under authority granted at the AGM, also considers and approves the audit fees on behalf of the Board in accordance with the Competition and Markets Authority Audit Order 2014. Details of our policies and procedures in relation to non-audit services to be provided by the independent auditor are set out on page 87 of the Corporate Governance Report.

Certain services are prohibited from being performed by the external auditor under the Sarbanes-Oxley Act. Of the above services, none were prohibited.

5. Exceptional items and remeasurements

To monitor our financial performance, we use an adjusted consolidated profit measure that excludes certain income and expenses. We exclude items from adjusted profit because, if included, these items could distort understanding of our performance for the year and the comparability between periods. This note analyses these items, which are included in our results for the year but are excluded from adjusted profit.

Exceptional items and remeasurements from continuing operations

	2023 £m	2022 £m	2021 £m
Included within operating profit			
Exceptional items:			
Net gain on disposal of NECO	**511**	–	–
Net gain on disposal of Millennium Pipeline Company LLC	**335**	–	–
IFA fire	**130**	–	–
Transaction, separation and integration costs[1]	**(117)**	(223)	(24)
Changes in environmental provisions	**176**	–	14
Cost efficiency programme	**(100)**	(42)	–
New operating model implementation costs	**–**	(24)	(50)
Release of St William Homes LLP deferred income	**–**	189	–
Net gain on disposal of St William Homes LLP	**–**	228	–
Environmental insurance recovery	**–**	38	–
	935	166	(60)
Remeasurements – commodity contract derivatives	**(350)**	392	34
	585	558	(26)
Included within finance income and costs			
Remeasurements:			
Net gains on financing derivatives	**82**	74	47
Net (losses)/gains on financial assets at fair value through profit and loss	**(28)**	(15)	23
	54	59	70
Included within share of post-tax results of joint ventures and associates			
Remeasurements:			
Remeasurements – net losses on financial instruments	**(19)**	(56)	(8)
Total included within profit before tax	**620**	561	36
Included within tax			
Exceptional items – movements arising on items not included in profit before tax:			
Deferred tax charge arising as a result of UK tax rate change	**–**	(458)	–
Tax on exceptional items	**(316)**	(28)	8
Tax on remeasurements	**75**	(103)	(34)
	(241)	(589)	(26)
Total exceptional items and remeasurements after tax	**379**	(28)	10
Analysis of total exceptional items and remeasurements after tax			
Exceptional items after tax	**619**	(320)	(52)
Remeasurements after tax	**(240)**	292	62
Total exceptional items and remeasurements after tax	**379**	(28)	10

1. Transaction, separation and integration costs represent the aggregate of distinct activities undertaken by the Group in the years presented.

5. Exceptional items and remeasurements continued

Exceptional items

Management uses an exceptional items framework that has been discussed and approved by the Audit & Risk Committee. This follows a three-step process which considers the nature of the event, the financial materiality involved and any particular facts and circumstances. In considering the nature of the event, management focuses on whether the event is within the Group's control and how frequently such an event typically occurs. With respect to restructuring costs, these represent additional expenses incurred that are not related to the normal business and day-to-day activities. In determining the facts and circumstances, management considers factors such as ensuring consistent treatment between favourable and unfavourable transactions, the precedent for similar items, the number of periods over which costs will be spread or gains earned, and the commercial context for the particular transaction. The exceptional items framework was last updated in March 2022.

Items of income or expense that are considered by management for designation as exceptional items include significant restructurings, write-downs or impairments of non-current assets, significant changes in environmental or decommissioning provisions, integration of acquired businesses, gains or losses on disposals of businesses or investments and significant debt redemption costs as a consequence of transactions such as significant disposals or issues of equity, and the related tax, as well as deferred tax arising on changes to corporation tax rates.

Costs arising from efficiency and transformation programmes include redundancy costs. Redundancy costs are charged to the consolidated income statement in the year in which a commitment is made to incur the costs and the main features of the restructuring plan have been announced to affected employees.

Set out below are details of the transactions against which we have considered the application of our exceptional items framework in each of the years for which results are presented. No COVID-19 related costs incurred have been recognised as exceptional in any of the years presented.

2023

Net gain on disposal of NECO

During the year, the Group recognised a gain of £511 million on the disposal of 100% of the share capital of NECO to PPL Rhode Island Holdings, LLC for cash consideration of £3.1 billion ($3.9 billion) (see note 10). The receipt of cash has been recognised within net cash used in investing activities within the consolidated cash flow statement.

Net gain on disposal of Millennium Pipeline Company LLC

During the year, the Group recognised a gain of £335 million on the disposal of its entire 26.25% equity interest in the Millennium Pipeline Company LLC associate to DT Midstream for cash consideration of £497 million. The receipt of cash has been recognised within net cash used in investing activities within the consolidated cash flow statement.

Fire at IFA converter station

In September 2021, a fire at the IFA converter station in Sellindge, Kent caused significant damage to infrastructure on site. In the year, the Group recognised £130 million of insurance claims (net of asset write-offs) which have been recognised as exceptional in line with our exceptional items policy. The total cash inflow for the period was £79 million.

Transaction, separation and integration costs

During the year, separation costs of £39 million were incurred in relation to the disposal of NECO, £38 million in relation to the disposal of a majority stake in our UK Gas Transmission business (see note 10) and £40 million in connection with the integration of NGED. The costs incurred primarily relate to legal fees, bankers' fees, professional fees and employee costs. The costs have been classified as exceptional, consistent with similar costs for the years ended 31 March 2022 and 2021 and in line with the exceptional items policy. The total cash outflow for the period in relation to these costs was £84 million.

Changes in environmental provisions

The real discount rate applied to the Group's environmental provisions was revised to 1.5% in the year (2022: 0.5%) to reflect the substantial and sustained change in United States government bond yield curves (see note 26). The principal impact of this rate increase was a £165 million decrease in our US environmental provisions and a £11 million decrease in our UK environmental provision. The weighted average remaining duration of our cash flows is now around 10.5 years.

Cost efficiency programme

During the year, the Group incurred a further £100 million of costs in relation to the major cost efficiency programme announced in November 2021, that is targeting at least £400 million savings per annum across the Group by the end of three years. The costs recognised in the period primarily relate to property costs, employee costs and professional fees incurred in delivering the programme. Whilst the costs incurred during the period do not meet the quantitative threshold to be classified as exceptional on a standalone basis, when taken in aggregate with the £42 million of costs incurred in the year ended 31 March 2022, the costs qualify for exceptional treatment in line with our exceptional items policy. Estimated costs expected to be incurred in future years are disclosed in the Financial review on page 59. The total cash outflow for the period in relation to these costs was £85 million.

5. Exceptional items and remeasurements continued

Exceptional items continued

2022

Net gain on disposal of St William Homes LLP and release of deferred income

The Group recognised a gain of £228 million on the disposal of its entire 50% equity interest in the St William Homes LLP joint venture to The Berkeley Group plc for cash consideration of £413 million (see note 16). In connection with the disposal, the Group also released deferred income of £189 million which related to deferred profits from previous property sales to St William Homes LLP. We concluded that the release of the deferred income should be classified as exceptional given the crystallisation event for the release is the sale of the Group's equity interest in St William Homes LLP.

New operating model implementation costs and cost efficiency programme

The Group incurred a further £24 million of costs in relation to the design and implementation of our new operating model and £42 million in relation to the major cost efficiency programme announced in November 2021. The costs recognised primarily related to professional fees incurred and redundancy provisions.

Whilst the costs incurred did not meet the quantitative threshold to be classified as exceptional on a standalone basis, when taken in aggregate with the costs expected to be incurred over the duration of the cost efficiency programme, we concluded that the costs should be classified as exceptional in line with our exceptional items policy. The total cash outflow for the period was £48 million.

Transaction and separation costs

£223 million of transaction and separation costs were incurred in relation to the acquisition of NGED (see note 37), the planned disposal of NECO (see note 10) and the planned disposal of our UK Gas Transmission business (see note 10). The costs related to legal fees, bankers' fees and other professional fees. The costs were classified as exceptional, consistent with similar costs for the year ended 31 March 2021. The total cash outflow for the year was £196 million.

Environmental insurance recovery

In the US, the most significant component of our £1.9 billion environmental provision relates to several Superfund sites, and arose from former manufacturing gas plant facilities, previously owned or operated by the Group or its predecessor companies. Under Federal and State Superfund laws, potential liability for the historical contamination may be imposed on responsible parties jointly and severally, without regard to fault, even if the activities were lawful when they occurred. In the year ended 31 March 2022, we recognised an exceptional gain of £38 million relating to an insurance receivable for site remediation costs included in our Superfund sites environmental provision. The insurance receipts were recorded as an exceptional item in line with the treatment of the related costs.

2021

New operating model implementation costs

The Group incurred £50 million of costs in relation to the design and implementation of our new operating model that is built on a foundation of six business units. The costs recognised in the year ended 31 March 2021 primarily related to professional fees incurred and redundancy provisions. In evaluating the costs incurred against the quantitative thresholds in our exceptional items framework we considered the total costs to be incurred over the duration of the programme. Whilst the costs incurred did not meet the quantitative threshold to be classified as exceptional on a standalone basis, we concluded that the costs should be classified as exceptional in line with our exceptional items policy, in order to ensure that the costs are treated in a consistent manner with similar costs incurred previously. The total cash outflow for the year was £33 million.

Transaction and separation costs

£24 million of transaction and separation costs were incurred in relation to the acquisition of NGED (see note 37) and the planned sale of NECO (see note 10). The costs related to legal fees, bankers' fees and professional fees. Whilst the costs incurred in isolation were not sufficiently material to warrant classification as an exceptional item, we expected further costs to be incurred in the next year, for example in regard to success fees on completion of the acquisition. When taken in aggregate, the costs incurred over both years will be sufficiently material to be classified as exceptional in line with our policy. The total cash outflow for the year was £14 million.

Changes in environmental provision

We recognised an exceptional gain of £14 million relating to the release of environmental provisions relating to one of our US Superfund sites, for which the original provision was treated as an exceptional item. The reduction in the provision arose as a result of the re-evaluation of the Group's share of estimated costs following the finalisation of discussions on the scope of certain remediation work with government authorities. The release was recorded as an exceptional item in line with the treatment of the original provision.

5. Exceptional items and remeasurements continued

Remeasurements

Remeasurements comprise unrealised gains or losses recorded in the consolidated income statement arising from changes in the fair value of certain of our financial assets and liabilities accounted for at fair value through profit and loss (FVTPL). Once the fair value movements are realised (for example when the derivative matures), the previously recognised fair value movements are then reversed through remeasurements and recognised within earnings before exceptional items and remeasurements. These assets and liabilities include commodity contract derivatives and financing derivatives to the extent that hedge accounting is not available or is not fully effective.

The unrealised gains or losses reported in profit and loss on certain additional assets and liabilities treated at FVTPL are also classified within remeasurements. These relate to financial assets (which fail the 'solely payments of principal and interest test' under IFRS 9), the money market fund investments used by Group Treasury for cash management purposes and the net foreign exchange gains and losses on borrowing activities. These are offset by foreign exchange gains and losses on financing derivatives measured at fair value. In all cases, these fair values increase or decrease because of changes in foreign exchange, commodity or other financial indices over which we have no control.

We report unrealised gains or losses relating to certain discrete classes of financial assets accounted for at FVTPL within adjusted profit. These comprise our portfolio of investments made by National Grid Partners, our investment in Sunrun Neptune 2016 LLC and the contingent consideration arising on the acquisition of National Grid Renewables (all within NGV). The performance of these assets (including changes in fair value) is included in our assessment of adjusted profit for the relevant business units.

Remeasurements excluded from adjusted profit are made up of the following categories:

i. Net gains/(losses) on commodity contract derivatives represent mark-to-market movements on certain physical and financial commodity contract obligations in the US. These contracts primarily relate to the forward purchase of energy for supply to customers, or to the economic hedging thereof, that are required to be measured at fair value and that do not qualify for hedge accounting. Under the existing rate plans in the US, commodity costs are recoverable from customers although the timing of recovery may differ from the pattern of costs incurred;

ii. Net gains/(losses) on financing derivatives comprise gains and losses arising on derivative financial instruments used for the risk management of interest rate and foreign exchange exposures and the offsetting foreign exchange losses and gains on the associated borrowing activities. These exclude gains and losses for which hedge accounting has been effective and have been recognised directly in the consolidated statement of other comprehensive income or are offset by adjustments to the carrying value of debt (see notes 17 and 32). Net foreign exchange gains and losses on financing derivatives used for the risk management of foreign exchange exposures are offset by foreign exchange losses and gains on borrowing activities;

iii. Net gains/(losses) on financial assets measured at FVTPL comprise gains and losses on the investment funds held by our insurance captives which are categorised as FVTPL (see note 15); and

iv. Unrealised net gains/(losses) on derivatives and other financial instruments within our joint ventures and associates.

Items included within tax

2022

Change in UK corporation tax rate

In the Spring Budget 2021, the UK government announced that from 1 April 2023 the UK corporation tax rate will increase to 25%, and this was substantively enacted on 24 May 2021. Deferred tax balances at 31 March 2022 were remeasured at the enacted rate, with £458 million recognised as exceptional, in line with previous periods.

6. Finance income and costs

This note details the interest income generated by our financial assets and interest expense incurred on our financial liabilities, primarily our financing portfolio (including our financing derivatives). It also includes the net interest on our pensions and other post-retirement assets. In reporting adjusted profit, we adjust net financing costs to exclude any net gains or losses on financial instruments included in remeasurements (see note 5).

Finance income and costs remeasurements include unrealised gains and losses on certain assets treated at FVTPL. The interest income, dividends and interest expense on these items are included in finance income and finance costs before remeasurements respectively.

	Notes	2023 £m	2022 £m	2021 £m
Finance income				
Net interest income on pensions and other post-retirement benefit obligations	25	**85**	–	–
Interest income on financial instruments:				
Bank deposits and other financial assets		**80**	32	33
Dividends received on equities held at fair value through other comprehensive income (FVOCI)		**1**	3	2
Other income		**–**	30	–
		166	65	35
Finance costs				
Net interest expense on pensions and other post-retirement benefit obligations	25	**–**	–	(51)
Interest expense on financial liabilities held at amortised cost:				
Bank loans and overdrafts		**(328)**	(216)	(53)
Other borrowings[1]		**(1,330)**	(961)	(741)
Interest on derivatives		**(170)**	(59)	(47)
Unwinding of discount on provisions	26	**(88)**	(73)	(77)
Other interest		**(13)**	11	(51)
Less: interest capitalised[2]		**249**	152	120
		(1,680)	(1,146)	(900)
Remeasurements – Finance income				
Net (losses)/gains on FVTPL financial assets		**(28)**	(15)	23
		(28)	(15)	23
Remeasurements – Finance costs				
Net gains on financing derivatives[3]:				
Derivatives designated as hedges for hedge accounting		**22**	45	30
Derivatives not designated as hedges for hedge accounting		**60**	29	17
		82	74	47
Total remeasurements – Finance income and costs		**54**	59	70
Finance income		**138**	50	58
Finance costs[4]		**(1,598)**	(1,072)	(853)
Net finance costs from continuing operations		**(1,460)**	(1,022)	(795)

1. Includes interest expense on lease liabilities (see note 13 for details).
2. Interest on funding attributable to assets in the course of construction in the current year was capitalised at a rate of 4.7% (2022: 3.2%; 2021: 3.1%). In the UK, capitalised interest qualifies for a current year tax deduction with tax relief claimed of £30 million (2022: £16 million; 2021: £11 million). In the US, capitalised interest is added to the cost of property, plant and equipment and qualifies for tax depreciation allowances.
3. Includes a net foreign exchange loss on borrowing activities of £86 million (2022: £110 million gain; 2021: £73 million gain) offset by foreign exchange gains and losses on financing derivatives measured at fair value.
4. Finance costs include principal accretion on inflation-linked liabilities of £483 million (2022: £241 million; 2021: £46 million).

7. Tax

Tax is payable in the territories where we operate, mainly the UK and the US. This note gives further details of the total tax charge and tax liabilities, including current and deferred tax. The current tax charge is the tax payable on this year's taxable profits. Deferred tax is an accounting adjustment to provide for tax that is expected to arise in the future due to differences in the accounting and tax bases.

The tax charge for the period is recognised in the income statement, the statement of comprehensive income or directly in the statement of changes in equity, according to the accounting treatment of the related transaction. The tax charge comprises both current and deferred tax.

Current tax assets and liabilities are measured at the amounts expected to be recovered from or paid to the tax authorities. The tax rates and tax laws used to compute the amounts are those that have been enacted or substantively enacted by the reporting date.

The Group operates internationally in territories with different and complex tax codes. Management exercises judgement in relation to the level of provision required for uncertain tax outcomes. There are a number of tax positions not yet agreed with the tax authorities where different interpretations of legislation could lead to a range of outcomes. Judgements are made for each position having regard to particular circumstances and advice obtained.

Deferred tax is provided for using the balance sheet liability method and is recognised on temporary differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases.

Deferred tax liabilities are generally recognised on all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. However, deferred tax assets and liabilities are not recognised if the temporary differences arise from the initial recognition of goodwill or from the initial recognition of other assets and liabilities in a transaction (other than a business combination) that affects neither the accounting nor the taxable profit or loss.

Deferred tax liabilities are recognised on taxable temporary differences arising on investments in subsidiaries and joint arrangements except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on the tax rates and tax laws that have been enacted or substantively enacted by the reporting date.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when they relate to income taxes levied by the same tax authority, and the Company and its subsidiaries intend to settle their current tax assets and liabilities on a net basis.

Tax charged to the consolidated income statement – continuing operations

	2023 £m	2022 £m	2021 £m
Tax before exceptional items and remeasurements	**635**	669	334
Exceptional tax on items not included in profit before tax (note 5)	**—**	458	—
Tax on other exceptional items and remeasurements	**241**	131	26
Total tax reported within exceptional items and remeasurements	**241**	589	26
Total tax charge from continuing operations	**876**	1,258	360

Tax as a percentage of profit before tax

	2023 %	2022 %	2021 %
Before exceptional items and remeasurements – continuing operations	**21.4**	23.2	20.5
After exceptional items and remeasurements – continuing operations	**24.4**	36.6	21.6

7. Tax continued

The tax charge for the year can be analysed as follows:

	2023 £m	2022 £m	2021 £m
Current tax:			
UK corporation tax at 19% (2022: 19%; 2021: 19%)	**161**	255	157
UK corporation tax adjustment in respect of prior years	**—**	(9)	15
	161	246	172
Overseas corporation tax	**225**	6	3
Overseas corporation tax adjustment in respect of prior years	**(16)**	(26)	(15)
	209	(20)	(12)
Total current tax from continuing operations	**370**	226	160
Deferred tax:			
UK deferred tax	**255**	605	39
UK deferred tax adjustment in respect of prior years	**13**	(5)	(20)
	268	600	19
Overseas deferred tax	**233**	425	174
Overseas deferred tax adjustment in respect of prior years	**5**	7	7
	238	432	181
Total deferred tax from continuing operations	**506**	1,032	200
Total tax charge from continuing operations	**876**	1,258	360

Tax (credited)/charged to the consolidated statement of comprehensive income and equity

	2023 £m	2022 £m	2021 £m
Current tax:			
Share-based payments	**(1)**	–	–
Deferred tax:			
Investments at fair value through other comprehensive income	**(1)**	–	12
Cash flow hedges, cost of hedging and own credit reserve	**(7)**	(12)	6
Remeasurements of pension assets and post-retirement benefit obligations	**(344)**	493	462
Share-based payments	**1**	(4)	1
	(352)	477	481
Total tax recognised in the statements of comprehensive income from continuing operations	**(352)**	481	480
Total tax relating to share-based payments recognised directly in equity from continuing operations	**—**	(4)	1
	(352)	477	481

7. Tax continued

The tax charge for the year after exceptional items and remeasurements, for the continuing business, is higher (2022: higher tax charge; 2021: higher tax charge) than the standard rate of corporation tax in the UK of 19% (2022: 19%; 2021: 19%):

	Before exceptional items and remeasurements 2023 £m	After exceptional items and remeasurements 2023 £m	Before exceptional items and remeasurements 2022 £m	After exceptional items and remeasurements 2022 £m	Before exceptional items and remeasurements 2021 £m	After exceptional items and remeasurements 2021 £m
Profit before tax from continuing operations						
Before exceptional items and remeasurements	**2,970**	**2,970**	2,880	2,880	1,628	1,628
Exceptional items and remeasurements	**—**	**620**	—	561	—	36
Profit before tax from continuing operations	**2,970**	**3,590**	2,880	3,441	1,628	1,664
Profit before tax from continuing operations multiplied by UK corporation tax rate of 19% (2022: 19%; 2021: 19%)	**564**	**682**	547	654	309	316
Effect of:						
Adjustments in respect of prior years[1]	**2**	**2**	(28)	(33)	(10)	(12)
Expenses not deductible for tax purposes	**28**	**92**	13	47	18	29
Non-taxable income[2]	**(47)**	**(75)**	(19)	(49)	(7)	(7)
Adjustment in respect of foreign tax rates[3]	**73**	**147**	143	170	42	42
Deferred tax impact of change in UK tax rate	**62**	**66**	43	501	—	—
Adjustment in respect of post-tax profits of joint ventures and associates included within profit before tax	**(36)**	**(27)**	(28)	(17)	(15)	(12)
Other[4]	**(11)**	**(11)**	(2)	(15)	(3)	4
Total tax charge from continuing operations	**635**	**876**	669	1,258	334	360
	%	**%**	%	%	%	%
Effective tax rate – continuing operations	**21.4**	**24.4**	23.2	36.6	20.5	21.6

1. The prior year adjustments are primarily due to agreement of prior period tax returns.
2. Includes tax on chargeable disposals after the offset of capital losses.
3. Includes remeasurement of US closing state deferred tax balances as a result of expected increase in the blended state tax rate following the disposal of NECO.
4. Other primarily comprises the movement in the deferred tax asset on previously unrecognised capital losses, claims for land remediation relief and claims for Research & Development credit.

Factors that may affect future tax charges

In the Spring Budget 2021, the UK Government announced an increase in the main corporation tax rate from 19% to 25% with effect from 1 April 2023. This was substantively enacted on 24 May 2021. Deferred tax balances as at 31 March 2023 have been calculated at 25%.

The US Government continues to consider changes to federal tax legislation, but as no changes have been substantively enacted at the balance sheet date, deferred tax balances as at 31 March 2023 have been calculated at the prevailing tax rates based on the current tax laws.

We will continue to monitor the developments driven by Brexit, the OECD's Base Erosion and Profit Shifting (BEPS) project and European Commission initiatives including fiscal aid investigations. At this time, we do not expect this to have any material impact on our future tax charges. Governments across the world, including the UK and the US, have introduced various stimuli/reliefs for businesses to cope with the impact of the COVID-19 pandemic, from which we do not currently expect there to be a material impact on our future tax charges.

7. Tax continued

Tax included within the statement of financial position

The following are the major deferred tax assets and liabilities recognised, and the movements thereon, during the current and prior reporting periods:

	Regulatory licences £m	Accelerated tax depreciation £m	Share-based payments £m	Pensions and other post-retirement benefits £m	Financial instruments £m	Other net temporary differences[1] £m	Total £m
Deferred tax liabilities/(assets)							
At 1 April 2021	—	6,434	(42)	93	(44)	(1,626)	4,815
Exchange adjustments and other[2]	—	247	(1)	1	1	(85)	163
Charged/(credited) to income statement	—	1,050	26	118	153	(117)	1,230
Charged/(credited) to other comprehensive income and equity	—	—	(6)	587	(10)	—	571
Reclassification to held for sale (note 10)	—	(643)	5	(166)	2	(1)	(803)
Acquisition of NGED (note 37)	429	622	—	142	(403)	(1)	789
At 1 April 2022	429	7,710	(18)	775	(301)	(1,830)	6,765
Exchange adjustments and other[2]	—	357	(2)	8	8	(116)	255
Charged/(credited) to income statement	—	145	(2)	51	(71)	386	509
Charged/(credited) to other comprehensive income and equity	—	—	1	(344)	(6)	—	(349)
Disposals	—	1	—	—	—	—	1
At 31 March 2023	**429**	**8,213**	**(21)**	**490**	**(370)**	**(1,560)**	**7,181**

1. The deferred tax asset of £1,560 million as at 31 March 2023 (2022: £1,830 million) in respect of other net temporary differences primarily relates to losses of £47 million (2022: £428 million), US contract and lease liabilities £511 million (2022: £450 million), US environmental provisions of £503 million (2022: £511 million) and US bad debt provision of £148 million (2022: £201 million).
2. Exchange adjustments and other primarily comprises foreign exchange arising on translation of the US dollar deferred tax balances.

Deferred tax assets and liabilities are only offset where there is a legally enforceable right of offset and there is an intention to settle the balances net. The deferred tax balances (after offset) for statement of financial position purposes consist solely of deferred tax liabilities of £7,181 million (2022: £6,765 million). This balance is after offset of a deferred tax asset of £47 million (2022: £428 million) which has been recognised in respect of net operating losses (£39 million) and capital losses (£8 million).

Deferred tax assets in respect of some capital losses as well as trading losses and non-trade deficits have not been recognised as their future recovery is uncertain or not currently anticipated. The total deferred tax assets not recognised are as follows:

	2023 £m	2022 £m
Capital losses	**2,367**	2,363
Non-trade deficits	**—**	1
Trading losses	**4**	7

The capital losses arose in the UK on disposal of certain businesses or assets. They are available to carry forward indefinitely but can only be offset against future capital gains. The UK non-trade deficits arose prior to 1 April 2017 and therefore can only be offset against future non-trade profits.

At 31 March 2023 and 31 March 2022, there were no recognised deferred tax liabilities for taxes that would be payable on the unremitted earnings of the Group's subsidiaries or its associates as there are no significant corporation tax consequences of the Group's UK, US or overseas subsidiaries or associates paying dividends to their parent companies. There are also no significant income tax consequences for the Group from the payment of dividends by the Group to its shareholders.

8. Earnings per share (EPS)

EPS is the amount of profit after tax attributable to each ordinary share. Basic EPS is calculated on profit after tax for the year attributable to equity shareholders divided by the weighted average number of shares in issue during the year. Diluted EPS shows what the impact would be if all outstanding share options were exercised and treated as ordinary shares at year end. The weighted average number of shares is increased by additional shares issued as scrip dividends and reduced by shares repurchased by the Company during the year. The earnings per share calculations are based on profit after tax attributable to equity shareholders of the Company which excludes non-controlling interests.

Adjusted earnings and EPS, which exclude exceptional items and remeasurements, are provided to reflect the adjusted profit subtotals used by the Company. We have included reconciliations from this additional EPS measure to earnings for both basic and diluted EPS to provide additional detail for these items. For further details of exceptional items and remeasurements, see note 5.

(a) Basic EPS

	Earnings 2023 £m	EPS 2023 pence	Earnings 2022 £m	EPS 2022 pence	Earnings 2021 £m	EPS 2021 pence
Adjusted earnings from continuing operations	2,335	63.8	2,210	61.4	1,293	36.7
Exceptional items and remeasurements after tax from continuing operations (see note 5)	379	10.4	(28)	(0.8)	10	0.3
Earnings from continuing operations	2,714	74.2	2,182	60.6	1,303	37.0
Adjusted earnings from discontinued operations (see note 10)	320	8.7	344	9.6	340	9.7
Exceptional items and remeasurements after tax from discontinued operations	4,763	130.2	(173)	(4.8)	(3)	(0.1)
Earnings from discontinued operations	5,083	138.9	171	4.8	337	9.6
Total adjusted earnings	2,655	72.5	2,554	71.0	1,633	46.4
Total exceptional items and remeasurements after tax (including discontinued operations)	5,142	140.6	(201)	(5.6)	7	0.2
Total earnings	7,797	213.1	2,353	65.4	1,640	46.6

	2023 millions	2022 millions	2021 millions
Weighted average number of ordinary shares – basic	3,659	3,599	3,523

(b) Diluted EPS

	Earnings 2023 £m	EPS 2023 pence	Earnings 2022 £m	EPS 2022 pence	Earnings 2021 £m	EPS 2021 pence
Adjusted earnings from continuing operations	2,335	63.5	2,210	61.1	1,293	36.5
Exceptional items and remeasurements after tax from continuing operations (see note 5)	379	10.3	(28)	(0.8)	10	0.3
Earnings from continuing operations	2,714	73.8	2,182	60.3	1,303	36.8
Adjusted earnings from discontinued operations	320	8.7	344	9.5	340	9.6
Exceptional items and remeasurements after tax from discontinued operations (see note 10)	4,763	129.6	(173)	(4.8)	(3)	(0.1)
Earnings from discontinued operations	5,083	138.3	171	4.7	337	9.5
Total adjusted earnings	2,655	72.2	2,554	70.6	1,633	46.1
Total exceptional items and remeasurements after tax (including discontinued operations)	5,142	139.9	(201)	(5.6)	7	0.2
Total earnings	7,797	212.1	2,353	65.0	1,640	46.3

	2023 millions	2022 millions	2021 millions
Weighted average number of ordinary shares – diluted	3,676	3,616	3,540

(c) Reconciliation of basic to diluted average number of shares

	2023 millions	2022 millions	2021 millions
Weighted average number of ordinary shares – basic	3,659	3,599	3,523
Effect of dilutive potential ordinary shares – employee share plans	17	17	17
Weighted average number of ordinary shares – diluted	3,676	3,616	3,540

9. Dividends

Interim dividends are recognised when they become payable to the Company's shareholders. Final dividends are recognised when they are approved by shareholders.

	2023			2022			2021		
	Pence per share	Cash dividend £m	Scrip dividend £m	Pence per share	Cash dividend £m	Scrip dividend £m	Pence per share	Cash dividend £m	Scrip dividend £m
Interim dividend in respect of the current year	**17.84**	**488**	**163**	17.21	339	282	17.00	348	249
Final dividend in respect of the prior year	**33.76**	**1,119**	**114**	32.16	583	562	32.00	1,065	54
	51.60	**1,607**	**277**	49.37	922	844	49.00	1,413	303

The Directors are proposing a final dividend for the year ended 31 March 2023 of 37.60p per share that would absorb approximately £1,383 million of shareholders' equity (assuming all amounts are settled in cash). It will be paid on 9 August 2023 to shareholders who are on the register of members at 2 June 2023 (subject to shareholders' approval at the AGM). A scrip dividend will be offered as an alternative.

10. Assets held for sale and discontinued operations

The results and cash flows of significant assets or businesses sold during the year are shown separately from our continuing operations, and presented within discontinued operations in the income statement and cash flow statement. Assets and businesses are classified as held for sale when their carrying amounts are recovered through sale rather than through continuing use. They only meet the held for sale condition when the assets are ready for immediate sale in their present condition, management is committed to the sale and it is highly probable that the sale will complete within one year. Depreciation ceases on assets and businesses when they are classified as held for sale and the assets and businesses are impaired if the proceeds less sale costs fall short of the carrying value.

(a) Assets held for sale

The following assets and liabilities were classified as held for sale:

	2023			2022		
	Total assets held for sale £m	Total liabilities held for sale £m	Net assets held for sale £m	Total assets held for sale £m	Total liabilities held for sale £m	Net assets held for sale £m
Investment in GasT TopCo Limited	**1,443**	**—**	**1,443**	—	—	—
FAA derivative	**—**	**(109)**	**(109)**	—	—	—
The Narragansett Electric Company	**—**	**—**	**—**	4,129	(1,658)	2,471
UK Gas Transmission	**—**	**—**	**—**	5,871	(5,530)	341
Net assets held for sale	**1,443**	**(109)**	**1,334**	10,000	(7,188)	2,812

Gain on disposal of The Narragansett Electric Company

On 17 March 2021, the Group signed an agreement to sell 100% of the share capital of a wholly owned subsidiary, The Narragansett Electric Company (NECO). The Group subsequently completed the NECO Sale to PPL Rhode Island Holdings, LLC on 25 May 2022 for cash consideration of £3.1 billion ($3.9 billion). NECO was part of our New England operating segment and is a retail distribution company providing electricity and gas to customers in Rhode Island. The associated assets and liabilities were presented as held for sale in the consolidated financial statements with effect from the year ended 31 March 2021.

10. Assets held for sale and discontinued operations continued

(a) Assets held for sale continued

As NECO did not represent a separate major line of business or geographical area of operation, it did not meet the criteria for classification as a discontinued operation and therefore its results are not separately disclosed on the face of the income statement. Financial information relating to the gain arising on the disposal of NECO is set out below:

	£m
Goodwill	616
Intangible assets	4
Property, plant and equipment	3,363
Trade and other receivables	215
Cash and cash equivalents	113
Other assets	165
Total assets on disposal	4,476
Borrowings	(1,230)
Pension liabilities	(19)
Other liabilities	(552)
Total liabilities on disposal	(1,801)
Net assets on disposal	2,675
Satisfied by:	
Cash proceeds	3,081
Total consideration received	3,081
Less:	
Financing costs[1]	(40)
Gain on sale before tax and reclassification of foreign currency translation reserve	366
Reclassification of foreign currency translation reserve[2]	145
Tax[3]	(231)
Post-tax gain on disposal	280

1. Relates to the transfer of hedge losses previously deferred within equity in respect of foreign exchange forward contracts which the Group entered into in order to manage its exposure to the foreign currency cash proceeds due from PPL Rhode Island Holdings, LLC.
2. The reclassification of the foreign currency translation reserve attributable to NECO comprises a gain of £496 million relating to the retranslation of NECO's operations offset by a loss of £351 million relating to borrowings, cross-currency swaps and foreign exchange forward contracts used to hedge the Group's net investment in NECO.
3. The high effective tax rate arising on the gain on sale is primarily a result of the tax base of the assets being significantly lower than the accounting base which includes non-deductible goodwill.

No impairment losses were recognised upon remeasurement of the assets and liabilities prior to classification as held for sale. NECO generated profit after tax of £84 million for the period until 25 May 2022 (2022: £237 million; 2021: £104 million) which was recognised within continuing operations.

10. Assets held for sale and discontinued operations continued

(a) Assets held for sale continued

Gain on disposal of the UK Gas Transmission business

On 27 March 2022, the Group entered into an Acquisition Agreement to sell 100% of the UK Gas Transmission business in exchange for £4.0 billion of cash consideration and a 40% interest in a newly incorporated company, GasT TopCo Limited. The Group subsequently completed the sale on 31 January 2023. The other 60% interest in GasT TopCo Limited is owned by Macquarie Infrastructure and Real Assets (MIRA) and British Columbia Investment Management Corporation (BCI) (together, the 'Consortium').

The Group classified the associated assets and liabilities of the business as held for sale in the consolidated statement of financial position as at 31 August 2021, when the sale was considered to be highly probable following management approval of the sale timetable and communication thereof to potential buyers. Accordingly, the UK Gas Transmission business was also reported as held for sale in the consolidated statement of financial position as at 31 March 2022.

Financial information relating to the gain arising on the disposal of the UK Gas Transmission business is set out below:

	£m
Intangible assets	180
Property, plant and equipment	4,981
Trade and other receivables	458
Pension assets	341
Cash and cash equivalents	5
Financing derivatives	96
Other assets	338
Total assets	6,399
Borrowings	(4,276)
Deferred tax liabilities	(800)
Other liabilities	(711)
Total liabilities	(5,787)
Net assets on disposal	612
Satisfied by:	
Cash proceeds	4,032
Associate at fair value	1,443
Total consideration received	5,475
Less:	
Transaction costs	(60)
Gain on disposal	4,803

No impairment losses were recognised upon remeasurement of the assets and liabilities prior to classification as held for sale. The portion of the gain on disposal related to the remeasurement of the Group's retained non-controlling investment to fair value is £1,198 million.

GasT TopCo Limited is an unlisted entity, and so no quoted price exists. The fair value has been determined with reference to the equity value of GasT TopCo Limited, derived through a valuation exercise performed under the discount dividend model (DDM) methodology. The DDM methodology involves estimating the future cash flows expected to be generated by the associate and discounting those back to their present value using an appropriate discount rate. Management has determined that the DDM methodology provides a reasonable estimate of the fair value of the associate interest at the date of acquisition.

On 27 March 2022, the Group also entered into an FAA with the Consortium. The FAA gives the Consortium the option to purchase the Group's 40% equity interest in GasT TopCo Limited for £1.4 billion plus an annualised escalation factor. The FAA became binding following the settlement of the Acquisition Agreement and is exercisable in the period between 1 May and 31 July 2023. The window can further be deferred at the Group's discretion by three months.

The FAA is a Level 3 derivative, which is accounted for at fair value, and the assumptions which are used to determine fair value are specific to the contract and not readily observable in active markets. Significant unobservable inputs include the valuation and volatility of GasT TopCo Limited's unlisted equity. These inputs are used as part of a Black-Scholes option pricing model to produce the reported valuation. The fair value of the option as at 31 March 2023 is £109 million (31 March 2022: £nil). The FAA derivative will be extinguished when the option is either exercised or lapses. The option cannot be cash settled.

The Group's interest in GasT TopCo Limited was immediately classified as held for sale with effect from 31 January 2023 together with the FAA derivative. The Group has not applied equity accounting in relation to its investment in GasT TopCo Limited.

10. Assets held for sale and discontinued operations continued

(b) Discontinued operations

UK Gas Transmission

As UK Gas Transmission represented a major separate line of business, the business was also classified as a discontinued operation in the prior year. The results of the business are shown separately from the continuing business for all periods presented on the face of the income statement as a discontinued operation. This is also reflected in the statement of comprehensive income, as well as earnings per share (EPS) being shown split between continuing and discontinued operations.

The summary income statement for the UK Gas Transmission business for the period until 31 January 2023 and the years ended 31 March 2022 and 2021 is as follows:

	Before exceptional items and remeasurements			Exceptional items and remeasurements			Total		
	2023 £m	2022 £m	2021 £m	**2023 £m**	2022 £m	2021 £m	**2023 £m**	2022 £m	2021 £m
Discontinued operations									
Revenue	**1,604**	1,362	1,114	**–**	–	–	**1,604**	1,362	1,114
Other operating costs	**(890)**	(708)	(615)	**1**	(17)	(5)	**(889)**	(725)	(620)
Operating profit	**714**	654	499	**1**	(17)	(5)	**715**	637	494
Finance income	**15**	–	–	**6**	–	–	**21**	–	–
Finance costs[1]	**(310)**	(218)	(77)	**(53)**	(12)	2	**(363)**	(230)	(75)
Profit before tax	**419**	436	422	**(46)**	(29)	(3)	**373**	407	419
Tax[2]	**(99)**	(92)	(82)	**6**	(144)	–	**(93)**	(236)	(82)
Profit after tax from discontinued operations	**320**	344	340	**(40)**	(173)	(3)	**280**	171	337
Gain on disposal	**–**	–	–	**4,803**	–	–	**4,803**	–	–
Total profit after tax from discontinued operations	**320**	344	340	**4,763**	(173)	(3)	**5,083**	171	337

1. Finance costs from discontinued operations include principal accretion of inflation-linked liabilities in the UK Gas Transmission business of £268 million (2022: £158 million; 2021: £38 million). Exceptional finance costs in the current year relate to the remeasurement of the FAA derivative.
2. Of the £144 million exceptional tax charge in the year ended 31 March 2022, £145 million relates to an increase in deferred tax liability due to the change in the UK corporation tax rate.

The summary statement of comprehensive income for discontinued operations for the period until 31 January 2023 and the years ended 31 March 2022 and 2021 is as follows:

	2023 £m	2022 £m	2021 £m
Profit after tax from discontinued operations	**5,083**	171	337
Other comprehensive (loss)/income from discontinued operations			
Items from discontinued operations that will never be reclassified to profit or loss:			
Remeasurement (losses)/gains on pension assets and post-retirement benefit obligations	**(313)**	309	(250)
Net losses on financial liability designated at fair value through profit and loss attributable to changes in own credit risk	**–**	(1)	(11)
Net losses in respect of cash flow hedging of capital expenditure	**–**	–	(2)
Tax on items that will never be reclassified to profit or loss	**78**	(94)	50
Total (losses)/gains from discontinued operations that will never be reclassified to profit or loss	**(235)**	214	(213)
Items from discontinued operations that may be reclassified subsequently to profit or loss:			
Net gains in respect of cash flow hedges	**6**	1	3
Net gains/(losses) in respect of cost of hedging	**4**	(4)	(6)
Tax on items that may be reclassified subsequently to profit or loss	**(2)**	–	–
Total gains/(losses) from discontinued operations that may be reclassified subsequently to profit or loss	**8**	(3)	(3)
Other comprehensive (loss)/income for the year, net of tax from discontinued operations	**(227)**	211	(216)
Total comprehensive income for the year from discontinued operations	**4,856**	382	121

Details of the cash flows relating to discontinued operations are set out within the consolidated cash flow statement.

11. Goodwill

Goodwill represents the excess of what we paid to acquire businesses over the fair value of their net assets at the acquisition date. We assess whether goodwill is recoverable by performing an impairment review annually or more frequently if events or changes in circumstances indicate a potential impairment.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing exchange rate. Goodwill is allocated to cash-generating units (CGUs) and this allocation is made to those CGUs that are expected to benefit from the acquisition in which the goodwill arose.

Impairment is recognised where there is a difference between the carrying value of the CGU and the estimated recoverable amount of the CGU to which that goodwill has been allocated. Any impairment is recognised immediately in the income statement and is not subsequently reversed. Any impairment loss is first allocated to the carrying value of the goodwill and then to the other assets within the CGU. Recoverable amount is defined as the higher of fair value less costs to sell and estimated value-in-use at the date the impairment review is undertaken. Value-in-use represents the present value of expected future cash flows, discounted using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

	Total £m
Net book value at 1 April 2021	4,588
Exchange adjustments	223
Acquisition of NGED (note 37)	4,721
Net book value at 1 April 2022	9,532
Exchange adjustments	315
Net book value at 31 March 2023	**9,847**

There was no significant accumulated impairment charge as at 31 March 2023 or 31 March 2022.

Impairment review of goodwill and indefinite-lived intangibles

Goodwill and indefinite-lived intangibles (see note 12) are reviewed annually for impairment and the recoverability is assessed by comparing the carrying amount of our operations with the expected recoverable amount on a value-in-use basis which uses pre-financing and pre-tax cash flow projections based on the Group's financial plans, approved by the Directors, as a starting point. See below for a summary of which operations our goodwill and indefinite-lived intangibles are allocated to:

CGU or group of CGUs	2023 £m	2022 £m
Goodwill:		
National Grid Ventures Renewables	**163**	150
New England	**1,609**	1,510
New York	**3,354**	3,151
UK Electricity Distribution[1]	**4,721**	4,721
Total goodwill	**9,847**	9,532
Indefinite-lived intangibles (regulatory licences related to UK Electricity Distribution):		
West Midlands	**518**	518
East Midlands	**519**	519
South Wales	**257**	257
South West	**420**	420
Total indefinite-lived intangibles	**1,714**	1,714

1. This is a combination of the West Midlands, East Midlands, South Wales and South West CGUs, reflecting the level at which the goodwill is monitored.

In each assessment, the value-in-use has been calculated assuming a stable regulatory framework and is based on projections that incorporate our best estimates of future cash flows, including costs, changes in commodity prices, future rates and growth. Such projections reflect our current regulatory agreements and allow for future agreements and recovery of investment, including those related to achieving the net zero plans of the jurisdictions that we operate in. Our plans have proved to be reliable guides in the past and the Directors believe the estimates are appropriate.

11. Goodwill continued

(a) Cash flow periods, terminal value and discount rate assumptions

We select cash flow durations longer than five years, when our forecasts are considered reliable. The cash flow durations selected reflect our knowledge and understanding of the regulatory environments in which we operate, and most significantly, where markets have legislated decarbonisation commitments by 2050 we may utilise longer cash flow forecasts that reflect the investment required to deliver those commitments before applying a terminal value at the point those commitments are due to be fulfilled and market growth is expected to stabilise. For our regulated UK ED operations, we consider cash flow durations that run until 2050, reflecting the expected investment required in the network, in excess of economy-wide long-term growth rates in order to deliver the energy transition. Total expenditure forecasts, comprising capital and operating expenditure, are estimated with reference to the Group's strategic modelling and expectations around a reasonable energy transition based upon the policies and commitments in place today. Cash flows related to uncommitted future restructurings and enhancement capital expenditure (beyond activity to reinforce the network and build new connections) are excluded from the projections. For our regulated US operations (New York and New England CGUs), we use a five-year cash flow forecast.

For our UK ED business, a nominal terminal growth rate of 2.6% (2022: 2.5%) is assumed upon the terminal year cash flows, reflecting management's best view, based on market and operational experience, of the expected long-term growth in the relevant market. For our regulated US operations, due to differences in the regulatory framework and the combination of gas and electricity networks, we apply a growth rate of 2.5% (2022: 2.3%). This has been determined with regard to data on industry growth projections, specifically related to the energy transition, and projected growth in real Gross Domestic Product (GDP) for the territory within which the CGU is based.

Pre-tax cash flows are discounted by applying a pre-tax discount rate reflecting the time value of money and the risks specific to the group of assets. In practice, the post-tax discount rate for the group of assets in question is derived from a post-tax weighted average cost of capital. The assumptions used in the calculation of the weighted average cost of capital are benchmarked to externally available data. The determined discount rate is independent of the entity's capital structure and reflects a market participant's view of a risk adjusted discount rate specific to the CGU or group of CGUs. The post-tax discount rate is then grossed up to a pre-tax discount rate that is applied to pre-tax cash flows. The pre-tax discount rates used for the year ended 31 March 2023 were as follows: UK ED Group 5.6% (2022: 5.2%); UK ED DNOs 5.6% (2022: 4.9%); New York 6.4% (2022: 5.5%); New England 6.6% (2022: 5.6%); and NGV Renewables 8.6% (2022: 7.5%).

(b) Key inputs and sensitivity analysis

In assessing the carrying value of goodwill and licences, we have sensitised our forecasts to factor in adjustments to key inputs to each model. Whilst regulatory licences are tested for impairment before we test goodwill, we consider the sensitivity for goodwill attributable to UK ED and our regulated US operations and those related to licences separately below.

Goodwill – UK ED, regulated US operations (New York and New England) and NGV Renewables

While key assumptions underpinning the goodwill valuations will change over time, the Directors consider that no reasonably foreseeable change would result in an impairment of goodwill. This is in view of the long-term nature of the key assumptions, including those used in determining an appropriate discount rate, and specifically the risk-free rate and total market return, the margin by which the estimated value-in-use exceeds the carrying amount and the nature of the regulatory regimes that UK ED and our regulated US businesses operate under. This remains the case even after taking into account the short-term effects of the volatility in wider macroeconomic factors. No reasonably possible changes to inputs to the impairment test performed over goodwill attributable to NGV Renewables were identified as resulting in an impairment.

Indefinite-lived regulatory licences – UK ED

No reasonably possible changes to inputs to the impairment test performed over the South West, East Midlands, West Midlands and South Wales Distribution Network Operator CGUs were identified as resulting in an impairment.

12. Other intangible assets

Other intangible assets include software which is written down (amortised) over the period we expect to receive a benefit from the asset. An amortisation expense is charged to the income statement to reflect the reduced value of the asset over time. Amortisation is calculated by estimating the number of years we expect the asset to be used (useful economic life or UEL) and charging the cost of the asset to the income statement equally over this period.

Indefinite-lived intangibles comprise regulatory licences for which there is no foreseeable limit to the period over which they are expected to generate net cash inflows. These assets are considered to have an indefinite life and are not amortised but are subject to a review for impairment annually, or more frequently if events or circumstances indicate a potential impairment. Any impairment is charged to the income statement as it arises.

Identifiable intangible assets are recorded at cost less accumulated amortisation and any provision for impairment, with the exception of regulatory licences that are assessed to have indefinite lives and are therefore tested annually for impairment (see note 11 for details of impairment tests performed over indefinite-lived intangible assets). Other intangible assets are tested for impairment only if there is an indication that the carrying value of the assets may have been impaired. Impairments of assets are calculated as the difference between the carrying value of the asset and the recoverable amount, if lower. Where such an asset does not generate cash flows that are independent from other assets, the recoverable amount of the CGU to which that asset belongs is estimated. Impairments are recognised in the consolidated income statement within other operating costs. Any assets which suffered impairment in a previous period are reviewed for possible reversal of the impairment at each reporting date.

The Group's regulatory licences relate to electricity distribution licences acquired following the Group's acquisition of NGED in the prior year (see note 37). The licences provide the right to operate and invest in the relevant network that operates as a monopoly in the licensed geographical area. Once granted by Ofgem, the licence is issued to a licensee on the basis that it remains active into perpetuity. On that basis, the value attributed to the electricity distribution network licence assets is considered to have an indefinite useful life.

Internally generated intangible assets, such as software, are recognised only if: i) an asset is created that can be identified; ii) it is probable that the asset created will generate future economic benefits; and iii) the development cost of the asset can be measured reliably. Where no internally generated intangible asset can be recognised, development expenditure is recorded as an expense in the period in which it is incurred.

Cloud computing arrangements are reviewed to determine if the Group has control of the software intangible asset. Control is considered to exist where the Group has the right to take possession of the software and run it on its own or a third party's computer infrastructure or if the Group has exclusive rights to use the software such that the supplier is unable to make the software available to other customers.

Costs relating to configuring or customising the software in a cloud computing arrangement are assessed to determine if there is a separate intangible asset over which the Group has control. If an asset is identified, it is capitalised and amortised over the useful economic life of the asset. To the extent that no separate intangible asset is identified, then the costs are either expensed when incurred or recognised as a prepayment and spread over the term of the arrangement if the costs are concluded to not be distinct.

The accounting for costs incurred in cloud computing arrangements represented the application of new accounting guidance for the Group for the year ended 31 March 2022. Accordingly, certain costs which were previously capitalised in respect of the Group's cloud computing arrangements were expensed in the prior year.

12. Other intangible assets continued

Other than regulatory licences, intangible assets are amortised on a straight-line basis over their estimated useful economic lives. Amortisation periods for other intangible assets are:

	Years
Software	3 to 10
Regulatory licences	Indefinite

	Regulatory licences[1] £m	Software £m	Assets in the course of construction £m	Total £m
Cost at 1 April 2021	—	2,120	686	2,806
Exchange adjustments	—	69	11	80
Additions	—	15	513	528
Acquisition of NGED (note 37)	1,714	49	—	1,763
Disposals	—	(7)	—	(7)
Reclassifications[2]	—	260	(302)	(42)
Reclassification to held for sale (note 10)	—	(431)	(38)	(469)
Cost at 1 April 2022	1,714	2,075	870	4,659
Exchange adjustments	—	79	32	111
Additions	—	34	544	578
Disposals	—	(17)	—	(17)
Reclassifications[2,3]	—	895	(885)	10
Cost at 31 March 2023	1,714	3,066	561	5,341
Accumulated amortisation at 1 April 2021	—	(1,363)	—	(1,363)
Exchange adjustments	—	(33)	—	(33)
Amortisation charge for the year	—	(297)	—	(297)
Impairment[4]	—	—	(10)	(10)
Accumulated amortisation of disposals	—	7	—	7
Reclassification to held for sale (note 10)	—	309	—	309
Accumulated amortisation at 1 April 2022	—	(1,377)	(10)	(1,387)
Exchange adjustments	—	(51)	—	(51)
Amortisation charge for the year	—	(291)	—	(291)
Accumulated amortisation of disposals	—	15	—	15
Reclassifications[3]	—	(23)	—	(23)
Accumulated amortisation at 31 March 2023	—	(1,727)	(10)	(1,737)
Net book value at 31 March 2023[5]	**1,714**	**1,339**	**551**	**3,604**
Net book value at 31 March 2022	1,714	698	860	3,272

1. Relates to the licence intangibles acquired as part of the acquisition of NGED in the prior year (see note 37). The Group assesses its indefinite-lived intangible assets for impairment annually (see note 11).
2. Reclassifications includes amounts transferred to property, plant and equipment (see note 13).
3. Amounts recognised in the year include adjustments relating to a misclassification between cost and accumulated depreciation in the prior year.
4. Depreciation of assets in the course of construction relate to impairment provision adjustments recognised in the prior year.
5. The Group has capitalised £370 million (2022: £366 million) in relation to the Gas Business Enablement system in the US, of which £369 million (2022: £152 million) is in service and is being amortised over 10 years, with the remainder included within assets in the course of construction. A further £87 million (2022: £103 million) relates to our new UK general ledger system within software and is being amortised over 10 years, having been reclassified from assets in the course of construction to software assets in the prior year.

13. Property, plant and equipment

Property, plant and equipment are the physical assets controlled by us. The cost of these assets primarily represents the amount initially paid for them or the fair value on the date of acquisition of a business. Cost includes both their purchase price and the construction and other costs associated with getting them ready for operation. A depreciation expense is charged to the income statement to reflect annual wear and tear and the reduced value of the asset over time. Depreciation is calculated by estimating the number of years we expect the asset to be used (useful economic life or UEL) and charging the cost of the asset to the income statement equally over this period.

We operate an energy networks business and therefore have a significant physical asset base. We continue to invest in our networks to maintain reliability, create new customer connections and ensure our networks are flexible, resilient and prepared for the transition to net zero. Our business plan envisages these additional investments will be funded through a mixture of cash generated from operations and the issue of new debt.

Property, plant and equipment is recorded at cost, less accumulated depreciation and any impairment losses. Cost includes the purchase price of the asset; any payroll and finance costs incurred which are directly attributable to the construction of property, plant and equipment together with an appropriate portion of overheads which are directly linked to the capital work performed; and the cost of any associated asset retirement obligations.

Property, plant and equipment includes assets in which the Group's interest comprises legally protected statutory or contractual rights of use. Additions represent the purchase or construction of new assets, including capital expenditure for safety and environmental assets, and extensions to, enhancements to, or replacement of, existing assets. All costs associated with projects or activities which have not been fully commissioned at the period end are classified within assets in the course of construction.

Items within property, plant and equipment are tested for impairment only if there is some indication that the carrying value of the assets may have been impaired. Impairments of assets are calculated as the difference between the carrying value of the asset and the recoverable amount, if lower. Where such an asset does not generate cash flows that are independent from other assets, the recoverable amount of the cash-generating unit to which that asset belongs is estimated. Impairments are recognised in the income statement and if immaterial are included within the depreciation charge for the year.

(a) Analysis of property, plant and equipment

	Land and buildings £m	Plant and machinery £m	Assets in the course of construction £m	Motor vehicles and office equipment £m	Total £m
Cost at 1 April 2021	3,752	56,061	5,221	1,018	66,052
Exchange adjustments	97	1,627	111	37	1,872
Additions	22	926	4,843	129	5,920
Acquisition of NGED (note 37)	200	9,512	185	154	10,051
Disposals	(165)	(367)	—	(88)	(620)
Reclassifications[1]	62	4,063	(4,133)	89	81
Reclassification to held for sale (note 10)	(309)	(8,800)	(640)	(267)	(10,016)
Cost at 1 April 2022	3,659	63,022	5,587	1,072	73,340
Exchange adjustments	126	2,073	156	50	2,405
Additions	158	1,196	5,345	154	6,853
Disposals	(163)	(331)	(4)	(156)	(654)
Adjustment for change in discount rate on decommissioning provisions (note 26)	—	(36)	(12)	—	(48)
Reclassifications[1,2]	286	3,841	(4,312)	102	(83)
Cost at 31 March 2023	4,066	69,765	6,760	1,222	81,813
Accumulated depreciation at 1 April 2021	(876)	(17,482)	—	(651)	(19,009)
Exchange adjustments	(20)	(351)	—	(23)	(394)
Depreciation charge for the year[3]	(114)	(1,300)	(48)	(167)	(1,629)
Disposals	29	311	—	88	428
Reclassifications[1]	15	(40)	(18)	2	(41)
Reclassification to held for sale (note 10)	193	4,421	6	217	4,837
Accumulated depreciation at 1 April 2022	(773)	(14,441)	(60)	(534)	(15,808)
Exchange adjustments	(30)	(444)	—	(32)	(506)
Depreciation charge for the year[3]	(122)	(1,459)	(1)	(183)	(1,765)
Disposals	127	311	2	152	592
Reclassifications[1,2]	4	107	4	(8)	107
Accumulated depreciation at 31 March 2023	(794)	(15,926)	(55)	(605)	(17,380)
Net book value at 31 March 2023	**3,272**	**53,839**	**6,705**	**617**	**64,433**
Net book value at 31 March 2022	2,886	48,581	5,527	538	57,532

1. Represents amounts transferred between categories, (to)/from other intangible assets (see note 12), from inventories and reclassifications between cost and accumulated depreciation.
2. Amounts recognised in the year include adjustments relating to prior year misclassifications between cost and accumulated depreciation.
3. Depreciation of assets in the course of construction relates to impairment provision adjustments.

13. Property, plant and equipment continued

(b) Asset useful economic lives

No depreciation is provided on freehold land or assets in the course of construction. Other items of property, plant and equipment are depreciated, on a straight-line basis, at rates estimated to write off their book values over their estimated UELs. In assessing UELs, consideration is given to any contractual arrangements and operational requirements relating to particular assets. The assessments of estimated UELs and residual values of assets are performed annually.

Unless otherwise determined by operational requirements, the depreciation periods for the principal categories of property, plant and equipment are shown in the table below split between the UK and US, along with the weighted average remaining UEL for each class of property, plant and equipment (which is calculated by applying the annual depreciation charge per class of asset to the net book value of that class of asset).

	Years		
	UK	US	Weighted average remaining UEL
Freehold and leasehold buildings	up to 60	up to 100	40
Plant and machinery:			
Electricity transmission plant and wires	up to 100	22 to 85	31
Electricity distribution plant	14 to 99	5 to 85	45
Electricity generation plant	n/a	12 to 93	10
Interconnector plant and other	5 to 70	5 to 60	25
Gas plant – mains, services and regulating equipment	n/a	25 to 95	52
Gas plant – storage	5 to 25	5 to 65	11
Gas plant – meters	15	14 to 36	22
Motor vehicles and office equipment	up to 30	up to 32	3

(c) Gas asset lives

The role that our US gas networks play in the pathway to achieving the greenhouse gas emissions reductions targets set in the jurisdictions in which we operate is currently uncertain. In the year, policymakers in New York and Massachusetts have indicated an increase in electrification and a strategic downsizing of gas networks in their formal plans to meet their respective decarbonisation targets. As a result, there is a risk that the UELs of certain elements of our gas networks may be shortened in line with future legislation.

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, although the scale and purpose for which the networks will be used is dependent on technological, legal and regulatory developments.

In the US, our gas distribution asset lives are assessed as part of detailed depreciation studies completed as part of each separate rate proceeding. Depreciation studies consider the physical condition of assets and the expected operational life of an asset. We believe these assessments are our best estimate of the UEL of our gas network assets in the US.

The weighted average remaining UEL for our US gas distribution fixed asset base is circa 52 years; however, a sizeable proportion of our assets are assumed to have UELs which extend beyond 2080. We continue to believe the lives identified by rate proceedings are the best estimate of the assets' UELs, although we continue to keep this assumption under review as we gain more certainty about policy-driven legislation. We continue to actively engage and support our regulators to enable the clean energy transition in a safe, reliable and affordable way.

Asset depreciation lives feed directly into our US regulatory recovery mechanisms, such that any shortening of asset lives and regulatory recovery periods as agreed with regulators should be recoverable through future rates, subject to agreement, over future periods, as part of wider considerations around ensuring the continuing affordability of gas in our service territories.

Given the uncertainty described relating to the UELs of our gas assets, below we provide a sensitivity on the depreciation charge for our New York and New England segments were a shorter UEL presumed. It should be noted that all net zero pathways suggest some role of gas in heating buildings beyond 2050, so our sensitivity analysis for 2050 illustrates an unlikely worst-case scenario:

	Increase in depreciation expense for the year ended 31 March 2023		Increase in depreciation expense for the year ended 31 March 2022	
	New York £m	**New England £m**	New York £m	New England £m
UELs limited to 2050	**185**	**54**	140	40
UELs limited to 2060	**90**	**21**	67	15
UELs limited to 2070	**42**	**3**	31	1

Note that this sensitivity calculation excludes any assumptions regarding the residual value for our asset base and the effect that shortening asset depreciation lives would be expected to have on our regulatory recovery mechanisms. In the event that any of the US gas distribution assets are stranded, the Group would expect to recover the associated costs. While recovery is not guaranteed and is determined by regulators in the US, there are precedents for stranded asset cost recovery for US utility companies.

13. Property, plant and equipment continued

(d) Right-of-use assets

The Group leases various properties, land, equipment and cars. New lease arrangements entered into are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. The right-of-use asset and associated lease liability arising from a lease are initially measured at the present value of the lease payments expected over the lease term. The lease payments include fixed payments, any variable lease payments dependent on an index or a rate, and any break fees or renewal option costs that we are reasonably certain to incur. The discount rate applied is the rate implicit in the lease or, if that is not available, the incremental rate of borrowing for a similar term and similar security. This is determined based on observable data for borrowing rates for the specific Group entity that has entered into the lease, with specific adjustments for the term of the lease and any lease-specific risk premium. The lease term takes account of extension options that are at our option if we are reasonably certain to exercise the option and any lease termination options unless we are reasonably certain not to exercise the option. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the income statement over the lease period using the effective interest rate method. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as computers), the Group continues to recognise a lease expense on a straight-line basis.

The table below shows the movements in the net book value of right-of-use assets included within property, plant and equipment at 31 March 2023 and 31 March 2022, split by category. The associated lease liabilities are disclosed in note 21.

	Land and buildings £m	Plant and machinery £m	Assets in the course of construction £m	Motor vehicles and office equipment £m	Total £m
Net book value at 1 April 2021	365	81	—	184	630
Exchange adjustments	10	1	—	10	21
Additions	14	2	—	88	104
Acquisition of NGED (note 37)	7	2	—	—	9
Reclassification to held for sale (note 10)	(7)	—	—	(4)	(11)
Modifications of leases[1]	(122)	—	—	—	(122)
Disposals	(2)	—	—	(1)	(3)
Depreciation charge for the year	(40)	(16)	—	(67)	(123)
Net book value at 31 March 2022	225	70	—	210	505
Exchange adjustments	10	1	—	13	24
Additions	101	97	—	88	286
Disposals	(13)	—	—	(1)	(14)
Depreciation charge for the year	(42)	(18)	—	(70)	(130)
Net book value at 31 March 2023	**281**	**150**	**—**	**240**	**671**

1. The Group entered into an agreement to reduce the lease term of its New England corporate office, Reservoir Woods, with effect from October 2021. The existing lease liability and right-of-use asset were remeasured based on the terms of the modified lease in the year ended 31 March 2022.

The following balances have been included in the income statement for the years ended 31 March 2023 and 31 March 2022 in respect of right-of-use assets:

	2023 £m	2022 £m
Included within net finance income and costs:		
Interest expense on lease liabilities	**(24)**	(18)
Included within revenue:		
Lease income[1]	**409**	385
Included within operating expenses:		
Expense relating to short-term and low-value leases	**(19)**	(14)

1. Included within lease income is £394 million (2022: £374 million) of variable lease payments, the majority of which relates to the power supply arrangement entered into with LIPA (see note 3).

14. Other non-current assets

Other non-current assets include assets that do not fall into specific non-current asset categories (such as goodwill or property, plant and equipment) where the benefit to be received from the asset is not due to be received until after 31 March 2023.

	2023 £m	2022 £m
Other receivables[1]	**496**	297
Non-current tax assets	**—**	6
Prepayments	**71**	—
	567	303

1. Primarily comprises amounts due in relation to property sales to The Berkeley Group which will be received until 2031.

15. Financial and other investments

The Group holds a range of financial and other investments. These investments include short-term money market funds, quoted investments in equities or bonds of other companies, investments in our venture capital portfolio (National Grid Partners), bank deposits with a maturity of greater than three months, and investments that can not be readily used in operations, principally collateral deposited in relation to derivatives.

The classification of each investment held by the Group is determined based on two main factors:

- its contractual cash flows – whether the asset's cash flows are solely payments of the principal and interest on the financial asset on pre-determined dates or whether the cash flows are determined by other factors such as the performance of a company; and
- the business model for holding the investments – whether the intention is to hold onto the investment for the longer term (collect the contractual cash flows) or to sell the asset with the intention of managing any gain or loss on sale or to manage any liquidity requirements.

The three categories of financial and other investments are as follows:

- Financial assets at amortised cost – debt instruments that have contractual cash flows that are solely payments of principal and interest, and which are held within a business model whose objective is to collect contractual cash flows, are held at amortised cost. This category includes our receivables in relation to deposits and collateral;
- FVOCI debt and other investments – debt investments, such as bonds, that have contractual cash flows that are solely payments of principal and interest, and which are held within a business model whose objective is both to collect the contractual cash flows and to sell the debt instruments, are measured at fair value through other comprehensive income (FVOCI), with gains or losses recognised in the consolidated statement of comprehensive income instead of through the income statement. On disposal, any gains or losses are recognised within finance income in the income statement (see note 6). Other investments include insurance contracts which are held to back the present value of unfunded pension liabilities (see note 25); and
- FVTPL investments – other financial investments are subsequently measured at fair value with any gains or losses recognised in the income statement (FVTPL). This primarily comprises our money market funds, insurance company fund investments and corporate venture capital investments held by National Grid Partners.

Financial and other investments are initially recognised on trade date. Subsequent to initial recognition, the fair values of financial assets that are quoted in active markets are based on bid prices. When independent prices are not available, fair values are determined by applying valuation techniques used by the relevant markets including observable market data where possible (see note 32(g) for further details).

15. Financial and other investments continued

	2023 £m	2022 £m
Non-current		
FVOCI debt and other investments	**407**	413
FVTPL investments	**452**	417
	859	830
Current		
FVTPL investments	**1,764**	2,292
Financial assets at amortised cost	**841**	853
	2,605	3,145
	3,464	3,975
Financial and other investments include the following:		
Investments in short-term money market funds	**1,449**	1,936
Investments held by National Grid Partners	**346**	309
Investments in Sunrun	**106**	109
Balances that are restricted or not readily used in operations:		
Collateral[1]	**764**	806
Insurance company and non-qualified plan investments	**490**	534
Cash surrender value of life insurance policies	**232**	234
Other investments	**77**	47
	3,464	3,975

1. The collateral balance includes £734 million (2022: £802 million) of collateral placed with counterparties with whom we have entered into a credit support annex to the International Swaps and Derivatives Association (ISDA) Master Agreement, £25 million (2022: £4 million) of restricted amounts allocated for specific projects within National Grid Electricity System Operator and National Grid Electricity Transmission plc and £5 million (2022: £5 million) insurance captive letters of credit.

FVTPL and FVOCI investments are recorded at fair value. The carrying value of current financial assets at amortised cost approximates their fair values, primarily due to short-dated maturities. The exposure to credit risk at the reporting date is the fair value of the financial investments. For further information on our credit risk, refer to note 32(a).

For the purposes of impairment assessment, the investments in bonds are considered to be low risk as they are investment grade securities; life insurance policies are held with regulated insurance companies; and deposits, collateral receivable and other financial assets at amortised cost are investment grade. All financial assets held at FVOCI or amortised cost are therefore considered to have low credit risk and have an immaterial impairment loss allowance equal to 12-month expected credit losses.

In determining the expected credit losses for these assets, some or all of the following information has been considered: credit ratings, the financial position of counterparties, the future prospects of the relevant industries and general economic forecasts.

No FVOCI or amortised cost financial assets have had modified cash flows during the period. There has been no change in the estimation techniques or significant assumptions made during the year in assessing the loss allowance for these financial assets. There were no significant movements in the gross carrying value of financial assets during the year that contribute to changes in the loss allowance. No collateral is held in respect of any of the financial investments in the above table. No balances are more than 30 days past due and no balances were written off during the year.

16. Investments in joint ventures and associates

Investments in joint ventures and associates represent businesses we do not control but over which we exercise joint control or significant influence. They are accounted for using the equity method. A joint venture is an arrangement established to engage in economic activity, which the Group jointly controls with other parties and has rights to a share of the net assets of the arrangement. An associate is an entity which is neither a subsidiary nor a joint venture, but over which the Group has significant influence.

	2023			2022		
	Associates £m	Joint ventures £m	Total £m	Associates £m	Joint ventures £m	Total £m
Share of net assets at 1 April	277	961	1,238	229	638	867
Exchange adjustments	20	52	72	6	19	25
Additions	40	157	197	17	469	486
Share of post-tax results for the year	9	162	171	43	49	92
Share of other comprehensive income of associates, net of tax	1	—	1	1	—	1
Dividends received	(30)	(152)	(182)	(35)	(123)	(158)
Disposals	(167)	—	(167)	—	(50)	(50)
Other movements[1]	4	(34)	(30)	16	(41)	(25)
Share of net assets at 31 March	154	1,146	1,300	277	961	1,238

1. Other movements relate to tax liabilities for US and certain UK associates and joint ventures which are borne by the Group and the elimination of profits arising from sales to the Group's share of joint ventures.

A list of joint ventures and associates including the name and proportion of ownership is provided in note 34. Transactions with and outstanding balances with joint ventures and associates are shown in note 31. The joint ventures and associates have no significant contingent liabilities to which the Group is exposed, and the Group has no significant contingent liabilities in relation to its interests in the joint ventures and associates. The Group has capital commitments of £412 million (2022: £714 million) in relation to joint ventures and associates.

On 7 October 2022, the Group disposed of its 26.25% minority ownership interest in the Millennium Pipeline Company LLC to DT Midstream, an existing owner, in exchange for £497 million ($552 million) cash consideration. The receipt of cash has been recognised within net cash used in investing activities within the cash flow statement. The Group recognised a gain on disposal of £335 million within other operating income and this has been classified as exceptional in the year (see note 5). The gain on disposal includes a gain of £47 million attributable to foreign currency exchange differences, offset by a loss of £22 million relating to net investment hedge reserves, which were recycled to the income statement.

On 15 March 2022, the Group disposed of its entire 50% interest in St William Homes LLP to The Berkeley Group for cash consideration of £413 million. The receipt of cash was recognised within net cash used in investing activities within the cash flow statement. In the prior year the Group recognised a gain on disposal of £228 million within other operating income and released to revenue deferred income of £189 million which related to deferred profits on previous property sales to St William Homes LLP. The gain on disposal and the release of deferred income were both classified as exceptional (see note 5).

The following table describes the Group's material joint ventures and associates at 31 March 2023:

Joint venture	% stake	
BritNed Development Limited[1]	50%	BritNed is a joint venture with the Dutch transmission system operator, TenneT, and operates the subsea electricity interconnector between Great Britain and the Netherlands, commissioned in 2011.
Nemo Link Limited[1]	50%	Nemo is a joint venture with the Belgian transmission operator, Elia, and is a subsea electricity interconnector between Great Britain and Belgium, which became operational on 31 January 2019.
Emerald Energy Venture LLC	51%	Emerald is a joint venture with Washington State Investment Board and builds and operates wind and solar assets. Emerald was acquired on 11 July 2019.
Community Offshore Wind, LLC	27.3%	Community Offshore Wind (formerly known as Bight Wind Holdings LLC) is a joint venture with RWE Renewables. Following the successful win at auction of six seabed leases in northeastern US in the prior year, Community Offshore Wind commenced the development of an offshore wind project which will play a key role in supplying clean energy to customers in New York.

1. BritNed and Nemo have reporting periods ending on 31 December with monthly management reporting information provided to the Group.

16. Investments in joint ventures and associates continued

Summarised financial information as at 31 March, together with the carrying amount of material investments, is as follows:

	BritNed Development Limited		Nemo Link Limited		Emerald Energy Venture LLC		Community Offshore Wind LLC	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
Statement of financial position								
Non-current assets	**397**	390	**514**	515	**1,598**	1,070	**925**	7
Cash and cash equivalents	**208**	77	**77**	7	**169**	134	**19**	3
All other current assets	**29**	10	**8**	7	**14**	8	**—**	835
Non-current liabilities	**(55)**	(52)	**(3)**	(34)	**(244)**	(182)	**(19)**	(1)
Non-current financial liabilities	**(31)**	(29)	**(32)**	—	**(398)**	(310)		
Current liabilities	**(34)**	(15)	**(131)**	(33)	**(131)**	(66)	**(3)**	(2)
Current financial liabilities	**—**	—	**—**	—	**(95)**	(23)	**—**	—
Net assets	**514**	381	**433**	462	**913**	631	**922**	842
Group's ownership interest in joint venture/associate	**257**	191	**217**	231	**466**	322	**251**	230
Group adjustment: elimination of profits on sales to joint venture	**—**	—	**—**	—	**(85)**	(49)	**—**	(1)
Carrying amount of the Group's investment	**257**	191	**217**	231	**381**	273	**251**	229

	BritNed Development Limited		Nemo Link Limited		Emerald Energy Venture LLC		Community Offshore Wind LLC	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
Income statement								
Revenue	**358**	131	**88**	148	**75**	25	**—**	—
Depreciation and amortisation	**(16)**	(15)	**(23)**	(23)	**(29)**	(17)	**—**	—
Other income/(costs)	**22**	(9)	**(1)**	(6)	**(46)**	(145)	**1**	(1)
Operating profit/(loss)	**364**	107	**64**	119	**—**	(137)	**1**	(1)
Net interest expense	**(2)**	(2)	**(7)**	(1)	**(6)**	(5)	**—**	—
Profit/(loss) before tax	**362**	105	**57**	118	**(6)**	(142)	**1**	(1)
Income tax expense	**(82)**	(20)	**(11)**	(22)	**—**	—	**—**	—
Profit/(loss) for the year	**280**	85	**46**	96	**(6)**	(142)	**1**	(1)
Group's share of profit/(loss)	**140**	43	**23**	48	**(3)**	(72)	**—**	—
Group adjustment: tax credit	**—**	—	**—**	—	**1**	19	**—**	—
Group's share of post-tax results for the year	**140**	43	**23**	48	**(2)**	(53)	**—**	—

17. Derivative financial instruments

Derivatives are financial instruments that derive their value from the price of an underlying item such as interest rates, foreign exchange rates, credit spreads, commodities, equities or other indices. In accordance with policies approved by the Board, derivatives are transacted generally to manage exposures to fluctuations in interest rates, foreign exchange rates and commodity prices. Our derivatives balances comprise two broad categories:

- financing derivatives – these are used to manage our exposure to interest rates and foreign exchange rates. Specifically, we use these derivatives to manage our financing portfolio, holdings in foreign operations and contractual operational cash flows; and
- commodity contract derivatives – these are used to manage our US customers' exposure to price and supply risks. Some forward contracts for the purchase of commodities meet the definition of derivatives. We also enter into derivative financial instruments linked to commodity prices, including index futures, options and swaps, which are used to manage market price volatility.

Derivatives are initially recognised at fair value and subsequently remeasured to fair value at each reporting date. Changes in fair values are recorded in the period they arise, in either the consolidated income statement or other comprehensive income. Where the gains or losses recorded in the income statement arise from changes in the fair value of derivatives to the extent that hedge accounting is not applied or is not fully effective, these are recorded as remeasurements, detailed in notes 5 and 6. Where the fair value of a derivative is positive it is carried as a derivative asset, and where negative as a derivative liability.

The fair value of derivative financial instruments is calculated by taking the present value of future cash flows, primarily incorporating market observable inputs. The various inputs include foreign exchange spot and forward rates, yield curves of the respective currencies, currency basis spreads between the respective currencies, interest rate and inflation curves, the forward rate curves of underlying commodities and, for those positions that are not fully cash collateralised, the credit quality of the counterparties.

Certain clauses embedded in non-derivative financial instruments or other contracts are presented as derivatives because they impact the risk profile of their host contracts and they are deemed to have risks or rewards not closely related to those host contracts.

Further information on how derivatives are valued and used for risk management purposes is presented in note 32. Information on commodity contracts and other commitments not meeting the definition of derivatives is presented in note 30.

The fair values of derivatives by category are as follows:

	2023			2022		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Current	**153**	**(222)**	**(69)**	282	(144)	138
Non-current	**276**	**(1,071)**	**(795)**	305	(869)	(564)
	429	**(1,293)**	**(864)**	587	(1,013)	(426)
Financing derivatives	**363**	**(1,119)**	**(756)**	298	(991)	(693)
Commodity contract derivatives	**66**	**(174)**	**(108)**	289	(22)	267
	429	**(1,293)**	**(864)**	587	(1,013)	(426)

(a) Financing derivatives

The fair values of financing derivatives by type are as follows:

	2023			2022		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Interest rate swaps	**49**	**(98)**	**(49)**	89	(97)	(8)
Cross-currency interest rate swaps	**192**	**(888)**	**(696)**	174	(642)	(468)
Foreign exchange forward contracts[1]	**100**	**(11)**	**89**	35	(65)	(30)
Inflation-linked swaps	**22**	**(122)**	**(100)**	—	(187)	(187)
	363	**(1,119)**	**(756)**	298	(991)	(693)

1. Included within the foreign exchange forward contracts balance are £4 million (2022: £21 million) of derivative liabilities in relation to the hedging of capital expenditure.

17. Derivative financial instruments continued

(a) Financing derivatives continued

The maturity profile of financing derivatives is as follows:

	2023			2022		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Current						
Less than 1 year	**100**	**(93)**	**7**	34	(136)	(102)
	100	**(93)**	**7**	34	(136)	(102)
Non-current						
In 1 to 2 years	**13**	**(100)**	**(87)**	6	(29)	(23)
In 2 to 3 years	**15**	**(96)**	**(81)**	28	(39)	(11)
In 3 to 4 years	**32**	**(11)**	**21**	—	(26)	(26)
In 4 to 5 years	**14**	**(107)**	**(93)**	12	(16)	(4)
More than 5 years	**189**	**(712)**	**(523)**	218	(745)	(527)
	263	**(1,026)**	**(763)**	264	(855)	(591)
	363	**(1,119)**	**(756)**	298	(991)	(693)

The notional contract amounts of financing derivatives by type are as follows:

	2023 £m	2022 £m
Interest rate swaps	**(1,727)**	(1,607)
Cross-currency interest rate swaps	**(15,025)**	(10,397)
Foreign exchange forward contracts	**(5,263)**	(6,371)
Inflation-linked swaps	**(2,387)**	(500)
	(24,402)	(18,875)

London Inter-bank Offered Rate (LIBOR) is being replaced as an interest rate benchmark by alternative reference rates and therefore we are transitioning LIBOR cash flows on our affected contracts in line with the relevant jurisdictions. In the prior year we transitioned all derivatives which pay or receive cash flows that reference GBP LIBOR (maturing between 2023 and 2040) to alternative reference rates. Derivatives with a notional value of £859 million that reference USD LIBOR (maturing between 2023 and 2026) were present at 31 March 2023 (2022: £806 million, maturing between 2023 and 2026).

(b) Commodity contract derivatives

The fair values of commodity contract derivatives by type are as follows:

	2023			2022		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Commodity purchase contracts accounted for as derivative contracts						
Forward purchases of gas	**2**	**(6)**	**(4)**	11	(6)	5
Derivative financial instruments linked to commodity prices						
Electricity capacity	**1**	**—**	**1**	1	—	1
Electricity swaps	**53**	**(92)**	**(39)**	208	(10)	198
Electricity options	**—**	**(3)**	**(3)**	5	—	5
Gas swaps	**9**	**(42)**	**(33)**	29	(6)	23
Gas options	**1**	**(31)**	**(30)**	35	—	35
	66	**(174)**	**(108)**	289	(22)	267

17. Derivative financial instruments continued

(b) Commodity contract derivatives continued

The maturity profile of commodity contract derivatives is as follows:

	2023			2022		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Current						
Less than one year	**53**	**(129)**	**(76)**	248	(8)	240
	53	**(129)**	**(76)**	248	(8)	240
Non-current						
In 1 to 2 years	**11**	**(29)**	**(18)**	34	(6)	28
In 2 to 3 years	**2**	**(15)**	**(13)**	5	(5)	—
In 3 to 4 years	**—**	**(1)**	**(1)**	2	(2)	—
In 4 to 5 years	**—**	**—**	**—**	—	(1)	(1)
	13	**(45)**	**(32)**	41	(14)	27
	66	**(174)**	**(108)**	289	(22)	267

The notional quantities of commodity contract derivatives by type are as follows:

	2023	2022
Forward purchases of gas[1]	**22m Dth**	28m Dth
Electricity swaps	**14,076 GWh**	13,458 GWh
Gas swaps	**50m Dth**	39m Dth
Gas options	**57m Dth**	59m Dth

1. Forward gas purchases have terms up to three years (2022: one year). The contractual obligations under these contracts are £24 million (2022: £86 million).

18. Inventories and current intangible assets

Inventories represent assets that we intend to use in order to generate revenue in the short term, either by selling the asset itself (for example fuel stocks) or by using it to fulfil a service to a customer or to maintain our network (consumables).

Inventories are stated at the lower of weighted average cost and net realisable value. Where applicable, cost comprises direct materials and direct labour costs as well as those overheads that have been directly incurred in bringing the inventories to their present location and condition.

Emission allowances, principally relating to the emissions of carbon dioxide in the UK and sulphur and nitrous oxides in the US, are recorded as intangible assets within current assets. They are initially recorded at cost and subsequently at the lower of cost and net realisable value. A liability is recorded in respect of the obligation to deliver emission allowances and emission charges are recognised in the income statement in the period in which emissions are made.

	2023 £m	2022 £m
Fuel stocks	**280**	96
Raw materials and consumables	**460**	297
Current intangible assets – emission allowances	**136**	118
	876	511

There is a provision for obsolescence of £6 million against inventories as at 31 March 2023 (2022: £7 million).

19. Trade and other receivables

Trade and other receivables include amounts which are due from our customers for services we have provided, accrued income which has not yet been billed, prepayments, contract assets where certain milestones are required to be fulfilled and other receivables that are expected to be settled within 12 months.

Trade and other receivables are initially recognised at fair value, except for trade receivables that do not have a significant financing component which are measured at transaction price, and are subsequently measured at amortised cost, less any appropriate allowances for estimated irrecoverable amounts.

	2023 £m	2022 £m
Trade receivables	**2,583**	2,661
Accrued income	**1,126**	1,110
Provision for impairment of receivables and accrued income	**(560)**	(741)
Trade receivables and accrued income, net	**3,149**	3,030
Prepayments	**442**	429
Contract assets	**49**	33
Other receivables	**243**	223
	3,883	3,715

Trade receivables are non-interest-bearing and generally have a term of up to 60 days. Due to their short maturities, the fair value of trade and other receivables approximates their carrying value. The maximum exposure of trade and other receivables to credit risk is the carrying amount reported on the balance sheet.

Provision for impairment of receivables

A provision for credit losses is recognised at an amount equal to the expected credit losses that will arise over the lifetime of the trade receivables and accrued income.

	2023 £m	2022 £m
At 1 April	**741**	672
Exchange adjustments	**51**	31
Charge for the year, net of recoveries	**220**	167
Uncollectible amounts written off	**(452)**	(124)
Reclassification to held for sale (note 10)	**—**	(5)
At 31 March	**560**	741

The trade receivables balance, accrued income balance and provisions balance split by geography are as follows:

	As at 31 March 2023			As at 31 March 2022		
	UK £m	US £m	Total £m	UK £m	US £m	Total £m
Trade receivables	**223**	**2,360**	**2,583**	352	2,309	2,661
Accrued income	**650**	**476**	**1,126**	715	395	1,110
Provision for impairment of receivables and accrued income	**(11)**	**(549)**	**(560)**	(43)	(698)	(741)
	862	**2,287**	**3,149**	1,024	2,006	3,030

There are no retail customers in the UK businesses. A provision matrix is not used in the UK, as an assessment of expected losses on individual debtors is performed and the provision is not material.

In the US, £2,325 million (2022: £2,243 million) of the trade receivables and accrued income balance is attributable to retail customers. For non-retail US customer receivables, a provision matrix is not used and expected losses are determined on individual debtors.

The provision for retail customer receivables in the US is calculated based on a series of provision matrices which are prepared by regulated entity and by customer type. The expected loss rates in each provision matrix are based on historical loss rates adjusted for current and forecast economic conditions at the balance sheet date. The inclusion of forward-looking information in the provision matrix-setting process under IFRS 9 results in loss rates that reflect expected future economic conditions and the recognition of an expected loss on all debtors even where no loss event has occurred.

In March 2020, the Group's US distribution business temporarily ceased certain customer cash collection activities in response to regulatory instructions and to changes in State, Federal and City level regulations and guidance, and actions to minimise risk to the Group's employees as a result of COVID-19. At that time, the Group also ceased customer termination activities as requested by relevant local authorities and this resulted in the recognition of additional expected credit losses. Cash collection and customer termination activities subsequently resumed in New England and New York during the year ended 31 March 2022.

In the years ended 31 March 2023 and 2022, the Group's US distribution businesses have also been supported by certain government and state COVID-19 funding programmes, including the Arrears Management Program in New York aimed to provide low-income customers with COVID-19 relief via one-time bill credits. This year, in connection with the Arrears Management Program, the Group has written off £270 million ($333 million) of COVID-19-related trade receivables. This has been funded via the receipt of £44 million ($51 million) of government funding in the year, with the remainder to be recovered through future rates over future periods.

19. Trade and other receivables continued

Provision for impairment of receivables continued

In calculating our provision for impairment of receivables at 31 March 2023, we were able to incorporate the actual cash collection levels experienced for the three years since the start of the pandemic to determine the expected loss rates per category of outstanding receivable by operating company. These were benchmarked against provision matrices run on pre-COVID-19 behaviour and data. Factored into our analysis are expected cash collections based on the resumed collection activities in New England and New York, as well as the impacts of government and state funding programmes and the outlook for the wider macroeconomic environment. The resulting rates are summarised in the provision matrix shown below.

Based on our review, we recognised a charge of £215 million (2022: £139 million) which represents our best estimate based on the information available. We based our review on certain macroeconomic factors, including unemployment levels, inflation, average commodity rate changes and our experience regarding debtor recoverability since the start of the COVID-19 pandemic. In performing our review of actual cash collection levels, we also factored in the impacts of government and state COVID-19 funding programmes in order to reflect an expected collection rate.

The average expected loss rates and gross balances for the retail customer receivables in our US operations are set out below. The decreases in expected loss rates applied to amounts less than 12 months past due are primarily attributable to the resumption of cash collection activities since the prior year, while the increase in the average loss rate applied to amounts over 12 months reflects the increased risk of non-collection in light of wider macroeconomic factors, as well as the reduced likelihood of recoverability given the significant ageing of the amounts within this category.

	2023		2022	
	%	£m	%	£m
Accrued income	3	462	5	382
0 – 30 days past due	3	838	5	731
30 – 60 days past due	13	235	20	213
60 – 90 days past due	23	139	32	123
3 – 6 months past due	32	189	41	161
6 – 12 months past due	43	178	56	177
Over 12 months past due	88	284	71	456
		2,325		2,243

US retail customer receivables are not collateralised. Trade receivables are written off when regulatory requirements are met. Write-off policies vary between jurisdictions as they are aligned with the local regulatory requirements, which differ between regulators. There were no significant amounts written off during the period that were still subject to enforcement action. Our internal definition of default is aligned with that of the individual regulators in each jurisdiction.

For further information on our wholesale and retail credit risk, refer to note 32(a).

20. Cash and cash equivalents

Cash and cash equivalents include cash balances, together with short-term investments with an original maturity of less than three months that are readily convertible to cash.

Net cash and cash equivalents reflected in the cash flow statement are net of bank overdrafts, which are reported in borrowings. The carrying amounts of cash and cash equivalents and bank overdrafts approximate their fair values.

Cash at bank earns interest at floating rates based on daily bank deposit rates. Cash and cash equivalents held in currencies other than sterling have been converted into sterling at year-end exchange rates. For further information on currency exposures, refer to note 32(c).

Cash and cash equivalents at 31 March 2023 include £37 million (2022: £14 million) that is restricted. The restricted cash balances include amounts required to be maintained for insurance purposes and cash balances that can only be used for low-carbon network fund projects.

	2023 £m	2022 £m
Cash at bank	163	204
Cash and cash equivalents	163	204

21. Borrowings

We borrow money primarily in the form of bonds and bank loans. These are for a fixed term and may have fixed or floating interest rates or are linked to inflation indices. We use derivatives to manage risks associated with interest rates, inflation rates and foreign exchange. Lease liabilities are also included within borrowings.

Our price controls and rate plans lead us to fund our networks within a certain ratio of debt to equity or regulatory asset value and, as a result, we have issued a significant amount of debt. As we continue to invest in our networks, the value of debt is expected to increase over time. To maintain a strong balance sheet and to allow us to access capital markets at commercially acceptable interest rates, we balance the amount of debt we issue with the value of our assets, and we take account of certain other metrics used by credit rating agencies.

Borrowings, which include interest-bearing and inflation-linked debt, overdrafts and collateral payable, are initially recorded at fair value. This normally reflects the proceeds received (net of direct issue costs for liabilities measured at amortised cost). Subsequently, borrowings are stated either: i) at amortised cost; or ii) at fair value though profit and loss. Where a borrowing is held at amortised cost, any difference between the proceeds after direct issue costs and the redemption value is recognised over the term of the borrowing in the income statement using the effective interest method. For the liability held at fair value through profit and loss, interest is calculated using the effective interest method.

Where a borrowing or liability is held at fair value, changes in the fair value of the borrowing due to changes in the issuer's credit risk are recorded in the own credit reserve within equity (see note 28). All other changes in the fair value of the liability are recognised in the income statement within remeasurements (see notes 5 and 6).

	2023 £m	2022 £m
Current		
Bank loans[1]	**381**	8,976
Bonds	**1,638**	1,735
Commercial paper	**840**	1,303
Lease liabilities	**96**	107
	2,955	12,121
Non-current		
Bank loans	**2,557**	2,211
Bonds	**36,855**	30,682
Lease liabilities	**618**	451
	40,030	33,344
Total borrowings	**42,985**	45,465

1. Current bank loans in the year ended 31 March 2022 included £8,179 million of borrowings under a bridge facility related to the acquisition of NGED. The bridge facility included a requirement that the proceeds of the sales of NECO and the UK Gas Transmission business were applied to repay the facility. The bridge facility was subsequently settled in full during the year ended 31 March 2023.

21. Borrowings continued

Total borrowings are repayable as follows:

	2023 £m	2022 £m
Less than 1 year	**2,955**	12,121
In 1 to 2 years	**2,799**	1,410
In 2 to 3 years	**2,689**	2,544
In 3 to 4 years	**3,129**	2,580
In 4 to 5 years	**2,505**	2,493
More than 5 years:		
By instalments	**922**	869
Other than by instalments	**27,986**	23,448
	42,985	45,465

The fair value of borrowings, excluding lease liabilities, at 31 March 2023 was £38,219 million (2022: £45,066 million). Where market values were available, the fair value of borrowings (Level 1) was £31,710 million (2022: £24,454 million). Where market values were not available, the fair value of borrowings (Level 2) was £6,509 million (2022: £20,612 million) and calculated by discounting cash flows at prevailing interest rates. The notional amount outstanding of the debt portfolio at 31 March 2023 was £42,353 million (2022: £44,055 million). There have been no new issuances since the year end.

Collateral is placed with or received from any derivative counterparty where we have entered into a credit support annex to the ISDA Master Agreement once the current mark-to-market valuation of the trades between the parties exceeds an agreed threshold. Included in current bank loans is £111 million (2022: £60 million) in respect of cash received under collateral agreements. For further details of our borrowing facilities, refer to note 33. For further details of our bonds in issue, please refer to the debt investor section of our website. Unless included herein the information on our website is unaudited.

Certain borrowings, primarily some of our USD denominated bank loans and company car lease contracts, have payments that are linked to LIBOR. LIBOR is being replaced as an interest rate benchmark by alternative reference rates and therefore we are transitioning LIBOR cash flows on our affected contracts in line with the relevant jurisdictions. The migration project is under way, with all affected contracts where we previously paid or received GBP LIBOR amended in the prior year. £314 million of bank loans affected by GBP LIBOR were transitioned to alternative reference rates in the year ended 31 March 2022. £227 million (2022: £181 million) of lease liabilities affected by USD LIBOR have been transitioned to alternative rates and £120 million (2022: £110 million) of bank loans affected by USD LIBOR have yet to be amended.

21. Borrowings continued

Lease liabilities

Lease liabilities are initially measured at the present value of the lease payments expected over the lease term. The discount rate applied is the rate implicit in the lease or, if that is not available, the incremental rate of borrowing for a similar term and similar security. The lease term takes account of exercising any extension options that are at our option if we are reasonably certain to exercise the option as well as any lease termination options, unless we are reasonably certain not to exercise the option. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the income statement over the lease period using the effective interest rate method.

	2023 £m	2022 £m
Gross lease liabilities are repayable as follows:		
Less than 1 year	118	132
1 to 5 years	318	282
More than 5 years	480	259
	916	673
Less: finance charges allocated to future periods	(202)	(115)
	714	558
The present value of lease liabilities are as follows:		
Less than 1 year	96	107
1 to 5 years	269	247
More than 5 years	349	204
	714	558

22. Trade and other payables

Trade and other payables include amounts owed to suppliers, tax authorities and other parties which are due to be settled within 12 months. The total also includes deferred amounts, some of which represent monies received from customers but for which we have not yet delivered the associated service. These amounts are recognised as revenue when the service is provided.

Trade and other payables are initially recognised at fair value and subsequently measured at amortised cost, with the exception of contingent consideration, which is subsequently measured at fair value.

	2023 £m	2022 £m
Trade payables	3,249	3,113
Deferred payables	404	487
Customer contributions[1]	171	137
Social security and other taxes	240	278
Contingent consideration	19	34
Other payables[2]	985	866
	5,068	4,915

1. Relates to amounts received from government-related entities for connecting to our networks, where we have obligations remaining under the contract.
2. Included within other payables are payments due in respect of interconnector excess revenues in accordance with the cap and floor regime constructed by Ofgem (see note 3).

Due to their short maturities, the fair value of trade and other payables approximates their carrying value.

23. Contract liabilities

Contract liabilities primarily relate to the advance consideration received from customers for construction contracts, mainly in relation to connections, for which revenue is recognised over the life of the asset.

	2023 £m	2022 £m
Current	**252**	130
Non-current	**1,754**	1,342
	2,006	1,472

Significant changes in the contract liabilities balances during the period are as follows:

	2023 £m	2022 £m
As at 1 April	**1,472**	1,160
Exchange adjustments	**54**	29
Revenue recognised that was included in the contract liability balance at the beginning of the period	**(292)**	(53)
Increases due to cash received, excluding amounts recognised as revenue during the period	**772**	510
Reclassification to held for sale (note 10)	**—**	(174)
At 31 March	**2,006**	1,472

24. Other non-current liabilities

Other non-current liabilities include deferred income and customer contributions which will not be recognised as income until after 31 March 2024. It also includes contingent consideration and other payables that are not due until after that date.

Other non-current liabilities are initially recognised at fair value and subsequently measured at amortised cost, with the exception of contingent consideration, which is subsequently measured at fair value.

	2023 £m	2022 £m
Deferred income	**84**	41
Customer contributions[1]	**421**	421
Contingent consideration	**—**	7
Other payables[2]	**416**	336
	921	805

1. Relates to amounts received from government-related entities for connecting to our networks, where we have obligations remaining under the contract.
2. Included within other payables are payments due in respect of the IFA1 interconnector in accordance with the Use of Revenue regime constructed by Ofgem.

There is no material difference between the fair value and the carrying value of other payables.

25. Pensions and other post-retirement benefits

All of our employees are eligible to participate in a pension plan. We have defined contribution (DC) and defined benefit (DB) pension plans in the UK and the US. In the US we also provide healthcare and life insurance benefits to eligible employees, post retirement. The fair value of associated plan assets and present value of DB obligations are updated annually in accordance with IAS 19 'Employee Benefits'. We separately present our UK and US pension plans to show the geographical split. Below we provide a more detailed analysis of the amounts recorded in the primary financial statements and the actuarial assumptions used to value the DB obligations.

UK pension plans

Defined contribution plan

Employees of National Grid's legacy UK businesses are eligible to join the National Grid UK Retirement Plan (NGUKRP), a section of a Master Trust arrangement managed by Legal & General. Separately, DC pension benefits are provided to NGED employees through the Western Power Pension Scheme (WPPS), which comprises four sections, each containing an element of DC pension provision. Of the four sections, it is only the '2010 Section' which is open to new NGED employees. National Grid pays contributions into the NGUKRP and WPPS 2010 Section to provide DC benefits on behalf of its employees, generally providing a double match of member contributions (up to a maximum Company contribution of 12% of salary in NGUKRP and 10% of salary in WPPS 2010 Section, increasing to 12% for future years on 1 April 2023).

Investment risks are borne by the member and there is no legal or constructive obligation on National Grid to pay additional contributions in the instance that investment performance is poor. Payments to these DC plans are charged as an expense as they fall due.

Defined benefit plans

National Grid operates various DB pension arrangements in the UK. These include Section A of the National Grid UK Pension Scheme (NGUKPS), three sections of the industry-wide Electricity Supply Pension Scheme (ESPS) and a legacy scheme (WPUPS), DB sections within WPPS and some unfunded pension obligations. Each of these plans holds assets in separate Trustee administered funds. The arrangements are managed by Trustee companies with boards consisting of company and member appointed Directors. These plans are all closed to new members, except for the ESPS schemes in very rare circumstances.

The Group became responsible for four of these pension schemes following the acquisition of NGED in the prior year. At the date of acquisition these schemes had combined assets of £7,662 million and the Group recognised a net pension asset on the balance sheet of £566 million (see note 37). This net pension asset was assessed consistently with the valuation of National Grid's existing defined benefit pension schemes but reflecting market conditions at the date of acquisition. In addition, the Group also became responsible for some smaller unfunded obligations relating to previous executives at NGED East Midlands and NGED West Midlands.

Following the sale of the UK Gas Transmission business in January 2023, the Group is no longer responsible for Section B of the NGUKPS. During the year, the Group carried out an exercise to align each employee's pension scheme with their future employer, enabling them to continue to earn DB benefits after the closing of the sale. These employees were then offered the chance to transfer their accrued pension benefits into their new pension scheme, with the transfers completing in January 2023.

The arrangements are subject to independent actuarial funding valuations every three years and, following consultation and agreement with the Company, the qualified actuary certifies the employers' contributions which together with the specified contributions payable by the employees and proceeds from the plans' assets, are expected to be sufficient to fund the benefits payable. The Company is in the process of agreeing actuarial valuations as at 31 March 2022 for each of the DB plans. This will involve implementing revised deficit recovery plans for any schemes where there is an assessed funding shortfall. The existing recovery plans agreed as part of the 31 March 2019 actuarial valuations are due to finish in November 2024, or earlier, with payments of approximately £60 million across all plans still due to be paid. Separately, National Grid continues to fund the cost of future benefit accrual (over and above member contributions) for each of the DB schemes. In the year to March 2023, the aggregate level of ongoing contributions (excluding recovery plan payments) was £74 million (2022: £83 million; 2021: £50 million). National Grid also pays contributions in respect of the costs of plan administration and the Pension Protection Fund (PPF) levies for most of its DB plans.

In addition, for some plans the Company has also agreed to establish security arrangements. This includes £186 million of security for Section A of NGUKPS, all of which is currently provided in the form of surety bonds but may also be provided as letters of credit or cash. This amount will be paid to Section A in the event that the relevant supporting employer is subject to an insolvency event or fails to make required contributions. Contingent security would be provided to National Grid Electricity Group (NGEG) of ESPS, in the form of cash payments of up to a maximum of £500 million, payable if certain trigger events occur in respect of National Grid Electricity Transmission plc.

A guarantee has also been provided to Section A of NGUKPS, with the payment contingent on insolvency or on failure to pay pension obligations to Section A and can be claimed against National Grid plc, National Grid Holdings One plc or Lattice Group Limited.

US pension plans

The US pension plans are governed by a fiduciary committee called the Retirement Plan Committee (RPC). The RPC is structured in accordance with US laws governing retirement plans under the Employee Retirement Income Security Act (ERISA) and comprises appointed employees of the Company.

Defined contribution plans

National Grid has a DC pension plan which allows employee as well as Company contributions. Non-union employees hired after 1 January 2011, as well as most new hire union employees, receive a core contribution into the DC plan ranging from 3% to 9% of salary, irrespective of the employee's contribution into the plan. Most employees also receive a matching contribution that varies between 25% and 50% of employee contributions up to a maximum of 8% to 10%. The assets of the plans are held in trusts and administered by the RPC.

25. Pensions and other post-retirement benefits continued

US pension plans continued

Defined benefit plans

National Grid sponsors four non-contributory qualified DB pension plans, which provide vested union employees, and vested non-union employees hired before 1 January 2011, with retirement benefits within prescribed limits as defined by the US Internal Revenue Service. National Grid also provides non-qualified DB pension arrangements for a closed group of current and former employees with designated company investments set aside to fund these obligations. Benefits under the DB plans generally reflect age, years of service and compensation, and are paid in the form of an annuity or lump sum. An independent actuary performs valuations annually. The Company funds the DB plans by contributing no less than the minimum amount required, but no more than the maximum tax-deductible amount allowed under US Internal Revenue Service regulations. The range of contributions determined under these regulations can vary significantly depending upon the funded status of the plans. At present, there is some flexibility in the amount that is contributed on an annual basis. In general, the Company's policy for funding the US pension plans is to contribute the amounts collected in rates and capitalised in the rate base during the year, to the extent that the funding is no less than the minimum amount required. For the current financial year, these contributions amounted to approximately £76 million (2022: £116 million).

In May 2022, NECO was sold to PPL Rhode Island Holdings, LLC (see note 10) and a portion of one of the DB pension plans was transferred to PPL Rhode Island Holdings, LLC's successor plan. Both active and inactive participants from NECO were transferred to PPL Rhode Island Holdings, LLC's successor plan with the sale, as well as some active employees from other subsidiaries. The sale required curtailment and settlement accounting, resulting in a remeasurement of the related plan's pension assets and benefit liabilities.

In addition, three of the DB pension plans underwent an annuity buyout transaction in which a portion of existing retiree pension payments were transferred to a reputable insurance company in exchange for a single bulk premium payment. As a result, all associated financial, governance and administrative responsibilities for those payments were transferred to the selected insurer. The annuity buyout required settlement accounting when the single bulk premium payment was paid to the insurer in June 2022.

US other post-retirement benefits

National Grid provides healthcare and life insurance benefits to eligible employees, post retirement. Eligibility is based on certain age and length of service requirements and, in most cases, retirees contribute to the cost of their healthcare coverage. In the US, there is no governmental requirement to pre-fund post-retirement healthcare and life insurance plans. However, in general, the Company's policy for funding the US retiree healthcare and life insurance plans is to contribute amounts collected in rates and capitalised in the rate base during the year. For the current financial year, these contributions amounted to £11 million (2022: £17 million).

The sale of NECO to PPL Rhode Island Holdings, LLC in May 2022 resulted in the transfer of a proportional share of the associated union and non-union OPEB assets and benefit liabilities to PPL Rhode Island Holdings, LLC's successor plans.

Actuarial assumptions

On retirement, members of DB plans receive benefits whose value is dependent on factors such as salary and length of pensionable service. National Grid's obligation in respect of DB pension plans is calculated separately for each DB plan by projecting the estimated amount of future benefit payments that employees have earned for their pensionable service in the current and prior periods. These future benefit payments are discounted to determine the present value of the liabilities. Current service cost and any unrecognised past service cost are recognised immediately.

Advice is taken from independent actuaries relating to the appropriateness of the key assumptions applied, including life expectancy, expected salary and pension increases, and inflation. Comparatively small changes in the assumptions used may have a significant effect on the amounts recognised in the consolidated income statement, the consolidated statement of other comprehensive income and the net liability recognised in the consolidated statement of financial position (see note 35). Remeasurements of pension assets and post-retirement benefit obligations are recognised in full in the period in which they occur in the consolidated statement of other comprehensive income.

The Company has applied the following financial assumptions in assessing DB liabilities:

	UK pensions			US pensions			US other post-retirement benefits		
	2023 %	2022 %	2021 %	**2023 %**	2022 %	2021 %	**2023 %**	2022 %	2021 %
Discount rate – past service	**4.80**	2.78	2.00	**4.85**	3.65	3.25	**4.85**	3.65	3.25
Discount rate – future service	**4.80**	2.85	2.15	**4.85**	3.65	3.25	**4.85**	3.65	3.25
Rate of increase in RPI – past service	**3.17**	3.60	3.15	**n/a**	n/a	n/a	**n/a**	n/a	n/a
Rate of increase in RPI – future service	**3.07**	3.33	3.00	**n/a**	n/a	n/a	**n/a**	n/a	n/a
Salary increases	**3.11**	3.47	3.40	**4.50**	4.60	4.30	**4.50**	4.60	4.30
Initial healthcare cost trend rate	**n/a**	n/a	n/a	**n/a**	n/a	n/a	**6.80**	6.80	7.10
Ultimate healthcare cost trend rate	**n/a**	n/a	n/a	**n/a**	n/a	n/a	**4.50**	4.50	4.50

For UK pensions, single equivalent financial assumptions are shown above for presentational purposes, although full yield curves have been used in our calculations. The discount rate is determined by reference to high-quality UK corporate bonds at the reporting date. The rate of increase in salaries has been set using a promotional scale where appropriate. The rates of increases stated are not indicative of historical increases awarded or a guarantee of future increase, but merely an appropriate assumption used in assessing DB liabilities. Our DB plans in the UK provide for pension increases that are generally linked to Retail Price Index (RPI), subject to relevant caps and floors.

Discount rates for US pension liabilities have been determined by reference to appropriate yields on high-quality US corporate bonds at the reporting date based on the duration of plan liabilities. The healthcare cost trend rate is expected to reach the ultimate trend rate by 2031 (2022: 2031).

25. Pensions and other post-retirement benefits continued

Actuarial assumptions continued

The table below sets out the projected life expectancies adopted for the UK and US pension arrangements:

	UK pensions			US pensions		
	2023 years	2022 years	2021 years	2023 years	2022 years	2021 years
Assumed life expectations for a retiree age 65						
Males	21.9	22.0	21.8	21.6	21.4	21.6
Females	23.7	23.8	23.7	23.8	23.6	24.0
In 20 years:						
Males	23.0	23.2	23.1	23.2	23.1	23.2
Females	25.1	25.2	25.2	25.4	25.3	25.5

The weighted average duration of the DB obligation for each category of plan is 12 years for UK pension plans, 12 years for US pension plans and 13 years for US other post-retirement benefit plans. The table below summarises the split of DB obligations by status for each category of plan:

	UK pensions		US pensions		US other post-retirement benefits	
	2023 %	2022 %	2023 %	2022 %	2023 %	2022 %
Active members	14	16	37	36	33	34
Deferred members	9	10	9	9	—	—
Pensioner members	77	74	54	55	67	66

Amounts recognised in the consolidated statement of financial position

	2023 £m	2022 £m
Present value of funded obligations	(18,934)	(23,541)
Fair value of plan assets	21,246	27,013
	2,312	3,472
Present value of unfunded obligations	(292)	(326)
Other post-employment liabilities	(69)	(71)
Net defined benefit asset	1,951	3,075
Represented by:		
Liabilities	(694)	(810)
Assets	2,645	3,885
	1,951	3,075

The geographical split of pensions and other post-retirement benefits is as shown below:

	UK pensions		US pensions		US other post-retirement benefits		Total	
	2023 £m	2022 £m	2023 £m	2022 £m	2023 £m	2022 £m	2023 £m	2022 £m
Present value of funded obligations	(10,906)	(14,197)	(5,502)	(6,531)	(2,526)	(2,813)	(18,934)	(23,541)
Fair value of plan assets	12,578	16,865	6,060	7,263	2,608	2,885	21,246	27,013
	1,672	2,668	558	732	82	72	2,312	3,472
Present value of unfunded obligations	(58)	(78)	(234)	(248)	—	—	(292)	(326)
Other post-employment liabilities	—	—	—	—	(69)	(71)	(69)	(71)
Net defined benefit asset	1,614	2,590	324	484	13	1	1,951	3,075
Represented by:								
Liabilities	(58)	(78)	(234)	(248)	(402)	(484)	(694)	(810)
Assets	1,672	2,668	558	732	415	485	2,645	3,885
	1,614	2,590	324	484	13	1	1,951	3,075

The recognition of the pension assets in the UK and in the US reflects legal and actuarial advice that we have taken regarding recognition of surpluses under IFRIC 14. In the UK, the Group has an unconditional right to a refund in the event of a winding up. In the US, surplus assets of a plan may be used to pay for future benefits expected to be earned under that plan.

25. Pensions and other post-retirement benefits continued

Amounts recognised in the income statement and statement of other comprehensive income

The expense or income arising from all Group retirement benefit arrangements recognised in the Group income statements is shown below:

	2023 £m	2022 £m	2021 £m
Included within operating costs			
Administration costs	**19**	20	18
Included within payroll costs			
Defined benefit plan costs:			
Current service cost	**194**	223	175
Past service cost – augmentations	**–**	1	–
Past service cost/(credit) – redundancies	**5**	1	(1)
Special termination benefit cost – redundancies	**3**	9	5
Gains on settlement	**(45)**	–	–
	157	234	179
Included within finance income and costs			
Net interest (income)/cost	**(85)**	(2)	38
Total included in income statement[1]	**91**	252	235
Remeasurement (losses)/gains of pension assets and post-retirement benefit obligations[2]	**(1,364)**	2,481	1,408
Exchange adjustments	**41**	7	186
Total included in the statement of other comprehensive income[3]	**(1,323)**	2,488	1,594

1. Amounts shown in the table above include operating costs of £nil (2022: £4 million; 2021: £3 million); payroll costs of £nil (2022: £10 million; 2021: £10 million); and net interest income of £nil (2022: £2 million; 2021: £13 million) presented within profit from discontinued operations. These amounts all relate to UK pensions.
2. For the year ended 31 March 2021, this included actuarial losses from the purchase of buy-in policies of £0.1 billion.
3. Amounts shown in the table above include remeasurements of pension assets and post-retirement benefit obligations of £nil (2022: £309 million gain; 2021: £250 million loss) presented within discontinued operations. These amounts all relate to UK pensions.

The geographical split of pensions and other post-retirement benefits is shown below:

	UK pensions			US pensions			US other post-retirement benefits		
	2023 £m	2022 £m	2021 £m	2023 £m	2022 £m	2021 £m	2023 £m	2022 £m	2021 £m
Included within operating costs									
Administration costs	**9**	11	9	**8**	7	7	**2**	2	2
Included within payroll costs									
Defined benefit plan costs:									
Current service cost	**69**	83	28	**88**	101	104	**37**	39	43
Past service cost – augmentations	**–**	1	–	**–**	–	–	**–**	–	–
Past service cost/(credit) – redundancies	**5**	1	(1)	**–**	–	–	**–**	–	–
Special termination benefit cost – redundancies	**3**	9	5	**–**	–	–	**–**	–	–
Gains on settlement	**–**	–	–	**(45)**	–	–	**–**	–	–
	77	94	32	**43**	101	104	**37**	39	43
Included within finance income and costs									
Net interest (income)/cost	**(64)**	(7)	(38)	**(21)**	–	35	**–**	5	41
Total included in income statement	**22**	98	3	**30**	108	146	**39**	46	86
Remeasurement (losses)/gains of pension assets and post-retirement benefit obligations[1]	**(1,183)**	1,577	(622)	**(242)**	532	1,017	**61**	372	1,013
Exchange adjustments	**–**	–	–	**36**	11	83	**5**	(4)	103
Total included in the statement of other comprehensive income	**(1,183)**	1,577	(622)	**(206)**	543	1,100	**66**	368	1,116

1. For the year ended 31 March 2021, UK pensions is stated after actuarial losses from the purchase of buy-in policies of £0.1 billion.

25. Pensions and other post-retirement benefits continued

Reconciliation of the net defined benefit asset

	UK pensions		US pensions		US other post-retirement benefits		Total	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
Opening net defined benefit asset/(liability)	**2,590**	1,035	**484**	(22)	**1**	(298)	**3,075**	715
Cost recognised in the income statement (including discontinued operations)	**(22)**	(98)	**(30)**	(108)	**(39)**	(46)	**(91)**	(252)
Remeasurement and foreign exchange effects recognised in the statement of other comprehensive income	**(1,183)**	1,577	**(206)**	543	**66**	368	**(1,323)**	2,488
Employer contributions	**197**	167	**76**	116	**11**	17	**284**	300
Other movements	**2**	7	**—**	—	**(26)**	(29)	**(24)**	(22)
Acquisition of NGED	**—**	566	**—**	—	**—**	—	**—**	566
Reclassification to held for sale (note 10)	**30**	(664)	**—**	(45)	**—**	(11)	**30**	(720)
Closing net defined benefit asset	**1,614**	2,590	**324**	484	**13**	1	**1,951**	3,075

Changes in the present value of defined benefit obligations (including unfunded obligations)

The table below shows the movement in defined benefit obligations across our DB plans over the year.

	UK pensions		US pensions		US other post-retirement benefits		Total	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
Opening defined benefit obligations	**(14,275)**	(13,645)	**(6,779)**	(6,931)	**(2,813)**	(3,031)	**(23,867)**	(23,607)
Current service cost	**(69)**	(83)	**(88)**	(101)	**(37)**	(39)	**(194)**	(223)
Interest cost	**(334)**	(88)	**(252)**	(240)	**(111)**	(100)	**(697)**	(428)
Actuarial (losses)/gains – experience	**(235)**	(627)	**(17)**	(24)	**48**	107	**(204)**	(544)
Actuarial gains – demographic assumptions	**135**	133	**5**	100	**10**	71	**150**	304
Actuarial gains – financial assumptions	**3,167**	1,387	**818**	329	**443**	192	**4,428**	1,908
Past service cost – redundancies	**(5)**	(1)	**—**	—	**—**	—	**(5)**	(1)
Special termination benefit cost – redundancies	**(3)**	(9)	**—**	—	**—**	—	**(3)**	(9)
Past service cost – augmentations	**—**	(1)	**—**	—	**—**	—	**—**	(1)
Liabilities extinguished on settlements	**—**	—	**616**	—	**—**	—	**616**	—
Medicare subsidy received	**—**	—	**—**	—	**(28)**	(24)	**(28)**	(24)
Employee contributions	**(10)**	(8)	**—**	—	**—**	—	**(10)**	(8)
Benefits paid	**711**	919	**426**	403	**153**	159	**1,290**	1,481
Exchange adjustments	**—**	—	**(465)**	(327)	**(191)**	(140)	**(656)**	(467)
Acquisition of NGED	**—**	(7,096)	**—**	—	**—**	—	**—**	(7,096)
Reclassification to held for sale	**(46)**	4,844	**—**	12	**—**	(8)	**(46)**	4,848
Closing defined benefit obligations	**(10,964)**	(14,275)	**(5,736)**	(6,779)	**(2,526)**	(2,813)	**(19,226)**	(23,867)

Changes in the value of plan assets

The table below shows the movement in pension assets across our DB plans over the year.

	UK pensions		US pensions		US other post-retirement benefits		Total	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
Opening fair value of plan assets	**16,865**	14,680	**7,263**	6,909	**2,885**	2,799	**27,013**	24,388
Interest income	**398**	95	**273**	240	**111**	95	**782**	430
Return on plan assets (less than)/in excess of interest	**(4,250)**	684	**(1,048)**	127	**(440)**	2	**(5,738)**	813
Administration costs	**(9)**	(11)	**(8)**	(7)	**(2)**	(2)	**(19)**	(20)
Assets distributed on settlements	**—**	—	**(571)**	—	**—**	—	**(571)**	—
Employer contributions	**197**	167	**76**	116	**11**	17	**284**	300
Employee contributions	**10**	8	**—**	—	**—**	—	**10**	8
Benefits paid	**(709)**	(912)	**(426)**	(403)	**(153)**	(159)	**(1,288)**	(1,474)
Exchange adjustments	**—**	—	**501**	338	**196**	136	**697**	474
Acquisition of NGED	**—**	7,662	**—**	—	**—**	—	**—**	7,662
Reclassification to held for sale	**76**	(5,508)	**—**	(57)	**—**	(3)	**76**	(5,568)
Closing fair value of plan assets	**12,578**	16,865	**6,060**	7,263	**2,608**	2,885	**21,246**	27,013
Actual return on plan assets	**(3,852)**	779	**(775)**	367	**(329)**	97	**(4,956)**	1,243
Expected contributions to plans in the following year	**99**	146	**36**	74	**14**	14	**149**	234

25. Pensions and other post-retirement benefits continued

Asset allocations

The allocation of assets by asset class is set out below. Within these asset allocations there is significant diversification across regions, asset managers, currencies and bond categories.

UK pensions

	2023			2022			2021		
	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities	475	179	654	1,458	474	1,932	555	801	1,356
Corporate bonds	1,956	—	1,956	2,741	—	2,741	3,730	37	3,767
Government securities	762	—	762	786	—	786	1,836	—	1,836
Property	23	860[1]	883	122	1,002[1]	1,124	104	565[1]	669
Diversified alternatives	708	680	1,388	1,334	432	1,766	—	712	712
Liability-matching assets	1,958[2]	4,873[3]	6,831[4]	2,023[2]	6,090[3]	8,113[4]	1,731[2]	4,133[3]	5,864[4]
Longevity swap	—	(88)	(88)	—	(80)	(80)	—	(64)	(64)
Cash and cash equivalents	145	—	145	477	—	477	34	250	284
Other (including net current assets and liabilities)	59	(12)	47	16	(10)	6	—	256	256
	6,086	6,492	12,578[5]	8,957	7,908	16,865[5]	7,990	6,690	14,680[5]

1. Includes £304 million (2022: £283 million; 2021: £nil) of investments in forestry funds.
2. Consists of pooled funds which invest mainly in fixed interest securities.
3. Includes buy-in policies held by NGUKPS with a total value of £2.1 billion (2022: £2.7 billion; 2021: £4.1 billion).
4. Included within liability-matching assets above is £3.4 billion (2022: £6.6 billion; 2021: £2.5 billion) of repurchase agreements. These are used to increase the market exposure of the liability-matching portfolios.
5. The fair value of plan assets for NGUKPS Section A includes employer-related investment exposure of £23 million (2022: £32 million; 2021: £nil).

US pensions

	2023			2022			2021		
	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities	154	1,346	1,500	272	1,904	2,176	560	2,359	2,919
Corporate bonds	2,147	528	2,675	2,311	697	3,008	1,547	507	2,054
Government securities	410	514	924	335	715	1,050	354	527	881
Property	—	299	299	—	295	295	—	264	264
Diversified alternatives	85	285	370	142	364	506	167	458	625
Infrastructure	—	265	265	—	182	182	—	130	130
Cash and cash equivalents	16	—	16	31	—	31	24	—	24
Other (including net current assets and liabilities)	7	4	11	12	3	15	12	—	12
	2,819	3,241	6,060	3,103	4,160	7,263	2,664	4,245	6,909

US other post-retirement benefits

	2023			2022			2021		
	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities	74	510	584	185	1,013	1,198	419	1,303	1,722
Corporate bonds	1,332	2	1,334	723	2	725	13	—	13
Government securities	431	2	433	511	2	513	533	3	536
Diversified alternatives	100	9	109	144	120	264	185	172	357
Other[1]	1	147	148	—	185	185	—	171	171
	1,938	670	2,608	1,563	1,322	2,885	1,150	1,649	2,799

1. Other primarily comprises insurance contracts.

Main defined benefit risks

National Grid underwrites the financial and demographic risks associated with our DB plans. Although the governing bodies have sole responsibility for setting investment strategies and managing risks, National Grid closely works with and supports the governing bodies of each plan, to assist them in mitigating the risks associated with their plans and to ensure that the plans are funded to meet their obligations.

25. Pensions and other post-retirement benefits continued

Main defined benefit risks continued

The most significant risks associated with the DB plans are:

Main risks	Description and mitigation
Investment risk	The plans invest in a variety of asset classes, with actual returns likely to differ from the underlying discount rate adopted, impacting on the funding position of the plan through the net balance sheet asset or liability. Each plan seeks to balance the level of investment return required with the risk that it can afford to take, to design the most appropriate investment portfolio.
Changes in bond yields	Liabilities will fluctuate as yields change. Volatility of the net balance sheet asset or liability is controlled through liability-matching strategies. The investment strategies allow for the use of synthetic as well as physical assets to be used to hedge interest rate risk.
Inflation risk	Changes in inflation will affect current and future pensions but are partially mitigated through investing in inflation-matching assets and hedging instruments as well as bulk annuity buy-in policies. The investment strategies allow for the use of synthetic as well as physical assets to be used to hedge inflation risk.
Member longevity	Improvements in life expectancy will lead to pension payments being paid for longer than expected and benefits ultimately being more expensive. This risk has been partly mitigated by scheme investment transactions including a longevity insurance contract (longevity swap) for NGEG of ESPS and two buy-in policies for Section A of NGUKPS.
Counterparty risk	This is managed by having a diverse range of counterparties and through having a strong collateralisation process (including for the longevity swap held by NGEG of ESPS). Measurement and management of counterparty risk is delegated to the relevant investment managers. For our bulk annuity policies, various termination provisions were introduced in the contracts, managing our exposure to counterparty risk. The insurers' operational performance and financial strength are monitored on a regular basis.
Default risk	Debt investments are predominantly made in regulated markets in assets considered to be of investment grade. Where investments are made either in non-investment grade assets or outside of regulated markets, investment levels are kept to prudent levels and subject to agreed ranges, to control the risk.
Liquidity risk	The pension plans hold sufficient cash to meet benefit requirements, with other investments being held in liquid or realisable assets to meet unexpected cash flow requirements. These could include collateral calls relating to the plans' liability-matching assets which could result from extreme market movements. Should the plans not have sufficient liquidity to meet cash flow requirements, they could be forced to take sub-optimal investment decisions such as selling assets at a reduced price. The plans do not borrow money, or act as guarantor, to provide liquidity to other parties (unless it is temporary).
Currency risk	Fluctuations in the value of foreign denominated assets due to exposure to currency exchange rates are managed through currency hedging overlay and currency hedging carried out by some of the investment managers.

DB plan investment strategies

The Trustees and RPC, after taking advice from professional investment advisors and in consultation with National Grid, set their key principles, including expected returns, risk and liquidity requirements. They formulate an investment strategy to manage risk through diversification, taking into account expected contributions, maturity of the pension liabilities and, in the UK, the strength of the covenant. These strategies allocate investments between return-seeking assets such as equities and property, and liability-matching assets such as buy-in policies, government securities and corporate bonds which are intended to protect the funding position.

The approximate investment allocations for our plans at 31 March 2023 are as follows:

	UK pensions %	US pensions %	US other post-retirement benefits %
Return-seeking assets	24	36	32
Liability-matching assets	76	64	68

The governing bodies generally delegate responsibility for the selection of specific bonds, securities and other investments to appointed investment managers. Investment managers are selected based on the required skills, expertise in those markets, process and financial security to manage the investments. Their performance is regularly reviewed against measurable objectives, consistent with each pension plan's long-term objectives and accepted risk levels.

The extreme volatility of the UK gilt market during 2022 led to significant liquidity pressures on DB pension schemes, with large collateral calls from Liability-Driven Investment (LDI) fund managers requiring some schemes to either sell illiquid assets at short notice or reduce their level of hedging. Whilst these liquidity calls were met by the schemes, the Company provided Section A of NGUKPS with a short-term loan of £125 million to ensure that any further significant rises in gilt yields would not require a reduction to hedging levels. This loan was repaid in January 2023. Each of our schemes continues to review its strategy for hedging interest rates and inflation, to ensure it is not exposed to undue risk given further future market volatility.

In the UK, each of our pension plans has Responsible Investment (RI) Policies, which take into account Environmental, Social and Governance (ESG) factors and generally incorporate the six UN-backed Principles for Responsible Investment (UNPRI). Each of the Trustee boards believes that ESG factors can be material to financial outcomes and should therefore be considered alongside other factors. They recognise that their primary responsibility remains a fiduciary one, i.e. their first duty is to ensure the best possible return on investments with the appropriate level of risk. However, they also recognise the increasing materiality of ESG factors and that they have a fiduciary and regulatory duty to consider RI, including ESG factors and their potential impact on the quality and sustainability of long-term investment returns. The principal defined contribution arrangement in the UK embeds ESG factors in the investment options offered to members. As well as offering a range of self-select ethical funds, it directly incorporates its Climate Impact Pledge into the default investment option, which acts to align the fund to a carbon net zero future.

Whilst in the US there is no regulatory requirement to have ESG-specific principles embedded in investment policies, our investment managers often utilise ESG principles to inform their decision-making process.

26. Provisions

Provisions are recognised where a legal or constructive obligation exists at the reporting date, as a result of a past event, where the outflow of economic benefit is probable and where the amount of the obligation can be reliably estimated. Provisions are recognised for the costs of environmental remediation; decommissioning costs for certain assets that we are required to remove at the end of their useful economic lives; restructuring costs; and for certain other situations where the above thresholds are met.

Long-term provisions are measured based on management's best estimates of the likely cash flows, discounted at an appropriate discount rate. The unwinding of the discount is included within the income statement within finance costs. Short-term provisions are measured at the expected cash outflow and are not discounted.

	Environmental £m	Decommissioning £m	Other £m	Total provisions £m
At 1 April 2021	1,700	244	283	2,227
Exchange adjustments	82	4	11	97
Additions	158	37	228	423
Acquisition of NGED (note 37)	—	37	29	66
Unused amounts reversed	(25)	(4)	(32)	(61)
Unwinding of discount	64	6	3	73
Utilised	(99)	(26)	(69)	(194)
Reclassification to held for sale (note 10)	(3)	(40)	(49)	(92)
At 31 March 2022	1,877	258	404	2,539
Exchange adjustments	114	5	12	131
Additions	142	91	222	455
Unused amounts reversed	(38)	(10)	(14)	(62)
Adjustment for change in discount rate[1]	(176)	(48)	—	(224)
Unwinding of discount	72	10	6	88
Utilised	(100)	(9)	(176)	(285)
At 31 March 2023	**1,891**	**297**	**454**	**2,642**

	2023 £m	2022 £m
Current	**288**	240
Non-current	**2,354**	2,299
	2,642	2,539

1. In the year, environmental provisions decreased by £176 million as a result of the change in the real discount rate from 0.5% to 1.5% (see note 5 for details). Decommissioning provisions decreased by £48 million with an associated decrease in the carrying amount of property, plant and equipment of £48 million.

26. Provisions continued

Environmental provisions

We recognise environmental provisions for the estimated restoration and remediation costs relating to a number of sites owned and managed by subsidiary undertakings, together with certain US sites that National Grid no longer owns. The environmental provision is as follows:

	2023			2022		
	Discounted £m	Real undiscounted £m	Real discount rate	Discounted £m	Real undiscounted £m	Real discount rate
UK sites	123	138	1.5%	152	160	0.5%
US sites	1,768	2,006	1.5%	1,725	1,789	0.5%
	1,891	2,144		1,877	1,949	

The remediation expenditure in the US is expected to be incurred until 2070, of which the majority relates to three Superfund sites (being sites where hazardous substances are present as a result of the historical operations of manufactured gas plants in Brooklyn, New York). The weighted average duration of the cash flows is 11 years. Under the terms of our rate plans, we are entitled to recovery of environmental clean-up costs from rate payers.

The provision is calculated based on management's best estimate of the real cash flows that will be required discounted at a real discount rate, calculated based on the US government bond yield curve and the weighted average life of the provisions. The undiscounted amount is the best estimate of the actual cash flows that will be required with regard to these uncertainties.

A number of estimation uncertainties affect the calculation of these provisions, including the impact of and possibility of changes to regulations, the accuracy of site surveys, unexpected contaminants, transportation costs, the impact of alternative technologies, the expected timing and duration of cash flows, and changes in the real discount rate. These provisions incorporate our best estimate of the financial effect of these uncertainties, but future changes in any of the assumptions could materially impact the calculation of the provision.

The remediation expenditure in the UK relates to old gas manufacturing sites and also to electricity transmission sites. Cash flows are expected to be incurred until 2069. The uncertainties regarding the calculation of this provision are similar to those considered in respect of US sites.

Changes in the provision arising from revised estimates, discount rates or changes in the expected timing of expenditure are recognised in the income statement. We have included sensitivity analysis in note 35. The cost of remediation may also vary from the amounts provided for as regulations might change or additional work may be required once full site surveys have been conducted. The facts and circumstances relating to particular cases are evaluated regularly in determining whether an environmental provision should be revised (see note 30).

Decommissioning provisions

We recognise provisions for decommissioning costs for various assets we are required to remove at the end of their lives, including the safe removal of asbestos for certain of our generation units and the restoration of seabeds in respect of our interconnectors. Provisions to decommission significant portions of our regulated transmission and distribution assets are not recognised where no legal obligations exist and where a realistic alternative exists to incurring costs to decommission the assets at the end of their lives. In any case, even if a legal or constructive obligation did exist, it is not currently determinable when remediation work would take place and therefore no provision would be recorded at this point.

An initial estimate of decommissioning costs attributable to property, plant and equipment is recorded as part of the original cost of the related property, plant and equipment. Changes in the provision arising from revised estimates, discount rates or changes in the expected timing of expenditure that relates to property, plant and equipment are recorded as adjustments to their carrying value and depreciated prospectively over their remaining estimated useful economic lives. Expenditure is expected to be incurred until 2108.

Other provisions

Included within other provisions at 31 March 2023 are the following amounts:

- £182 million (2022: £163 million) of estimated liabilities in respect of past events insured by insurance subsidiary undertakings, including employer liability claims. In accordance with insurance industry practice, these estimates are based on experience from previous years, but we currently expect that cash flows will be incurred until 2037;
- £108 million (2022: £121 million) of estimated liabilities in respect of interconnector excess revenues which will be repayable in future reporting periods in accordance with the cap and floor regime constructed by Ofgem (see note 3). These estimates are based on the respective interconnectors' performance against their cumulative caps and cash outflows will be required to settle these liabilities by the financial year ending 31 March 2028;
- £37 million (2022: £28 million) in respect of onerous lease commitments and rates payable on surplus properties with expenditure expected to be incurred until 2039;
- £48 million (2022: £26 million) in respect of emissions provisions with expenditure expected to be incurred until 2024; and
- £5 million (2022: £17 million) relating to restructuring provisions, which are recognised when a formal restructuring plan is in place and a valid expectation has been raised with those affected by it. In 2023, we continued to undertake design and implementation activities in respect of our cost efficiency programme, which resulted in the recognition of an increased provision of £2 million in the year (2022: £16 million). The income statement expense relating to the provision has been treated as an exceptional item, and details are provided in note 5.

27. Share capital

Ordinary share capital represents the total number of shares issued which are publicly traded. We also disclose the number of treasury shares the Company holds, which are shares that the Company has bought itself, predominantly to actively manage scrip issuances and settle employee share option and reward plan liabilities.

Share capital is accounted for as an equity instrument. An equity instrument is any contract that includes a residual interest in the consolidated assets of the Company after deducting all its liabilities and is recorded at the proceeds received, net of direct issue costs, with an amount equal to the nominal amount of the shares issued included in the share capital account and the balance recorded in the share premium account.

	Allotted, called-up and fully paid	
	Shares million	Nominal value £m
At 1 April 2021	3,815	474
Issued during the year in lieu of dividends[1]	89	11
At 31 March 2022	3,904	485
Issued during the year in lieu of dividends[1]	26	3
At 31 March 2023	**3,930**	**488**

1. The issue of shares under the scrip dividend programme is considered to be a bonus issue under the terms of the Companies Act 2006, and the nominal value of the shares is charged to the share premium account.

The share capital of the Company consists of ordinary shares of $12^{204}/_{473}$ pence nominal value each including ADSs. The ordinary shares and ADSs (each of which represents five ordinary shares) allow holders to receive dividends and vote at general meetings of the Company. The Company holds treasury shares but may not exercise any rights over these shares including the entitlement to vote or receive dividends. There are no restrictions on the transfer or sale of ordinary shares.

In line with the provisions of the Companies Act 2006, the Company has amended its Articles of Association and ceased to have authorised share capital.

The Company is conducting a share forfeiture programme following the completion of a tracing and notification exercise to any shareholders who have not had contact with the Company over the past 12 years, in accordance with the provisions set out in the Company's Articles of Association. Under the share forfeiture programme, the shares and dividends associated with shares of untraced members have been forfeited, with the resulting proceeds transferred to the Company to use in line with the Company's strategy in relation to corporate responsibility. During the financial year, the Company received £5 million (2022: £16 million) of proceeds from the sale of untraced shares and derecognised £5 million (2022: £32 million) of liabilities related to unclaimed dividends, which are reflected in share premium and the income statement respectively.

Treasury shares

At 31 March 2023, the Company held 254 million (2022: 259 million) of its own shares. The market value of these shares as at 31 March 2023 was £2,783 million (2022: £3,038 million).

For the benefit of employees and in connection with the operation of the Company's various share plans, the Company made the following transactions in respect of its own shares during the year ended 31 March 2023:

i. During the year, 3 million (2022: 4 million) treasury shares were gifted to National Grid Employee Share Trusts and 2 million (2022: 2 million) treasury shares were reissued in relation to employee share schemes, in total representing approximately 0.1% (2022: 0.2%) of the ordinary shares in issue as at 31 March 2023. The nominal value of these shares was £1 million (2022: £1 million) and the total proceeds received were £16 million (2022: £17 million). National Grid settles share awards under its Long-Term Incentive Plan and the Save As You Earn scheme, by the transfer of treasury shares to its employee share trusts.

ii. During the year, the Company made payments totalling £4 million (2022: £3 million) to National Grid Employee Share Trusts to enable the Trustees to make purchases of National Grid plc shares to settle share awards in relation to all employee share plans and discretionary reward plans. The cost of such purchases is deducted from retained earnings in the period that the transaction occurs.

The maximum number of ordinary shares held in treasury during the year was 259 million (2022: 266 million) representing approximately 6.6% (2022: 6.8%) of the ordinary shares in issue as at 31 March 2023 and having a nominal value of £32 million (2022: £33 million).

28. Other equity reserves

Other equity reserves are different categories of equity as required by accounting standards and represent the impact of a number of our historical transactions or fair value movements on certain financial instruments that the Company holds.

Other equity reserves comprise the translation reserve (see note 1C), cash flow hedge reserve and the cost of hedging reserve (see note 32), debt instruments at fair value through other comprehensive income reserve (FVOCI debt) and equity investments at fair value through other comprehensive income reserve (FVOCI equity) (see note 15), the capital redemption reserve and the merger reserve.

The merger reserve arose as a result of the application of merger accounting principles under the then prevailing UK GAAP, which under IFRS 1 was retained for mergers that occurred prior to the IFRS transition date. Under merger accounting principles, the difference between the carrying amount of the capital structure of the acquiring vehicle and that of the acquired business was treated as a merger difference and included within reserves. The merger reserve represents the difference between the carrying value of subsidiary undertaking investments and their respective capital structures following the Lattice demerger from BG Group plc and the 1999 Lattice refinancing.

The cash flow hedge reserve will amortise as the committed future cash flows from borrowings are paid or capitalised in fixed assets (as described in note 32). See note 15 for further detail on FVOCI debt and FVOCI equity reserves; and note 32 in respect of cost of hedging reserve.

As the amounts included in other equity reserves are not attributable to any of the other classes of equity presented, they have been disclosed as a separate classification of equity.

	Translation £m	Cash flow hedge £m	Cost of hedging £m	FVOCI equity £m	FVOCI debt £m	Own credit £m	Capital redemption £m	Merger £m	Total £m
At 1 April 2020	1,310	(75)	(50)	25	31	10	19	(5,165)	(3,895)
Exchange adjustments[1]	(1,345)	—	—	—	—	—	—	—	(1,345)
Net gains/(losses) taken to equity	—	14	11	36	80	(11)	—	—	130
Share of net losses of associates taken to equity	—	1	—	—	—	—	—	—	1
Transferred to profit or loss	—	56	3	—	—	—	—	—	59
Net losses in respect of cash flow hedging of capital expenditure	—	(14)	—	—	—	—	—	—	(14)
Tax	—	(13)	8	(10)	—	2	—	—	(13)
Cash flow hedges transferred to the statement of financial position, net of tax	—	(17)	—	—	—	—	—	—	(17)
At 1 April 2021	(35)	(48)	(28)	51	111	1	19	(5,165)	(5,094)
Exchange adjustments[1]	629	—	—	—	—	—	—	—	629
Net losses taken to equity[2]	—	(96)	(2)	(70)	(11)	(1)	—	—	(180)
Share of net gains of associates taken to equity	—	1	—	—	—	—	—	—	1
Transferred to profit or loss	—	40	(1)	—	—	—	—	—	39
Net losses in respect of cash flow hedging of capital expenditure	—	(1)	—	—	—	—	—	—	(1)
Tax	—	11	2	19	3	—	—	—	35
Cash flow hedges transferred to the statement of financial position, net of tax	—	8	—	—	—	—	—	—	8
At 1 April 2022	594	(85)	(29)	—	103	—	19	(5,165)	(4,563)
Exchange adjustments[1]	882	—	—	—	—	—	—	—	882
Exchange differences reclassified to the consolidated income statement on disposal	(170)	—	—	—	—	—	—	—	(170)
Net gains/(losses) taken to equity	—	142	(12)	—	(25)	—	—	—	105
Share of net gains of associates taken to equity	—	1	—	—	—	—	—	—	1
Transferred to profit or loss	—	(136)	—	—	—	—	—	—	(136)
Net gains in respect of cash flow hedging of capital expenditure	—	10	—	—	—	—	—	—	10
Tax	—	2	3	—	1	—	—	—	6
Cash flow hedges transferred to the statement of financial position, net of tax	—	5	—	—	—	—	—	—	5
At 31 March 2023	**1,306**	**(61)**	**(38)**	**—**	**79**	**—**	**19**	**(5,165)**	**(3,860)**

1. The exchange adjustments recorded in the translation reserve comprise a gain of £1,080 million (2022: gain of £754 million; 2021: loss of £1,507 million) relating to the translation of foreign operations offset by a loss of £198 million (2022: loss of £125 million; 2021: gain of £183 million) relating to borrowings, cross-currency swaps and foreign exchange forward contracts used to hedge the net investment in non-sterling denominated subsidiaries.
2. In the year ended 31 March 2022, the Group disposed of its equity instruments related to shares held as part of a portfolio of financial instruments which back some long-term employee liabilities. The equity instruments were previously measured at FVOCI and prior to the disposal the Group recognised a gain of £12 million. The accumulated gain of £82 million recognised in other comprehensive income in the year ended 31 March 2022 was transferred to retained earnings on disposal.

29. Net debt

We define net debt as the amount of borrowings and financing derivatives less cash and current financial investments.

(a) Composition of net debt

Net debt is comprised as follows:

	2023 £m	2022 £m	2021 £m
Cash and cash equivalents (see note 20)	**163**	204	157
Current financial investments (see note 15)	**2,605**	3,145	2,342
Borrowings (see note 21)	**(42,985)**	(45,465)	(31,220)
Financing derivatives[1] (see note 17)	**(756)**	(693)	175
	(40,973)	(42,809)	(28,546)

1. The financing derivatives balance included in net debt excludes the commodity derivatives (see note 17).

(b) Analysis of changes in net debt

	Notes	Cash and cash equivalents £m	Financial investments[1] £m	Borrowings £m	Financing derivatives £m	Total[2] £m
At 1 April 2020		73	1,998	(30,794)	133	(28,590)
Cash flow		95	429	(2,336)	4	(1,808)
Fair value gains and losses		—	14	159	31	204
Foreign exchange movements		(7)	(106)	1,710	—	1,597
Interest income/(charges)	6	—	7	(946)	7	(932)
Other non-cash movements		—	—	(136)	—	(136)
Reclassification to held for sale	10	(4)	—	1,123	—	1,119
At 1 April 2021		157	2,342	(31,220)	175	(28,546)
Cash flow	29(c)	9	752	(9,993)	262	(8,970)
Fair value gains and losses		—	(12)	286	(604)	(330)
Foreign exchange movements		5	53	(652)	—	(594)
Interest income/(charges)	6	—	43	(1,177)	(59)	(1,193)
Other non-cash movements		—	(15)	34	—	19
Acquisition of NGED	37	44	69	(8,286)	26	(8,147)
Reclassification to held for sale[3]	10	(11)	(87)	5,543	(493)	4,952
At 1 April 2022		204	3,145	(45,465)	(693)	(42,809)
Cash flow	29(c)	(48)	(651)	5,268	455	5,024
Fair value gains and losses		—	(18)	367	(348)	1
Foreign exchange movements		7	61	(1,311)	—	(1,243)
Interest income/(charges)	6	—	73	(1,658)	(170)	(1,755)
Other non-cash movements		—	—	(283)	—	(283)
Reclassification to held for sale[3]	10	—	(5)	97	—	92
At 31 March 2023		**163**	**2,605**	**(42,985)**	**(756)**	**(40,973)**
Balances at 31 March 2023 comprise:						
Non-current assets		—	—	—	263	263
Current assets		163	2,605	—	100	2,868
Current liabilities		—	—	(2,955)	(93)	(3,048)
Non-current liabilities		—	—	(40,030)	(1,026)	(41,056)
		163	**2,605**	**(42,985)**	**(756)**	**(40,973)**

1. Cash flows on current financial investments comprise £65 million (2022: £29 million; 2021: £7 million) of interest received and £586 million of cash inflows (2022: £781 million outflows; 2021: £436 million outflows) of net cash flow movements in short-term financial investments, as presented in the consolidated cash flow statement.
2. Includes accrued interest at 31 March 2023 of £401 million (2022: £351 million; 2021: £263 million).
3. Reclassification to held for sale in the year ended 31 March 2022 represented the opening net debt position of the UK Gas Transmission business (see note 10). In the current year the reclassification to held for sale relates to the disposal of NECO which was not classified as a discontinued operation.

29. Net debt continued

(c) Reconciliation of cash flow from liabilities within net debt to cash flow statement

	2023		2022		2021	
	Borrowings and other £m	**Financing derivatives £m**	Borrowings and other £m	Financing derivatives £m	Borrowings and other £m	Financing derivatives £m
Cash flows per financing activities section of cash flow statement:						
Proceeds received from loans	**11,908**	**—**	12,347	—	5,150	—
Repayment of loans	**(15,260)**	**—**	(1,261)	—	(1,654)	—
Payments of lease liabilities	**(155)**	**—**	(117)	—	(107)	—
Net movements in short-term borrowings	**(511)**	**—**	(11)	—	(619)	—
Cash inflows on derivatives	**—**	**190**	—	20	—	17
Cash outflows on derivatives	**—**	**(118)**	—	(114)	—	(183)
Interest paid	**(1,277)**	**(153)**	(998)	(55)	(711)	(42)
Cash flows per financing activities section of cash flow statement	**(5,295)**	**(81)**	9,960	(149)	2,059	(208)
Adjustments:						
Non-net debt-related items	**27**	**—**	33	—	29	—
Derivative cash (outflow)/inflow in relation to capital expenditure	**—**	**(12)**	—	(8)	—	10
Derivative cash inflows per investing section of cash flow statement	**—**	**—**	—	17	—	225
Derivative cash outflows per investing section of cash flow statement	**—**	**(362)**	—	(122)	—	(81)
Cash flows relating to financing liabilities within net debt	**(5,268)**	**(455)**	9,993	(262)	2,088	(54)
Analysis of changes in net debt:						
Borrowings	**(5,268)**	**—**	9,993	—	2,088	—
Financing derivatives	**—**	**(455)**	—	(262)	—	(54)
Cash flow movements relating to financing liabilities within net debt	**(5,268)**	**(455)**	9,993	(262)	2,088	(54)

(d) Reconciliation of changes in liabilities arising from financing activities

The table below reconciles changes in liabilities arising from financing activities, including both changes arising from cash flows and non-cash changes. For the purposes of this table, the liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the consolidated cash flow statement within financing activities. As a result we have separately disclosed the reconciliation below, excluding derivatives associated with our net investment hedges and derivatives associated with the hedging of capital expenditure, given that they are both classified in the consolidated cash flow statement within investing activities.

	Notes	Borrowings £m	Financing derivatives £m	Total £m
At 1 April 2020		(30,794)	228	(30,566)
Cash flow[1]		(2,336)	158	(2,178)
Fair value gains and losses		159	(301)	(142)
Foreign exchange movements		1,710	—	1,710
Interest charges	6	(946)	11	(935)
Other non-cash movements		(136)	—	(136)
Reclassification to held for sale	10	1,123	—	1,123
At 1 April 2021		(31,220)	96	(31,124)
Cash flow		(9,993)	149	(9,844)
Fair value gains and losses		286	(472)	(186)
Foreign exchange movements		(652)	—	(652)
Interest charges	6	(1,177)	(54)	(1,231)
Other non-cash movements		34	—	34
Acquisition of NGED	37	(8,286)	26	(8,260)
Reclassification to held for sale[2]	10	5,543	(495)	5,048
At 1 April 2022		(45,465)	(750)	(46,215)
Cash flow		5,268	81	5,349
Fair value gains and losses		367	46	413
Foreign exchange movements		(1,311)	—	(1,311)
Interest charges	6	(1,658)	(170)	(1,828)
Other non-cash movements		(283)	—	(283)
Reclassification to held for sale[2]		97	—	97
At 31 March 2023		**(42,985)**	**(793)**	**(43,778)**

1. Amounts shown for the year ended 31 March 2021 include financing cash flows attributable to the UK Gas Transmission business which was classified as a discontinued operation (see notes 1 and 10). In order to reconcile financing cash flows to the consolidated cash flow statement for the year ended 31 March 2021, cash flows from financing activities for both continuing operations and discontinued operations should be included, along with non-debt related items in note 29(c).
2. Reclassification to held for sale in the year ended 31 March 2022 represented the opening net debt position of the UK Gas Transmission business (see note 10).

30. Commitments and contingencies

Commitments are those amounts that we are contractually required to pay in the future as long as the other party meets its obligations. These commitments primarily relate to energy purchase agreements and contracts for the purchase of assets which, in many cases, extend over a long period of time. We also disclose any contingencies, which include guarantees that companies have given, where we pledge assets against current obligations that will remain for a specific period.

Contingent assets are disclosed where the Group concludes that an inflow of economic benefits is probable.

	2023 £m	2022 £m
Future capital expenditure		
Contracted for but not provided[1]	**3,035**	2,881
Energy purchase commitments[2]		
Less than 1 year	**1,391**	1,386
In 1 to 2 years	**985**	1,366
In 2 to 3 years	**1,057**	1,219
In 3 to 4 years	**912**	1,189
In 4 to 5 years	**929**	1,088
More than 5 years	**13,920**	12,266
	19,194	18,514
Guarantees		
Guarantee of subleases for US properties (expire up to 2040)	**219**	149
Guarantees of certain obligations of Grain LNG (expire up to 2025)	**32**	31
Guarantees of certain obligations for construction of HVDC West Coast Link	**–**	84
Guarantees of certain obligations of National Grid North Sea Link Limited (various expiry dates)	**281**	569
Guarantees of certain obligations of St William Homes LLP (various expiry dates)	**44**	44
Guarantees of certain obligations of National Grid IFA 2 Limited (expected expiry 2023)	**144**	130
Guarantees of certain obligations of National Grid Viking Link Limited (expected expiry 2024)	**1,185**	1,177
Other guarantees and letters of credit (various expiry dates)	**321**	380
	2,226	2,564

1. Included within future capital expenditure for the year ended 31 March 2022 was £205 million pertaining to the UK Gas Transmission business.
2. Energy purchase commitments relate to contractual commitments to purchase electricity or gas that are used to satisfy physical delivery requirements to our customers or for energy that we use ourselves (i.e. normal purchase, sale or usage) and hence are accounted for as ordinary purchase contracts (see note 32(f)). Details of commodity contract derivatives that do not meet the normal purchase, sale or usage criteria, and hence are accounted for as derivative contracts, are shown in note 17(b).

Through the ordinary course of our operations, we are party to various litigation, claims and investigations. We do not expect the ultimate resolution of any of these proceedings to have a material adverse effect on our results of operations, cash flows or financial position.

Contingent liabilities

The Group is subject to national and local laws governing the clean-up of sites used previously in its operations. These laws and associated regulations require the Group to take future actions to remediate the effects on the environment of the release of chemicals and other substances. Such contingencies may exist for various sites including manufactured gas plants, power stations and water courses that were impacted by those activities. The ultimate costs of these clean-ups involve estimation uncertainty as work may be impacted by changing regulations and additional work may be required once sites have been fully surveyed. The estimated clean-up costs have been provided for in note 26 based upon management's best estimate of the likely future cash flows. Whilst the amounts of future possible costs that are not provided for could be material to the Group's results in the period when they are recognised, it is not possible to reliably estimate the amounts involved at this time. As many environmental remediation costs are recoverable through the Group's rate-setting processes, the Group does not expect these costs to have a material impact on its liquidity.

31. Related party transactions

Related parties include joint ventures, associates, investments and key management personnel.

The following significant transactions with related parties were in the normal course of business. Amounts receivable from and payable to related parties are due on normal commercial terms.

	2023 £m	2022 £m	2021 £m
Sales: Goods and services supplied to a pension plan	**—**	3	3
Sales: Goods and services supplied to joint ventures[1]	**100**	284	79
Sales: Goods and services supplied to associates	**1**	—	1
Sales: Goods and services supplied to subsidiaries of an associate	**6**	—	—
Purchases: Goods and services received from joint ventures[2]	**—**	19	35
Purchases: Goods and services received from associates[2]	**31**	41	43
Receivables from joint ventures[3]	**58**	43	263
Receivables from associates	**—**	1	—
Receivables from subsidiaries of an associate	**8**	—	—
Payables to joint ventures[4]	**19**	247	17
Payables to associates	**1**	4	3
Dividends received from joint ventures[5]	**150**	123	49
Dividends received from associates[6]	**32**	35	32

1. During the year, £76 million of sales were made to Emerald Energy Venture LLC (2022: £74 million; 2021: £50 million) and a further £7 million and £6 million of sales were made to NGET/SPT Upgrades Limited (a joint venture) in 2022 and 2021 respectively. Prior to the Group's disposal of its equity interest in St William Homes LLP in the year ended 31 March 2022, £202 million (2021: £14 million) of property sites were sold to St William Homes LLP.
2. During the year, the Group received goods and services from a number of US associates, both for the transportation of gas and for pipeline services in the US, most notably £22 million (2022: £38 million; 2021: £41 million) of purchases from Millennium Pipeline Company LLC in the period up until disposal on 7 October 2022. The Group purchased assets of £nil (2022: £18 million; 2021: £17 million) from BritNed Development Limited. The Group also made purchases of £nil (2022: £0.3 million; 2021: £5 million) from NGET/SPT Upgrades Limited.
3. Amounts receivable from joint ventures include £55 million (2022: £33 million; 2021: £19 million) from Emerald Energy Venture LLC. Amounts receivable in comparative periods include amounts due from St William Homes LLP, which is no longer a related party of the Group (2022: £nil; 2021: £241 million).
4. Amounts payable to joint ventures in the prior year included £223 million due to Community Offshore Wind, LLC, NGV's joint venture with RWE Renewables, in respect of a capital call to NGV following the successful auction of six seabed leases in New York. This was settled in the year ended 31 March 2023.
5. Includes dividends of £84 million (2022: £39 million; 2021: £18 million) received from BritNed Development Limited and £47 million (2022: £77 million; 2021: £25 million) from Nemo Link Limited.
6. Includes dividends of £16 million (2022: £34 million; 2021: £31 million) received from Millennium Pipeline Company LLC in the period up until disposal on 7 October 2022.

Details of investments in principal subsidiary undertakings, joint ventures and associates are disclosed in note 34, and information relating to pension fund arrangements is disclosed in note 25. For details of Directors' and key management remuneration, refer to the Directors' Remuneration Report on pages 90 –106 and note 4(c).

32. Financial risk management

Our activities expose us to a variety of financial risks including credit risk, liquidity risk, capital risk, currency risk, interest rate risk, inflation risk and commodity price risk. Our risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential volatility of financial performance from these risks. We use financial instruments, including derivative financial instruments, to manage these risks.

Risk management related to financing activities is carried out by a central treasury department under policies approved by the Finance Committee of the Board. The objective of the treasury department is to manage funding and liquidity requirements, including managing associated financial risks, to within acceptable boundaries. The Finance Committee provides written principles for overall risk management and written policies covering the following specific areas: foreign exchange risk, interest rate risk, credit risk, liquidity risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity. The Finance Committee has delegated authority to administer the commodity price risk policy and credit policy for US-based commodity transactions to the Energy Procurement Risk Management Committee and the National Grid USA Board of Directors. Details of key activities in the current year are set out in the Finance Committee report on page 89.

We have exposure to the following risks, which are described in more detail below:

- credit risk;
- liquidity risk;
- currency risk;
- interest rate risk;
- commodity price risk;
- valuation risk; and
- capital risk.

Where appropriate, derivatives and other financial instruments used for hedging currency and interest rate risk exposures are formally designated as fair value, cash flow or net investment hedges as defined in IFRS 9. Hedge accounting allows the timing of the profit or loss impact of qualifying hedging instruments to be recognised in the same reporting period as the corresponding impact of hedged exposures. To qualify for hedge accounting, documentation is prepared specifying the risk management objective and strategy, the component transactions and methodology used for measurement of effectiveness.

32. Financial risk management continued

Hedge accounting relationships are designated in line with risk management activities further described below. The categories of hedging entered into are as follows:

- currency risk arising from our forecast foreign currency transactions (capital expenditure or revenues) is designated in cash flow hedges;
- currency risk arising from our net investments in foreign operations is designated in net investment hedges; and
- currency and interest rate risk arising from borrowings are designated in cash flow or fair value hedges.

Critical terms of hedging instruments and hedged items are transacted to match on a 1:1 ratio by notional values. Hedge ineffectiveness can nonetheless arise from inherent differences between derivatives and non-derivative instruments and other market factors including credit, correlations, supply and demand, and market volatilities. Ineffectiveness is recognised in the remeasurements component of finance income and costs (see note 6). Hedge accounting is discontinued when a hedging relationship no longer qualifies for hedge accounting.

Certain hedging instrument components are treated separately as costs of hedging with the gains and losses deferred in a component of other equity reserves and released systematically into profit or loss to correspond with the timing and impact of hedged exposures, or released in full to finance costs upon an early discontinuation of a hedging relationship.

Refer to sections (c) currency risk and (d) interest rate risk below for further details on hedge accounting.

(a) Credit risk

We are exposed to the risk of loss resulting from counterparties' default on their commitments including failure to pay or make a delivery on a contract. This risk is inherent in our commercial business activities. Exposure arises from derivative financial instruments, deposits with banks and financial institutions, trade receivables and committed transactions with wholesale and retail customers.

Treasury credit risk

Counterparty risk arises from the investment of surplus funds and from the use of derivative financial instruments. As at 31 March 2023, the following limits were in place for investments and derivative financial instruments held with banks and financial institutions:

	Maximum limit £m	Utilisation of maximum limit £m	Long-term limit £m	Utilisation of long-term limit £m
Triple 'A' G7 sovereign entities (AAA)	2,502	—	1,877	—
Triple 'A' vehicles (AAA)	500	—	—	—
Triple 'A' range institutions and non-G7 sovereign entities (AAA)	2,275	—	1,706	—
Double 'A+' G7 sovereign entities (AA+)	2,275	—	1,706	—
Double 'A' range institutions (AA)	1,365 to 1,820	27 to 238	1,024 to 1,365	18 to 222
Single 'A' range institutions (A)	455 to 910	8 to 498	341 to 682	6 to 340

The maximum limit applies to all transactions, including long-term transactions. The long-term limit applies to transactions which mature in more than 12 months' time.

As at 31 March 2023 and 2022, we had a number of exposures to individual counterparties. In accordance with our treasury policies, counterparty credit exposure utilisations are monitored daily against the counterparty credit limits. Counterparty credit ratings and market conditions are reviewed continually with limits being revised and utilisation adjusted, if appropriate. Management does not expect any significant losses from non-performance by these counterparties. Further information on financial investments subject to impairment provisioning is included in note 15.

Commodity credit risk

The credit policy for US-based commodity transactions is owned by the Finance Committee to the Board, which establishes controls and procedures to determine, monitor and minimise the credit exposure to counterparties.

Wholesale and retail credit risk

Our principal commercial exposure in the UK is governed by the credit rules within the regulated code: Connection and Use of System Code. This sets out the level of credit relative to the RAV for each credit rating. In the US, we are required to supply electricity and gas under state regulations. Our policies and practices are designed to limit credit exposure by collecting security deposits prior to providing utility services, or after utility services have commenced if certain applicable regulatory requirements are met. Collection activities are managed on a daily basis. Sales to retail customers are usually settled in cash, cheques, electronic bank payments or by using major credit cards. We are committed to measuring, monitoring, minimising and recording counterparty credit risk in our wholesale business. The utilisation of credit limits is regularly monitored, and collateral is collected against these accounts when necessary.

In March 2020, the Group's US distribution business temporarily ceased certain cash collection and termination activities in response to regulatory instructions following the COVID-19 pandemic. At the time this resulted in the recognition of expected credit losses. Cash collection and customer termination activities resumed in New England and New York during the year ended 31 March 2022. In the years ended 31 March 2023 and 2022, the Group's US distribution business has also been supported by certain government and state COVID-19 funding programmes, which has been factored into the assessment of expected credit losses for the year (see note 19 for further details).

32. Financial risk management continued

(a) Credit risk continued

Offsetting financial assets and liabilities

The following tables set out our financial assets and liabilities which are subject to offset and to enforceable master netting arrangements or similar agreements. The tables show the amounts which are offset and reported net in the statement of financial position. Amounts which cannot be offset under IFRS, but which could be settled net under terms of master netting arrangements if certain conditions arise, and with collateral received or pledged, are presented to show National Grid's net exposure.

Financial assets and liabilities on different transactions would only be reported net in the balance sheet if the transactions were with the same counterparty, a currently enforceable legal right of offset exists and the cash flows were intended to be settled on a net basis.

Amounts which do not meet the criteria for offsetting on the statement of financial position, but could be settled net in certain circumstances, principally relate to derivative transactions under ISDA agreements, where each party has the option to settle amounts on a net basis in the event of default of the other party.

Commodity contract derivatives that have not been offset on the balance sheet may be settled net in certain circumstances under ISDA or North American Energy Standards Board (NAESB) agreements.

For bank account balances and bank overdrafts, there are no 'Gross amounts offset' under cash pooling arrangements (2022: £nil). Our UK bank accounts for National Grid subsidiaries previously participated in GBP, EUR and USD Composite Accounting System overdraft facilities subject to offsetting gross and net overdraft limits. EUR and USD offsetting arrangements were discontinued in the year ended 31 March 2021 and GBP offsetting arrangements have no impact as at 31 March 2023 and 2022. In the US, no offsetting arrangements exist, and cash transactions are settled through National Grid USA Service Company, Inc. (Service Company) bank accounts with subsequent intercompany payables and receivables reported by subsidiaries with the Service Company.

The gross amounts offset for trade payables and receivables, which are subject to general terms and conditions, are insignificant.

				Related amounts available to be offset but not offset in statement of financial position		
At 31 March 2023	**Gross carrying amounts £m**	**Gross amounts offset £m**	**Net amount presented in statement of financial position £m**	**Financial instruments £m**	**Cash collateral received/ pledged £m**	**Net amount £m**
Assets						
Financing derivatives	**363**	**–**	**363**	**(204)**	**(76)**	**83**
Commodity contract derivatives	**66**	**–**	**66**	**(28)**	**–**	**38**
	429	**–**	**429**	**(232)**	**(76)**	**121**
Liabilities						
Financing derivatives	**(1,119)**	**–**	**(1,119)**	**204**	**681**	**(234)**
Commodity contract derivatives	**(174)**	**–**	**(174)**	**28**	**19**	**(127)**
	(1,293)	**–**	**(1,293)**	**232**	**700**	**(361)**
	(864)	**–**	**(864)**	**–**	**624**	**(240)**

				Related amounts available to be offset but not offset in statement of financial position		
At 31 March 2022	Gross carrying amounts £m	Gross amounts offset £m	Net amount presented in statement of financial position £m	Financial instruments £m	Cash collateral received/ pledged £m	Net amount £m
Assets						
Financing derivatives	298	–	298	(136)	(55)	107
Commodity contract derivatives	289	–	289	(8)	(50)	231
	587	–	587	(144)	(105)	338
Liabilities						
Financing derivatives	(991)	–	(991)	136	771	(84)
Commodity contract derivatives	(22)	–	(22)	8	3	(11)
	(1,013)	–	(1,013)	144	774	(95)
	(426)	–	(426)	–	669	243

32. Financial risk management continued

(b) Liquidity risk

Our policy is to determine our liquidity requirements by the use of both short-term and long-term cash flow forecasts. These forecasts are supplemented by a financial headroom analysis which is used to assess funding requirements for at least a 24-month period and maintain adequate liquidity for a continuous 12-month period.

We believe our contractual obligations, including those shown in commitments and contingencies in note 30, can be met from existing cash and investments, operating cash flows and other financing that we reasonably expect to be able to secure in the future, together with the use of committed facilities if required.

Our debt agreements and banking facilities contain covenants, including those relating to the periodic and timely provision of financial information by the issuing entity, restrictions on disposals and financial covenants, such as restrictions on the level of subsidiary indebtedness and interest coverage. Failure to comply with these covenants, or to obtain waivers of those requirements, could in some cases trigger a right, at the lender's discretion, to require repayment of some of our debt and may restrict our ability to draw upon our facilities or access the capital markets.

The following is a payment profile of our financial liabilities and derivatives:

At 31 March 2023	Less than 1 year £m	1 to 2 years £m	2 to 3 years £m	More than 3 years £m	Total £m
Non-derivative financial liabilities					
Borrowings, excluding lease liabilities	(2,433)	(2,722)	(2,614)	(33,866)	(41,635)
Interest payments on borrowings[1]	(1,220)	(1,244)	(1,148)	(15,301)	(18,913)
Lease liabilities	(118)	(102)	(86)	(610)	(916)
Other non-interest-bearing liabilities	(4,232)	(416)	–	–	(4,648)
Contingent consideration	(19)	–	–	–	(19)
Derivative financial liabilities					
Financing derivatives – receipts[2]	1,174	2,154	2,381	7,364	13,073
Financing derivatives – payments[2]	(1,461)	(2,483)	(2,705)	(8,335)	(14,984)
Commodity contract derivatives – receipts[2]	11	9	1	–	21
Commodity contract derivatives – payments[2]	(126)	(35)	(11)	(1)	(173)
Derivative financial assets					
Financing derivatives – receipts[2]	4,757	701	745	3,299	9,502
Financing derivatives – payments[2]	(4,679)	(676)	(719)	(3,183)	(9,257)
Commodity contract derivatives – receipts[2]	48	11	–	–	59
Commodity contract derivatives – payments[2]	(11)	(6)	(3)	–	(20)
	(8,309)	(4,809)	(4,159)	(50,633)	(67,910)

At 31 March 2022	Less than 1 year £m	1 to 2 years £m	2 to 3 years £m	More than 3 years £m	Total £m
Non-derivative financial liabilities					
Borrowings, excluding lease liabilities	(11,589)	(1,322)	(2,468)	(28,119)	(43,498)
Interest payments on borrowings[1]	(970)	(928)	(883)	(12,525)	(15,306)
Lease liabilities	(132)	(96)	(79)	(366)	(673)
Other non-interest-bearing liabilities	(3,979)	(336)	–	–	(4,315)
Contingent consideration	(37)	(8)	–	–	(45)
Derivative financial liabilities					
Financing derivatives – receipts[2]	3,149	1,008	2,075	4,726	10,958
Financing derivatives – payments[2]	(3,401)	(1,189)	(2,336)	(5,468)	(12,394)
Commodity contract derivatives – receipts[2]	1	1	–	–	2
Commodity contract derivatives – payments[2]	(29)	2	(1)	–	(28)
Derivative financial assets					
Financing derivatives – receipts[2]	4,512	316	1,427	464	6,719
Financing derivatives – payments[2]	(4,405)	(282)	(1,313)	(405)	(6,405)
Commodity contract derivatives – receipts[2]	234	37	3	–	274
Commodity contract derivatives – payments[2]	(52)	(8)	(3)	–	(63)
	(16,698)	(2,805)	(3,578)	(41,693)	(64,774)

1. The interest on borrowings is calculated based on borrowings held at 31 March without taking account of future issues. Floating rate interest is estimated using a forward interest rate curve as at 31 March. Payments are included on the basis of the earliest date on which the Company can be required to settle.
2. The receipts and payments line items for derivatives comprise gross undiscounted future cash flows, after considering any contractual netting that applies within individual contracts. Where cash receipts and payments within a derivative contract are settled net, and the amount to be received/(paid) exceeds the amount to be paid/(received), the net amount is presented within derivative receipts/(payments).

32. Financial risk management continued

(c) Currency risk

National Grid operates internationally with mainly pound sterling as the functional currency for the UK companies and US dollar for the US businesses. Currency risk arises from three major areas: funding activities, capital investment and related revenues, and holdings in foreign operations. This risk is managed using financial instruments including derivatives as approved by policy, typically cross-currency interest rate swaps, foreign exchange swaps and forwards.

Funding activities – our policy is to borrow in the most advantageous market available. Foreign currency funding gives rise to risk of volatility in the amount of functional currency cash to be repaid. This risk is reduced by swapping principal and interest back into the functional currency of the issuer. All foreign currency debt and transactions are hedged except where they provide a natural offset to assets elsewhere in the Group.

Capital investment and related revenues – capital projects often incur costs or generate revenues in a foreign currency, most often euro transactions done by the UK business. Our policy for managing foreign exchange transaction risk is to hedge contractually committed foreign currency cash flows over a prescribed minimum size, typically by buying euro forwards to hedge future expenditure and selling euro forwards to hedge future revenues. For hedges of forecast cash flows our policy is to hedge a proportion of highly probable cash flows.

Holdings in foreign operations – we are exposed to fluctuations on the translation into pounds sterling of our foreign operations. The policy for managing this translation risk is to issue foreign currency debt or to replicate foreign debt using derivatives that pay cash flows in the currency of the foreign operation. The primary managed exposure arises from dollar denominated assets and liabilities held by our US operations, with a smaller euro exposure in respect of joint venture investments.

Derivative financial instruments were used to manage foreign currency risk as follows:

	2023					2022				
	Sterling £m	**Euro £m**	**Dollar £m**	**Other £m**	**Total £m**	Sterling £m	Euro £m	Dollar £m	Other £m	Total £m
Cash and cash equivalents	**96**	**14**	**53**	**—**	**163**	111	—	93	—	204
Financial investments	**1,031**	**—**	**1,574**	**—**	**2,605**	1,725	—	1,420	—	3,145
Borrowings	**(14,473)**	**(11,045)**	**(15,741)**	**(1,726)**	**(42,985)**	(22,910)	(7,052)	(14,118)	(1,385)	(45,465)
Pre-derivative position	**(13,346)**	**(11,031)**	**(14,114)**	**(1,726)**	**(40,217)**	(21,074)	(7,052)	(12,605)	(1,385)	(42,116)
Derivative effect	**(6,751)**	**10,733**	**(6,476)**	**1,738**	**(756)**	(1,378)	6,849	(7,570)	1,406	(693)
Net debt position	**(20,097)**	**(298)**	**(20,590)**	**12**	**(40,973)**	(22,452)	(203)	(20,175)	21	(42,809)

The exposure to dollars largely relates to our net investment hedge activities and exposure to euros largely relates to hedges for our future non-sterling capital expenditure and associated revenues.

The currency exposure on other financial instruments is as follows:

	2023					2022				
	Sterling £m	**Euro £m**	**Dollar £m**	**Other £m**	**Total £m**	Sterling £m	Euro £m	Dollar £m	Other £m	Total £m
Trade and other receivables	**448**	**—**	**1,881**	**—**	**2,329**	407	—	1,788	—	2,195
Trade and other payables	**(1,624)**	**—**	**(2,629)**	**—**	**(4,253)**	(1,459)	—	(2,554)	—	(4,013)
Other non-current liabilities	**(147)**	**—**	**(269)**	**—**	**(416)**	(90)	—	(253)	—	(343)

The carrying amounts of other financial instruments are denominated in the above currencies, which in most instances are the functional currency of the respective subsidiaries. Our exposure to dollars is due to activities in our US subsidiaries. We do not have any other significant exposure to currency risk on these balances.

Hedge accounting for currency risk

Where available, derivatives transacted for hedging are designated for hedge accounting. Economic offset is qualitatively determined because the critical terms (currency and volume) of the hedging instrument match the hedged exposure. If a forecast transaction was no longer expected to occur, the cumulative gain or loss previously reported in equity would be transferred to the income statement. This has not occurred in the current or comparative years.

Cash flow hedging of currency risk of capital expenditure and revenues is designated as hedging the exposure to movements in the spot translation rates only. The timing of forecast transactions is not designated as a hedged risk. Gains and losses on hedging instruments arising from forward points and foreign currency basis spreads are excluded from designation and are recognised immediately in profit or loss, along with any hedge ineffectiveness. On recognition of the hedged purchase or sale in the financial statements, the associated hedge gains and losses, deferred in the cash flow hedge reserve in other equity reserves, are transferred out of reserves and included with the recognition of the underlying transaction. Where a non-financial asset or a non-financial liability results from a forecast transaction or firm commitment being hedged, the amounts deferred in reserves are included directly in the initial measurement of that asset or liability.

Net investment hedging is also designated as hedging the exposure to movements in spot translation rates only: spot-related gains and losses on hedging instruments are presented in the cumulative translation reserve within other equity reserves to offset gains or losses on translation of the hedged balance sheet exposure. Any ineffectiveness is recognised immediately in the income statement. Amounts deferred in the cumulative translation reserve with respect to net investment hedges are subsequently recognised in the income statement in the event of disposal of the overseas operations concerned. Any remaining amounts deferred in the cost of hedging reserve are also released to the income statement.

Hedges of foreign currency funding are designated as cash flow hedges or fair value hedges of forward exchange risk (hedging both currency and interest rate risk together, where applicable). Gains and losses arising from foreign currency basis spreads are excluded from designation and are treated as a cost of hedging, deferred initially in other equity reserves and released into profit or loss over the life of the hedging relationship. Hedge accounting for funding is described further in the interest rate risk section below.

32. Financial risk management continued

(d) Interest rate risk

National Grid's interest rate risk arises from our long-term borrowings. Our interest rate risk management policy is to seek to minimise total financing costs (being interest costs and changes in the market value of debt). Hedging instruments principally consist of interest rate and cross-currency swaps that are used to translate foreign currency debt into functional currency and to adjust the proportion of fixed rate and floating rate in the borrowings portfolio to within a range set by the Finance Committee of the Board. The benchmark interest rates hedged are currently based on LIBOR for USD and Sterling Overnight Index Average (SONIA) for GBP.

LIBOR is being replaced as an interest rate benchmark by alternative reference rates in certain currencies including our functional currencies, USD and GBP, and foreign currencies in which we operate. This impacts contracts including financial liabilities that pay LIBOR-based cash flows, and derivatives that receive or pay LIBOR-based cash flows. The change in benchmark also affects discount rates which will impact the valuations of certain liabilities. We have disclosed our exposure to LIBOR on our derivative portfolio in note 17, on our borrowings in note 21 and on our hedging arrangements in note 32(e). We are managing the risk by transitioning LIBOR cash flows to alternative reference rates on our affected contracts in line with the relevant jurisdictions. The migration project is under way, with all affected contracts where we previously paid or received GBP LIBOR amended in the prior year (see note 21). The Finance Committee of the Board has delegated to the treasury department the authority to determine which benchmarks are the most appropriate. A combination of LIBOR and the successor benchmarks, primarily GBP SONIA and USD Secured Overnight Financing Rate (SOFR), will be used in the portfolio during the migration period.

We also consider inflation risk and hold some inflation-linked borrowings. We believe that these provide a partial economic offset to the inflation risk associated with our UK inflation-linked revenues.

The table in note 21 sets out the carrying amount, by contractual maturity, of borrowings that are exposed to interest rate risk before taking into account interest rate swaps.

Net debt was managed using derivative financial instruments to hedge interest rate risk as follows:

	2023					2022				
	Fixed rate £m	**Floating rate £m**	**Inflation linked £m**	**Other[1] £m**	**Total £m**	Fixed rate £m	Floating rate £m	Inflation linked £m	Other[1] £m	Total £m
Cash and cash equivalents	**53**	**110**	**—**	**—**	**163**	82	118	—	4	204
Financial investments	**—**	**2,569**	**—**	**36**	**2,605**	—	3,107	—	38	3,145
Borrowings	**(36,631)**	**(1,744)**	**(4,610)**	**—**	**(42,985)**	(30,616)	(10,484)	(4,365)	—	(45,465)
Pre-derivative position	**(36,578)**	**935**	**(4,610)**	**36**	**(40,217)**	(30,534)	(7,259)	(4,365)	42	(42,116)
Derivative effect	**4,213**	**(4,869)**	**(100)**	**—**	**(756)**	2,860	(3,366)	(187)	—	(693)
Net debt position	**(32,365)**	**(3,934)**	**(4,710)**	**36**	**(40,973)**	(27,674)	(10,625)	(4,552)	42	(42,809)

1. Represents financial instruments which are not directly affected by interest rate risk, such as investments in equity or other similar financial instruments.

Hedge accounting for interest rate risk

Borrowings paying variable or floating rates expose National Grid to cash flow interest rate risk, partially offset by cash held at variable rates. Where a hedging instrument results in paying a fixed rate, it is designated as a cash flow hedge because it has reduced the cash flow volatility of the hedged borrowing. Changes in the fair value of the derivative are initially recognised in other comprehensive income as gains or losses in the cash flow hedge reserve, with any ineffective portion recognised immediately in the income statement.

Borrowings paying fixed rates expose National Grid to fair value interest rate risk. Where the hedging instrument pays a floating rate, it is designated as a fair value hedge because it has reduced the fair value volatility of the borrowing. Changes in the fair value of the derivative and changes in the fair value of the hedged item in relation to the risk being hedged are both adjusted on the balance sheet and offset in the income statement to the extent the fair value hedge is effective, with the residual difference remaining as ineffectiveness.

Both types of hedges are designated as hedging the currency and interest rate risk arising from changes in forward points. Amounts accumulated in the cash flow hedge reserve (cash flow hedges only) and the deferred cost of hedging reserve (both cash flow and fair value hedges) are reclassified from reserves to the income statement on a systematic basis as hedged interest expense is recognised. Adjustments made to the carrying value of hedged items in fair value hedges are similarly released to the income statement to match the timing of the hedged interest expense.

When hedge accounting is discontinued, any remaining cumulative hedge accounting balances continue to be released to the income statement to match the impact of outstanding hedged items. Any remaining amounts deferred in the cost of hedging reserve are released immediately to the income statement as finance costs.

The Group early-adopted Phase I of IFRS Interest Rate Benchmark Reform amendments related to hedge accounting with effect from 1 April 2019, and Phase II with effect from 1 April 2020. The amendments impact our fair value hedging relationships where derivative cash flows will have been transitioned from paying LIBOR to paying an alternative reference rate. The hedged risk must be re-documented to reflect this, and allow existing hedge designations to continue unchanged during the period of uncertainty relating to the timing and method of benchmark migrations. This process completed for sterling LIBOR contracts in the prior year but remains in progress for US dollar contracts as at 31 March 2023.

The amendments will be applied until the earliest point in time of the Group's contracts that reference LIBOR being amended, the hedging relationship being formally discontinued or formal market conventions ending uncertainty being published and widely adopted. If amended cash flows do not cause a hedging relationship to be discontinued, then the amendments will cease to be applied only when that relationship is discontinued under IFRS 9.

The IFRS amendments impact fair value and cash flow hedges of interest rate risk and related hedging instruments, and certain net investment hedges that use cross-currency interest rate swaps to pay a foreign currency floating rate and receive a functional currency floating rate. The notional values of hedging instruments, for each type of hedging relationship impacted, are shown in the hedge accounting tables in note 32(e). These amounts also correspond to the exposures designated as hedged.

32. Financial risk management continued

(e) Hedge accounting

In accordance with the requirements of IFRS 7, certain additional information about hedge accounting is disaggregated by risk type and hedge designation type in the tables below:

Year ended 31 March 2023	Fair value hedges of foreign currency and interest rate risk £m	Cash flow hedges of foreign currency and interest rate risk £m	Cash flow hedges of foreign currency risk £m	Net investment hedges £m
Consolidated statement of comprehensive income				
Net gains/(losses) in respect of:				
Cash flow hedges	–	136	10	–
Cost of hedging	4	4	–	(24)
Net investment hedges	–	–	–	(198)
Transferred to profit or loss in respect of:				
Cash flow hedges	–	(136)	–	–
Cost of hedging	–	–	–	1
Reclassification of foreign currency translation reserve[1]	–	–	–	373
Consolidated statement of changes in equity				
Other equity reserves – cost of hedging balances	(11)	(12)	–	(27)
Consolidated statement of financial position				
Derivatives – carrying value of hedging instruments[2]				
Assets – current	–	–	6	52
Assets – non-current	25	166	1	–
Liabilities – current	(43)	(39)	(6)	–
Liabilities – non-current	(559)	(248)	(1)	(15)
Profiles of the significant timing, price and rate information of hedging instruments				
Maturity range	Aug 2023 – Sep 2044	Jul 2024 – Nov 2040	Apr 2023 – May 2029	Jun 2023 – Sep 2027
Spot foreign exchange range:				
GBP:USD	n/a	1.30 – 1.66	1.20 – 1.36	1.18 – 1.22
GBP:EUR	1.11 – 1.20	1.08 – 1.24	1.10 – 1.20	1.12 – 1.13
EUR:USD	1.13 – 1.17	1.13 – 1.15	n/a	n/a
Interest rate range:				
GBP	SONIA +84bps/+374bps	0.976% – 7.410%	n/a	n/a
USD	LIBOR +68bps/ SOFR +126bps	2.095% – 3.864%	n/a	n/a

1. The reclassification of the net investment hedge on the disposals of NECO and Millennium Pipeline Company LLC has been included within Other operating income.
2. The use of derivatives may entail a derivative transaction qualifying for more than one hedge type designation under IFRS 9. Therefore, the derivative amounts in the table above are grossed up by hedge type, whereas they are presented net at an instrument level in the statement of financial position.

32. Financial risk management continued

(e) Hedge accounting continued

Year ended 31 March 2022	Fair value hedges of foreign currency and interest rate risk £m	Cash flow hedges of foreign currency and interest rate risk £m	Cash flow hedges of foreign currency risk £m	Net investment hedges £m
Consolidated statement of comprehensive income				
Net gains/(losses) in respect of:				
Cash flow hedges	—	(103)	(1)	—
Cost of hedging	(7)	16	—	(7)
Net investment hedges	—	—	—	(125)
Transferred to profit or loss in respect of:				
Cash flow hedges	—	43	—	—
Cost of hedging	1	—	—	(2)
Consolidated statement of changes in equity				
Other equity reserves – cost of hedging balances	(15)	(16)	—	(3)
Consolidated statement of financial position				
Derivatives – carrying value of hedging instruments[1]				
Assets – current	—	—	1	10
Assets – non-current	49	67	1	82
Liabilities – current	(21)	(22)	(37)	(16)
Liabilities – non-current	(310)	(303)	(8)	—
Profiles of the significant timing, price and rate information of hedging instruments				
Maturity range	Jul 2022 – Sep 2044	Jun 2022 – Nov 2040	Apr 2022 – Feb 2027	Sep 2022 – Sep 2027
Spot foreign exchange range:				
GBP:USD	n/a	1.30 – 1.66	1.34 – 1.41	1.22 – 1.34
GBP:EUR	1.11 – 1.24	1.08 – 1.24	1.04 – 1.19	1.18
EUR:USD	1.13 – 1.17	1.13 – 1.15	n/a	n/a
Interest rate range:				
GBP	SONIA +84bps/+374bps	0.976% – 7.410%	n/a	n/a
USD	LIBOR –68bps/+115bps	2.095% – 3.864%	n/a	n/a

1. The use of derivatives may entail a derivative transaction qualifying for more than one hedge type designation under IFRS 9. Therefore, the derivative amounts in the table above are grossed up by hedge type, whereas they are presented net at an instrument level in the statement of financial position.

32. Financial risk management continued

(e) Hedge accounting continued

The following tables show the effects of hedge accounting on financial position and year-to-date performance for each type of hedge. These tables also present notional values of hedging instruments (and equal hedged exposures) impacted by IFRS 9 Interest Rate Benchmark Reform amendments.

(i) Fair value hedges of foreign currency and interest rate risk on recognised borrowings:

As at 31 March 2023		Balance of fair value hedge adjustments in borrowings		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Foreign currency and interest rate risk on borrowings[1,2]	(4,779)	789	(43)	398	(351)	47

1. The carrying value of the hedged borrowings is £4,042 million, of which £511 million is current and £3,531 million is non-current.
2. Included within the hedging instrument notional balance is £859 million impacted by Interest Rate Benchmark Reform amendments which are still to be transitioned.

As at 31 March 2022		Balance of fair value hedge adjustments in borrowings		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Foreign currency and interest rate risk on borrowings[1,2]	(3,362)	437	(55)	340	(301)	39

1. The carrying value of the hedged borrowings was £2,966 million, of which £nil was current and £2,966 million was non-current.
2. Included within the hedging instrument notional balance was £2,556 million impacted by Interest Rate Benchmark Reform amendments with £806 million still to be transitioned.

(ii) Cash flow hedges of foreign currency and interest rate risk:

As at 31 March 2023		Balance in cash flow hedge reserve		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Foreign currency and interest rate risk on borrowings	(9,357)	(73)	—	149	(154)	(5)
Foreign currency risk on forecast cash flows	(537)	(3)	—	(35)	35	—

As at 31 March 2022		Balance in cash flow hedge reserve		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Foreign currency and interest rate risk on borrowings[1]	(6,287)	(48)	—	74	(74)	—
Foreign currency risk on forecast cash flows	(835)	(40)	1	18	(18)	—

1. Included within the hedging instrument notional balance was £100 million impacted by Interest Rate Benchmark Reform amendments.

(iii) Net investment hedges of foreign currency risk:

As at 31 March 2023		Balance in translation reserve		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Currency risk on foreign operations	(3,095)	(129)	(2,457)	198	(198)	—

As at 31 March 2022		Balance in translation reserve		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Currency risk on foreign operations[1]	(3,489)	(125)	(2,643)	125	(125)	—

1. Included within the hedging instrument notional balance was £nil impacted by Interest Rate Benchmark Reform amendments.

32. Financial risk management continued

(f) Commodity price risk

We purchase electricity and gas to supply our customers in the US and to meet our own energy needs. Substantially all our costs of purchasing electricity and gas for supply to customers are recoverable at an amount equal to cost. The timing of recovery of these costs can vary between financial periods leading to an under- or over-recovery within any particular year that can lead to large fluctuations in the income statement. We follow approved policies to manage price and supply risks for our commodity activities.

Our energy procurement risk management policy and delegations of authority govern our US commodity trading activities for energy transactions. The purpose of this policy is to ensure we transact within pre-defined risk parameters and only in the physical and financial markets where we or our customers have a physical market requirement. In addition, state regulators require National Grid to manage commodity risk and cost volatility prudently through diversified pricing strategies. In some jurisdictions we are required to file a plan outlining our strategy to be approved by regulators. In certain cases, we might receive guidance with regard to specific hedging limits.

Energy purchase contracts for the forward purchase of electricity or gas that are used to satisfy physical delivery requirements to customers, or for energy that the Group uses itself, meet the expected purchase or usage requirements of IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. Disclosure of commitments under such contracts is made in note 30.

US states have introduced a variety of legislative requirements with the aim of increasing the proportion of our electricity that is derived from renewable or other forms of clean energy. Annual compliance filings regarding the level of Renewable Energy Certificates (and other similar environmental certificates) are required by the relevant department of utilities. In response to the legislative requirements, National Grid has entered into long-term, typically fixed-price, energy supply contracts to purchase both renewable energy and environmental certificates. We are entitled to recover all costs incurred under these contracts through customer billing.

Under IFRS, where these supply contracts are not accounted for as leases, they are considered to comprise two components, being a forward purchase of power at spot prices and a forward purchase of environmental certificates at a variable price (being the contract price less the spot power price). With respect to our current contracts, neither of these components meets the requirement to be accounted for as a derivative. The environmental certificates are currently required for compliance purposes, and at present there are no liquid markets for these attributes. Furthermore, this component meets the expected purchase or usage exemption of IFRS 9. We expect to enter into an increasing number of these contracts in order to meet our compliance requirements in the short to medium term. In future, if and when liquid markets develop, and to the extent that we are in receipt of environmental certificates in excess of our required levels, this exemption may cease to apply and we may be required to account for forward purchase commitments for environmental certificates as derivatives at fair value through profit and loss.

32. Financial risk management continued

(g) Fair value analysis

Included in the statement of financial position are financial instruments which are measured at fair value. These fair values can be categorised into hierarchy levels that are representative of the inputs used in measuring the fair value. The best evidence of fair value is a quoted price in an actively traded market. In the event that the market for a financial instrument is not active, a valuation technique is used.

	2023				2022			
	Level 1 £m	**Level 2 £m**	**Level 3 £m**	**Total £m**	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Assets								
Investments held at FVTPL	**1,764**	**—**	**452**	**2,216**	2,292	—	417	2,709
Investments held at FVOCI[1]	**—**	**407**	**—**	**407**	—	413	—	413
Financing derivatives	**—**	**341**	**22**	**363**	—	298	—	298
Commodity contract derivatives	**—**	**62**	**4**	**66**	—	238	51	289
	1,764	**810**	**478**	**3,052**	2,292	949	468	3,709
Liabilities								
Financing derivatives	**—**	**(997)**	**(122)**	**(1,119)**	—	(804)	(187)	(991)
Commodity contract derivatives	**—**	**(134)**	**(40)**	**(174)**	—	(15)	(7)	(22)
Contingent consideration[2]	**—**	**—**	**(19)**	**(19)**	—	—	(41)	(41)
	—	**(1,131)**	**(181)**	**(1,312)**	—	(819)	(235)	(1,054)
	1,764	**(321)**	**297**	**1,740**	2,292	130	233	2,655

1. Investments held includes instruments which meet the criteria of IFRS 9 or IAS 19.
2. Contingent consideration relates to the acquisition of National Grid Renewables.

Level 1:	Financial instruments with quoted prices for identical instruments in active markets.
Level 2:	Financial instruments with quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets, and financial instruments valued using models where all significant inputs are based directly or indirectly on observable market data.
Level 3:	Financial instruments valued using valuation techniques where one or more significant inputs are based on unobservable market data.

Our Level 1 financial investments and liabilities held at fair value are valued using quoted prices from liquid markets and primarily comprise investments in short-term money market funds.

Our Level 2 financial investments held at fair value primarily include bonds with a tenor greater than one year and are valued using quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets. Alternatively, they are valued using models where all significant inputs are based directly or indirectly on observable market data.

Our Level 2 financing derivatives include cross-currency, interest rate and foreign exchange derivatives. We value these by discounting all future cash flows by externally sourced market yield curves at the reporting date, taking into account the credit quality of both parties. These derivatives can be priced using liquidly traded interest rate curves and foreign exchange rates, and therefore we classify our vanilla trades as Level 2 under the IFRS 13 framework.

Our Level 2 commodity contract derivatives include over-the-counter gas and power swaps as well as forward physical gas deals. We value our contracts based on market data obtained from the New York Mercantile Exchange (NYMEX) and the Intercontinental Exchange (ICE) where monthly prices are available. We discount based on externally sourced market yield curves at the reporting date, taking into account the credit quality of both parties and liquidity in the market. Our commodity contracts can be priced using liquidly traded swaps. Therefore, we classify our vanilla trades as Level 2 under the IFRS 13 framework.

Our Level 3 financing derivatives include inflation-linked swaps, where the market is illiquid. In valuing these instruments, we use in-house valuation models and obtain external valuations to support each reported fair value.

Our Level 3 commodity contract derivatives primarily consist of our forward purchases of electricity and gas that we value using proprietary models. Derivatives are classified as Level 3 where significant inputs into the valuation technique are neither directly nor indirectly observable (including our own data, which are adjusted, if necessary, to reflect the assumptions market participants would use in the circumstances).

Our Level 3 investments include equity investments accounted for at fair value through profit and loss. These equity holdings are part of our corporate venture capital portfolio held by National Grid Partners and comprise a series of relatively small, early-stage non-controlling minority interest unquoted investments where prices or valuation inputs are unobservable. Fourteen equity investments (out of thirty-one) are fair valued based on the latest transaction price (a price within the last 12 months), either being the price we paid for the investments, marked to a latest round of funding and adjusted for our preferential rights or based on an internal model. In addition, we have seventeen investments without a transaction in the last 12 months that underwent an internal valuation process.

The internal valuation process utilises a range of valuation techniques including the Black-Scholes Murton Option Pricing Model (OPM Backsolve) where the latest round of funding is within the last 12 months. Between 12 and 18 months a blend between OPM Backsolve and other techniques are utilised such as proxy group revenue multiples, discounted cash flow, comparable company analysis and probability weighted expected return approach in order to triangulate a valuation. After 18 months the valuation is based on these alternative methods as the last fundraising price is no longer a reliable basis for valuation.

Our Level 3 investments also include our investment in Sunrun Neptune 2016 LLC, which is accounted for at fair value through profit and loss. The investment is fair valued by discounting expected cash flows using a weighted average cost of capital specific to Sunrun Neptune 2016 LLC.

32. Financial risk management continued

(g) Fair value analysis continued

The changes in value of our Level 3 financial instruments are as follows:

	Financing derivatives		Commodity contract derivatives		Other[3]		Total	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
At 1 April	**(187)**	(183)	**44**	(12)	**376**	183	**233**	(12)
Net gains/(losses) for the year[1,2]	**87**	(4)	**(18)**	56	**(2)**	102	**67**	154
Purchases	**—**	—	**(56)**	17	**59**	93	**3**	110
Settlements	**—**	—	**(6)**	(17)	**—**	(2)	**(6)**	(19)
At 31 March	**(100)**	(187)	**(36)**	44	**433**	376	**297**	233

1. Gain of £87 million (2022: £4 million loss) is attributable to derivative financial instruments held at the end of the reporting period and has been recognised in finance costs in the consolidated income statement.
2. Loss of £41 million (2022: £27 million gain) is attributable to commodity contract derivative financial instruments held at the end of the reporting period and have been recognised in other operating costs in the consolidated income statement.
3. Other comprises our investments in Sunrun Neptune 2016 LLC and the investments made by National Grid Partners, which are accounted for at fair value through profit and loss as well as the contingent consideration arising from the acquisition of National Grid Renewables. Net gains and losses are recognised within finance income and costs in the consolidated income statement.

The impacts on a post-tax basis of reasonably possible changes in significant Level 3 assumptions are as follows:

	Financing derivatives		Commodity contract derivatives		Other[3]	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
10% increase in commodity prices[1]	**—**	—	**5**	9	**—**	—
10% decrease in commodity prices[1]	**—**	—	**(6)**	(8)	**—**	—
+10% market area price change	**—**	—	**—**	—	**—**	—
-10% market area price change	**—**	—	**—**	—	**—**	—
+20 basis points change in Limited Price Inflation (LPI) market curve[2]	**(53)**	(84)	**—**	—	**—**	—
-20 basis points change in LPI market curve[2]	**51**	82	**—**	—	**—**	—
+20 basis point increase between Retail Price Index & Consumer Price Index	**43**	—	**—**	—	**—**	—
-20 basis point decrease between Retail Price Index & Consumer Price Index	**(38)**	—	**—**	—	**—**	—
+50 basis points change in discount rate	**—**	—	**—**	—	**(9)**	(10)
-50 basis points change in discount rate	**—**	—	**—**	—	**10**	10
+10% change in venture capital price	**—**	—	**—**	—	**28**	—
-10% change in venture capital price	**—**	—	**—**	—	**(28)**	—

1. Level 3 commodity price sensitivity is included within the sensitivity analysis disclosed in note 35.
2. A reasonably possible change in assumption of other Level 3 derivative financial instruments is unlikely to result in a material change in fair values.
3. The investments acquired in the period were on market terms, and sensitivity is considered insignificant at 31 March 2023.

The impacts disclosed above were considered on a contract-by-contract basis with the most significant unobservable inputs identified.

32. Financial risk management continued

(h) Capital risk management

The capital structure of the Group consists of shareholders' equity, as disclosed in the consolidated statement of changes in equity, and net debt (note 29). National Grid's objectives when managing capital are: to safeguard our ability to continue as a going concern; to remain within regulatory constraints of our regulated operating companies; and to maintain an efficient mix of debt and equity funding, thus achieving an optimal capital structure and cost of capital. We regularly review and manage the capital structure as appropriate in order to achieve these objectives.

Maintaining appropriate credit ratings for our operating and holding companies is an important aspect of our capital risk management strategy and balance sheet efficiency. We monitor our balance sheet efficiency using several metrics including retained cash flow/net debt (RCF/debt), regulatory gearing and interest cover. For the year ended 31 March 2023, these metrics for the Group were 9.3% (2022: 8.9%), 71% (2022: 81%) and 3.8x (2022: 4.7x), respectively – see pages 54 and 245. We believe these are consistent with the current credit ratings for National Grid plc in respect of the main companies of the Group, based on guidance from the rating agencies. Regulatory gearing at 31 March 2022 was higher than our long-run projections due to the fact that we were only part way through the transactions making up our strategic pivot.

We monitor the RAV gearing within National Grid Electricity Transmission plc (NGET) and National Grid Electricity Distribution plc (NGED). This is calculated as net debt expressed as a percentage of RAV, and indicates the level of debt employed to fund our UK regulated businesses. It is compared with the level of RAV gearing indicated by Ofgem as being appropriate for these businesses, at around 55% to 65%. We also monitor net debt as a percentage of rate base for our US operating companies, comparing this with the allowed rate base gearing inherent within each of our agreed rate plans, typically around 50%.

As part of the Group's debt financing arrangements, we are subject to a number of financial covenants associated with existing borrowings and facility arrangements:

- the requirement to maintain subsidiary indebtedness relating to non-US and US subsidiaries (excluding National Grid North America Inc.) limiting the total indebtedness in absolute terms to £35 billion for non-US subsidiaries and $35 billion for US subsidiaries. As at 31 March 2023, headroom on these covenants exceeds £10 billion;
- The Articles of Association of National Grid plc limit Group total borrowings less cash and short-term investments in absolute terms to £55 billion. As at 31 March 2023 headroom on the limit exceeds £10 billion;
- interest cover ratios relating to the NGED companies within the Group requiring a consolidated EBITDA to interest payable of not less than 3:1. These covenants range in outturn from 3.5:1 to 5.2:1 at the reporting date; and
- net debt to RAV gearing covenants limiting gearing to 85% of RAV for each NGED operating company. As at 31 March 2023, actual gearing of less than 60% is reported for all impacted companies.

We consider the risk of breaching these covenants as remote given the level of headroom present.

The majority of our regulated operating companies in the US and the UK are subject to certain restrictions on the payment of dividends by administrative order, contract and/or licence. The types of restrictions that a company may have that would prevent a dividend being declared or paid unless they are met include:

- the requirement to notify by certification to regulators and certain lenders;
- dividends must be approved in advance by the relevant US state regulatory commission;
- the subsidiary must have one or two recognised rating agency credit ratings of at least investment grade depending on contractual requirements;
- dividends must be limited to cumulative retained earnings, including pre-acquisition retained earnings and in line with relevant company legislation;
- the securities of National Grid plc must maintain an investment grade credit rating, and if that rating is the lowest investment grade bond rating it cannot have a negative watch/review for downgrade notice by a credit rating agency;
- the subsidiary must not carry out any activities other than those permitted by the licences;
- the subsidiary must not create any cross-default obligations or give or receive any intra-group cross-subsidies;
- the percentage of equity compared with total capital of the subsidiary must remain above certain levels; and
- in the case of NGED, the percentage of debt compared with total RAV of the subsidiary must remain below 85%.

These restrictions are subject to alteration in the US as and when a new rate case or rate plan is agreed with the relevant regulatory bodies for each operating company and, in the UK, through the normal licence review process.

As most of our business is regulated, at 31 March 2023 the majority of our net assets are subject to some of the restrictions noted above. These restrictions are not considered to be significantly onerous, nor do we currently expect they will prevent the planned payment of dividends in future in line with our dividend policy.

All the above requirements are monitored on a regular basis in order to ensure compliance. The Group has complied with all externally imposed capital requirements to which it is subject.

33. Borrowing facilities

To support our liquidity requirements and provide backup to commercial paper and other borrowings, we agree committed credit facilities with financial institutions over and above the value of borrowings that may be required. These committed credit facilities are undrawn.

At 31 March 2023, we had bilateral committed credit facilities of £5,616 million (2022: £5,978 million). In addition, we had committed credit facilities from syndicates of banks of £887 million at 31 March 2023 (2022: £936 million). An analysis of the maturity of these undrawn committed facilities is shown below:

	2023 £m	2022 £m
Undrawn committed borrowing facilities expiring:		
Less than 1 year	42	–
In 1 to 2 years	4,361	936
In 2 to 3 years	2,100	4,373
In 3 to 4 years	–	1,605
In 4 to 5 years	–	–
More than 5 years	–	–
	6,503	6,914

Of the unused facilities at 31 March 2023, £6,461 million (2022: £6,823 million) is available for liquidity purposes, while £42 million (2022: £91 million) is available as backup to specific US borrowings.

Subsequent to 31 March 2023, the following undrawn facilities were renegotiated or cancelled:

- £42 million of the undrawn syndicated facilities due to mature in less than one year were renegotiated on 24 April 2023 with no uplift in the amount and a new expiry date of 31 May 2028;
- £750 million of the undrawn bilateral facilities due to mature in one to two years were renegotiated on 5 May 2023 with no uplift in the amount and a new expiry date of 31 May 2026;
- £3,526 million of the undrawn bilateral facilities due to mature in one to two years and £2,060 million of the undrawn bilateral facilities due to mature in two to three years were renegotiated on 3 April 2023, into £5,377 million bilateral facilities with an expiry date of 3 April 2026 and £1,810 million syndicated facility with an expiry date of 3 April 2028; and
- £85 million of the undrawn bilateral facilities due to mature in one to two years and £40 million of the undrawn bilateral facilities due to mature in two to three years were cancelled on 10 May 2023.

The comparative balances include a facility of £350 million related to National Grid Gas plc, a company which was disposed of in the current year.

In addition, we have the following facilities which are not included in the table above:

- for the separately regulated business of National Grid Electricity System Operator Limited, the Group has a facility of £550 million (2022: £550 million). This facility is not available as Group general liquidity support;
- the Group continues to have access to Export Credit Agreements (ECAs) funding specific projects totalling £1,530 million (2022: £1,396 million), of which £460 million (2022: £489 million) is undrawn; and
- as of 31 March 2023 the Group had a loan facility of £nil (2022: £8,250 million) to finance the consideration to acquire NGED (see note 37), of which £nil (2022: £8,179 million) was drawn down as at 31 March 2023. In the current year, the Group used the proceeds generated from the sales of NECO and the UK Gas Transmission business to fully repay the bridge facility.

34. Subsidiary undertakings, joint ventures and associates

While we present consolidated results in these financial statements as if we were one company, our legal structure is such that there are a number of different operating and holding companies that contribute to the overall result. This structure has evolved through acquisitions as well as regulatory requirements to have certain activities within separate legal entities.

Subsidiary undertakings

A list of the Group's subsidiaries as at 31 March 2023 is given below. The entire share capital of subsidiaries is held within the Group except where the Group's ownership percentages are shown. These percentages give the Group's ultimate interest and therefore allow for the situation where subsidiaries are owned by partly owned intermediate subsidiaries. Where subsidiaries have different classes of shares, this is largely for historical reasons, and the effective percentage holdings given represent both the Group's voting rights and equity holding. Shares in National Grid (US) Holdings Limited, National Grid (US) Investments 2 Limited*, National Grid Hong Kong Limited*, National Grid Luxembourg SARL and NGG Finance plc are held directly by National Grid plc. All other holdings in subsidiaries are owned by other subsidiaries within the Group. All subsidiaries are consolidated in the Group's financial statements.

Principal Group companies are identified in **bold**. These companies are incorporated and principally operate in the countries under which they are shown. All entities incorporated in the US are taxed in the US on their worldwide income other than where indicated in the footnotes below. Other entities are tax resident in their jurisdiction of incorporation other than where indicated in the footnotes below.

Incorporated in England and Wales

Registered office: 1–3 Strand, London, WC2N 5EH, UK (unless stated otherwise in footnotes).

Birch Sites Limited
Carbon Sentinel Limited
Central Networks Trustees Limited[1]
Droylsden Metering Services Limited
Gridcom Limited
Hyder Profit Sharing Trustees Limited[1]
Icelink Interconnector Limited
Kelston Properties 2 Limited[1]
Lattice Group Employee Benefit Trust Limited
Lattice Group Limited
Lattice Group Trustees Limited
Natgrid Limited[2*]
NatGrid One Limited[2*]
NatgridTW1 Limited
National Grid (US) Holdings Limited[3]
National Grid (US) Investments 2 Limited[2*]
National Grid (US) Investments 4 Limited[3]
National Grid (US) Partner 1 Limited[3]
National Grid Carbon Limited
National Grid Commercial Holdings Limited
National Grid Continental Limited
National Grid Distributed Energy Limited
National Grid Electricity Distribution (East Midlands) plc[1]
National Grid Electricity Distribution (South Wales) plc[1]
National Grid Electricity Distribution (South West) plc[1]
National Grid Electricity Distribution (West Midlands) plc[1]
National Grid Electricity Distribution Generation Limited[1]
National Grid Electricity Distribution Holdings Limited[1]
National Grid Electricity Distribution Investment Holdings Limited[1]
National Grid Electricity Distribution Investments Limited[1]
National Grid Electricity Distribution Midlands Limited[1]
National Grid Electricity Distribution Network Holdings Limited[1]
National Grid Electricity Distribution plc[1]
National Grid Electricity Distribution Property Investments Limited[1]
National Grid Electricity Group Trustee Limited
National Grid Electricity System Operator Limited
National Grid Electricity Transmission plc
National Grid Energy Metering Limited
National Grid Grain LNG Limited
National Grid Helicopters Limited[1]
National Grid Holdings Limited[3]
National Grid Holdings One plc
National Grid Hydrogen Limited
National Grid IFA 2 Limited
National Grid Interconnector Holdings Limited
National Grid Interconnectors Limited
National Grid International Limited[3]
National Grid Lion Link Limited
National Grid Nautilus Limited
National Grid North Sea Link Limited
National Grid Offshore Limited
National Grid Partners Limited
National Grid Plus Limited
National Grid Property Holdings Limited
National Grid Smart Limited
National Grid Telecoms Limited[1]
National Grid Thirty Six Limited[2*]
National Grid Twelve Limited
National Grid Twenty Eight Limited
National Grid Twenty Seven Limited
National Grid Twenty Three Limited[2*]
National Grid UK Limited
National Grid UK Pension Services Limited
National Grid Ventures Limited
National Grid Viking Link Limited
National Grid William Limited
NG Nominees Limited
NGC Employee Shares Trustee Limited
NGG Finance plc
Ngrid Intellectual Property Limited
Port Greenwich Limited
Sheet Road Management Company Limited (51%)[4]
South Wales Electricity Share Scheme Trustees Limited[1]
Supergrid Electricity Limited[2*]
Supergrid Energy Transmission Limited[2*]
Supergrid Limited[2*]
Thamesport Interchange Limited
The National Grid Group Quest Trustee Company Limited
The National Grid YouPlan Trustee Limited[2*]
Transco Limited
Warwick Technology Park Management Company (No 2) Limited (60.56%)[5]
Western Power Pension Trustee Limited[1]
WPD Share Scheme Trustees Limited[1]
WPD WEM Holdings Limited[1]
WPD WEM Limited[1]
WW Share Scheme Trustees Limited[1]

1. Registered office: Avonbank, Feeder Road, Bristol, Avon, BS2 0TB.
2. Registered office: C/o Interpath Limited, 10 Fleet Place, London, EC4M 7RB.
3. Companies where National Grid plc has issued guarantees over the liabilities of the companies as at 31 March 2023 and for which the companies are taking the exemption from the requirements of an audit for their individual financial statements as permitted by section 479A of the Companies Act.
4. Registered office: Netley Old Hall Farm, Dorrington, Shrewsbury, United Kingdom, SY5 7JY.
5. Registered office: Shire Hall, PO Box 9, Warwick, CV34 4RL.

* In liquidation.

34. Subsidiary undertakings, joint ventures and associates continued

Subsidiary undertakings continued

Incorporated in the US

Registered office: National Registered Agents, Inc., 1209 Orange Street, Wilmington, DE 19801, USA (unless stated otherwise in footnotes).

Apple River Solar, LLC
Armenia Solar, LLC
Ashland Solar, LLC
Athens Solar, LLC
Autauga Solar, LLC
Banner Solar, LLC
Bazile Creek Wind Farm, LLC
Bee Hollow Solar, LLC
Bell Plaine Solar, LLC
Benevolent Solar, LLC
Blaze Solar, LLC
Blevins Solar, LLC
Blue Ridge Wind, LLC
Blue Spring Solar, LLC
Blues Solar, LLC
Bluewater Solar, LLC
Boone Solar, LLC
Boston Gas Company[1]
Bridges Solar, LLC
Brock Solar, LLC
Broken Bridge Corp.[2]
Brook Trout Solar, LLC
Burley Solar, LLC
Burlington Solar, LLC
Burr Ridge Wind, LLC
Cage Ranch Solar II, LLC
Cage Ranch Solar III, LLC
Cage Ranch Solar, LLC
Caldwell Solar II, LLC
Caldwell Solar, LLC
Canby Solar, LLC
Cass Wind Farm, LLC
Cattle Ridge Wind Farm 2, LLC
Cedar Grove Solar, LLC
Centennial Solar, LLC
Charter Oak Solar, LLC
Clay Boswell Solar, LLC
Clear Creek Solar, LLC
Clermont Solar, LLC
Clinton County Solar, LLC
Coles Solar, LLC
Compass Prairie Wind, LLC
Conestoga Wind, LLC
Creekview Solar, LLC
Crocker Wind Farm 2, LLC
Dakota Hills Wind Farm, LLC
Deatsville Solar, LLC
Deer Trail Solar, LLC
Dodson Creek Solar, LLC
Donnellson Solar, LLC
Elburn Solar, LLC
Eldena Solar, LLC
Elk Creek Solar 2, LLC
Elk Creek Solar, LLC
EUA Energy Investment Corporation[1]
Exie Solar, LLC
Falls City Solar, LLC
Fillmore County Solar Project, LLC
Firstview Wind Farm, LLC
Fort Solar, LLC
Front Range Wind Farm, LLC
Galaxy Solar, LLC
Golden Solar, LLC
Goldendale Solar, LLC
Goldenrod Wind Farm, LLC
Goldfinch Solar, LLC
Grand Junction Solar, LLC
Granite State Power Link LLC[3]
Grant Solar 2, LLC
Grant Solar, LLC
Grayson Solar, LLC
Greenbrier Creek Solar, LLC
Greensky Solar, LLC
Greenwood Solar, LLC
Grid NY LLC[4]
Grindstone Wind Farm, LLC[5]
Hale County Solar, LLC
Hansford Energy Storage, LLC
Harmony Solar ND 2, LLC
Harmony Solar ND, LLC
Harrington Solar, LLC
Hartley Solar, LLC
Hearth Solar, LLC
Hill River Solar, LLC
Honeybee Solar, LLC
Hoosier Solar, LLC
Hoskins Solar, LLC
Illumination Solar, LLC
Innovation Solar, LLC
Itasca Energy Development, LLC[6]
Itasca Energy Services, LLC
Jack Rabbit Wind, LLC
Jackson County Solar, LLC
KeySpan CI Midstream Limited[3]
KeySpan Energy Corporation[4]
KeySpan Energy Services Inc.[3]
KeySpan Gas East Corporation[4]
KeySpan International Corporation[3]
KeySpan MHK, Inc.[3]
KeySpan Midstream, Inc.[3]
KeySpan Plumbing Solutions, Inc.[4]
Kit Fox Storage, LLC
Knox Solar, LLC
Kota Storage, LLC
KSI Contracting, LLC[3]
KSI Electrical, LLC[3]
KSI Mechanical, LLC[3]
Lake Charlotte Solar, LLC
Lakeside Solar, LLC
Land Management & Development, Inc.[4]
Landwest, Inc.[4]
Lansing Solar, LLC
Las Moras Storage, LLC
Leola Wind Farm, LLC
Liberty Solar, LLC
Livingston County Solar, LLC
Long Mount Storage, LLC
Lordsburg Solar, LLC
Louisa Solar, LLC
Louise Solar Project, LLC
Lowlands Solar, LLC
Lydia Solar, LLC
Marion County Solar, LLC
Massachusetts Electric Company[1]
Maverick Wind Farm, LLC
Meadowlands Solar, LLC
Metrowest Realty LLC[3]
Miller Creek Solar, LLC
Millers Ferry Solar, LLC
Morgan County Solar, LLC
Morning Glory Solar, LLC[6]
Muddy Creek Solar, LLC
Mustang Ridge Wind Farm, LLC
Mystic Steamship Corporation[7]
Nantucket Electric Company[1]
National Grid Development Holdings Corp.[3]
National Grid Electric Services LLC[4]
National Grid Energy Management LLC[3]
National Grid Energy Services LLC[3]
National Grid Energy Trading Services LLC[4]
National Grid Engineering & Survey Inc.[4]
National Grid Generation LLC[4]
National Grid Generation Ventures LLC[4]
National Grid Glenwood Energy Center, LLC[3]
National Grid IGTS Corp.[4]
National Grid Insurance USA Ltd[8]
National Grid Islander East Pipeline LLC[3]
National Grid LNG GP LLC[3]
National Grid LNG LLC[3]
National Grid LNG LP LLC[3]
National Grid Millennium LLC[3]
National Grid NE Holdings 2 LLC[1]
National Grid North America Inc.[3]
National Grid Partners Inc.[4]
National Grid Partners LLC[3]
National Grid Port Jefferson Energy Center LLC[3]
National Grid Renewables Development, LLC
National Grid Renewables E Wind, LLC[6]
National Grid Renewables Operations, LLC[3]
National Grid Renewables Projects, LLC[6]
National Grid Renewables Stutsman, LLC
National Grid Renewables, LLC[3]

34. Subsidiary undertakings, joint ventures and associates continued

Subsidiary undertakings continued

National Grid Services Inc.[3]
National Grid US 6 LLC[3,†]
National Grid US LLC[3]
National Grid USA Service Company, Inc.[1]
National Grid USA[3]
NEES Energy, Inc.[1]
New England Electric Transmission Corporation[2]
New England Energy Incorporated[1]
New England Hydro Finance Company, Inc. (53.704%)[1]
New England Hydro-Transmission Corporation (53.704%)[2]
New England Hydro-Transmission Electric Company, Inc. (53.704%)[1]
New England Power Company[1]
Newport America Corporation[9]
Newton Solar, LLC
NG Renewables Energy Marketing, LLC[3]
NG Renewables Energy Services, LLC
NGNE LLC[3]
NGV Emerald Energy Venture Holdings, LLC[3]
NGV OSW Holdings, LLC[3]
NGV US Distributed Energy Inc.[3]
NGV US Transmission Inc.[3]
NGV US, LLC[3]
Niagara Mohawk Energy, Inc.[3]
Niagara Mohawk Holdings, Inc.[4]
Niagara Mohawk Power Corporation[4]
Niobrara Wind, LLC
NM Properties, Inc.[4]
Noble Solar, LLC[10]
Nordic VOS, LLC
North East Transmission Co., Inc.[3]
North Fork Wind, LLC
Northeast Renewable Link LLC[3]
Opinac North America, Inc.[3]
Pennington Solar, LLC
Peony Solar, LLC
Philadelphia Coke Co., Inc.[3]
Pierce County Solar, LLC
Pike County Solar, LLC
Pipestone Solar, LLC
Plum Creek Wind Farm 2, LLC
Plum Creek Wind Farm, LLC
Port of the Islands North, LLC[4]
Portage Solar, LLC
Prairie Oasis Solar, LLC
Prairie Rose Wind 2, LLC[6]
Prosperity Wind Farm 2, LLC
Prosperity Wind Farm, LLC
Red Rock Solar SD, LLC
Regal Solar 2, LLC
Regal Solar, LLC
River North Solar, LLC
Robertson Solar, LLC
Rock Ridge Wind Farm, LLC
Rolling Hills Solar, LLC
Royal Solar 2, LLC
Royal Solar, LLC
Royerton Solar, LLC
Saginaw Bay Solar, LLC
Saltillo Storage, LLC
Sandstone Creek Solar 2, LLC
Sandstone Creek Solar, LLC
Sapphire Sky Wind Farm, LLC
Sherco Solar 2, LLC[6]
Sherco Solar 3, LLC
Silver City Solar, LLC
Simpson Solar, LLC
Spotlight Solar, LLC
Spring Brook Solar, LLC
Spring River Solar, LLC
Stony Brook Wind, LLC
Stony Point Solar, LLC
Stove Creek Solar, LLC
Sturgis Solar, LLC
Summit Lake Solar, LLC
Sunbeam Solar, LLC
Sunrise Solar, LLC
Sycamore Creek Solar, LLC
Tejano Storage, LLC
Thacker Solar, LLC
The Brooklyn Union Gas Company[4]
Torchlight Solar, LLC[6]
Transgas Inc.[1]
Tri-City Solar, LLC
Uintah Solar, LLC
Unbridled Solar, LLC
Upper Hudson Development, Inc.[4]
Valley Solar, LLC
Vermont Green Line Devco, LLC (90%)[3]
Vibrant Solar, LLC
Violet Storage, LLC
Virgo Community Solar Gardens, LLC[6]
Virtue Solar, LLC
Vivid Solar, LLC
Wallowa Solar, LLC
Wayfinder Group, Inc.[1]
Wheatfield Solar, LLC
White Elm Wind Farm, LLC
Wildcat Ridge Wind Farm, LLC
Wildhorse Creek Solar, LLC
Willard Solar, LLC
Williams County Solar, LLC
Wiregrass Solar, LLC
Woodlands Solar, LLC
Worthington Solar, LLC
Yellowhammer Solar, LLC
Young County Solar, LLC

34. Subsidiary undertakings, joint ventures and associates continued

Subsidiary undertakings continued

Incorporated in Australia
Registered office: Level 7, 330 Collins Street, Melbourne, VIC 3000, Australia

National Grid Australia Pty Limited

Incorporated in Canada
Registered office: Stewart McKelvey LLP, c/o Charles Reagh, Queen's Marque, 600-1741 Lower Water Street, Halifax, Nova Scotia, B3J 0J2, Canada

KeySpan Energy Development Co.

Incorporated in Guernsey
Registered office: 1st & 2nd Floors Elizabeth House, Les Ruettes Brayes, St Peter Port, GY1 1EW, Guernsey, Channel Islands

NG Electricity Distribution Limited†

Registered office: PO Box 155, Mill Court, La Charroterie, St. Peter Port, GY1 4ET, Guernsey, Channel Islands

Aztec Insurance Limited

Incorporated in Hong Kong
Registered office: 5/F, Manulife Place, 348 Kwun Tong Road, Kowloon, Hong Kong

National Grid Hong Kong Limited*†

Incorporated in the Isle of Man
Registered office: Third Floor, St George's Court, Upper Church Street, Douglas, IM1 1EE, Isle of Man, UK

National Grid Insurance Company (Isle of Man) Limited
NGT Holding Company (Isle of Man) Limited*†

Incorporated in Luxembourg
Registered office: 412F, Route d'Esch, L-2086, Luxembourg, Grand Duchy of Luxembourg

National Grid Luxembourg SARL

1. Registered office: Corporation Service Company, 84 State Street, Boston MA 02109, USA.
2. Registered office: Corporation Service Company, 10 Ferry Street, Suite 313, Concord NH 03301, USA.
3. Registered office: Corporation Service Company, 251 Little Falls Drive, Wilmington DE 19808, USA.
4. Registered office: Corporation Service Company, 80 State Street, Albany NY 12207, USA.
5. Registered office: National Registered Agents, Inc., 30600 Telegraph Road, Suite 2345, Bingham Farms, MI 48025-5720, USA.
6. Registered office: National Grid Renewables Development, LLC, 8400 Normandale Lake Blvd. Suite 1200, Bloomington, MN 55437, USA.
7. Registered office: The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington DE 19801, USA.
8. Registered office: AON Insurance Managers USA, Inc., 165 Broadway, One Liberty Plaza, New York, NY, 10006, USA.
9. Registered office: Corporation Service Company, 222 Jefferson Boulevard, Suite 200, Warwick RI 02888, USA.
10. Registered office: National Registered Agents, Inc., 1999 Bryan Street, Dallas, Dallas County TX 75201, USA.

* In liquidation.

† Entity is tax resident in the United Kingdom.

34. Subsidiary undertakings, joint ventures and associates continued

Joint ventures

A list of the Group's joint ventures as at 31 March 2023 is given below. All joint ventures are included in the Group's financial statements using the equity method of accounting.

Incorporated in England and Wales

Registered office: 1–3 Strand, London, WC2N 5EH, UK (unless stated otherwise in footnotes).

BritNed Development Limited (50%)*
National Places LLP (50%)[1]
Nemo Link Limited (50%)
NGET/SPT Upgrades Limited (50%)†

Incorporated in the US

Registered office: Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808, USA (unless stated otherwise in footnotes).

Community Offshore Wind, LLC (previously Bight Wind Holdings LLC) (27.27%)[2]
Clean Energy Storage Systems LLC (50%)
Emerald Energy Venture LLC (51%)
Island Park Energy Center, LLC (50%)
Islander East Pipeline Company, LLC (50%)[2]
LI Energy Storage System, LLC (50%)
LI Solar Generation, LLC (50%)

Incorporated in France

Registered office: 1 Terrasse Bellini, Tour Initiale, TSA 41000 – 9291, Paris La Defense, CEDEX, France

IFA2 (50%)

Associates

A list of the Group's associates as at 31 March 2023 is given below. Unless otherwise stated, all associates are included in the Group's financial statements using the equity method of accounting.

Incorporated in England and Wales

Registered office: National Grid House, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

GasT TopCo Limited
Joint Radio Company Limited (25%)[3]**

Incorporated in the US

Registered office: Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808, USA (unless stated otherwise in footnotes).

Clean Line Energy Partners LLC (32%)[3]
Connecticut Yankee Atomic Power Company (19.5%)[4]
Direct Global Power Inc. (26%)[3]
Energy Impact Fund LP (9.41%)[5]
KHB Venture LLC (33.33%)[6]
Maine Yankee Atomic Power Company (24%)[7]
New York Transco LLC (28.3%)[8]
NYSEARCH RMLD, LLC (22.63%)
The Hive IV, LLC (28.2%)[3]
Yankee Atomic Electric Company (34.5%)[9]

Incorporated in Belgium

Registered office: Avenue de Cortenbergh 71, 1000 Brussels, Belgium

Coreso SA (15.84%)

Other investments

A list of the Group's other investments as at 31 March 2023 is given below.

Incorporated in England and Wales

Registered office: 1 More London Place, London SE1 2AF, UK

Energis plc (33.06%)‡

Registered office: Third Floor, Northumberland House, 303–306 High Holborn, London, WC1V 7JZ

Electralink Limited (27.04%)

1. Registered office: 80 Cheapside, London, EC2V 6EE, UK.
2. Registered office: The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington DE 19801, USA.
3. Registered office: Friars House, Manor House Drive, Coventry, CV1 2TE, UK.
4. Registered office: Carla Pizzella, 362 Injun Hollow Road, East Hampton CT 06424-3099, USA.
5. Registered office: Harvard Business Services, Inc., 16192 Coastal Highway, Lewes DE 19958, USA.
6. Registered office: c/o de maximis, inc., 135 Beaver Street, 4th Floor, Waltham MA 02452, USA.
7. Registered office: Joseph D Fay, 321 Old Ferry Road, Wiscasset ME 04578, USA.
8. Registered office: Corporation Service Company, 80 State Street, Albany NY 12207, USA.
9. Registered office: Karen Sucharzewski, 49 Yankee Road, Rowe MA 01367, USA.

* National Grid Interconnector Holdings Limited owns 284,500,000 €0.20 C Ordinary shares and one £1.00 Ordinary A share.
** National Grid Electricity Transmission plc owns one £0.50 A Ordinary share.
† National Grid Electricity Transmission plc owns 50 £1.00 A Ordinary shares.
‡ In administration.

Our interests and activities are held or operated through the subsidiaries, joint arrangements or associates as disclosed above. These interests and activities (and their branches) are established in – and subject to the laws and regulations of – these jurisdictions.

The following UK subsidiaries will take advantage of the audit exemption set out within section 479A of the Companies Act 2006 supported by guarantees issued by National Grid plc over their liabilities for the year ended 31 March 2023:

Company name	Company number
National Grid Holdings Limited	3096772
National Grid International Limited	2537092
National Grid (US) Holdings Limited	2630496
National Grid (US) Investments 4 Limited	3867128
National Grid (US) Partner 1 Limited	4314432

35. Sensitivities

In order to give a clearer picture of the impact on our results or financial position of potential changes in significant estimates and assumptions, the following sensitivities are presented. These sensitivities are based on assumptions and conditions prevailing at the year end and should be used with caution. The effects provided are not necessarily indicative of the actual effects that would be experienced because our actual exposures are constantly changing.

The sensitivities in the tables below show the potential impact in the income statement (and consequential impact on net assets) for a reasonably possible range of different variables each of which has been considered in isolation (i.e. with all other variables remaining constant). There are a number of these sensitivities which are mutually exclusive, and therefore if one were to happen another would not, meaning a total showing how sensitive our results are to these external factors is not meaningful.

The sensitivities included in the tables below broadly have an equal and opposite effect if the sensitivity increases or decreases by the same amount unless otherwise stated.

(a) Sensitivities on areas of estimation uncertainty

The table below sets out the sensitivity analysis for certain areas of estimation uncertainty set out in note 1F. These estimates are those that have a significant risk of resulting in a material adjustment to the carrying values of assets and liabilities in the next year. Note that the sensitivity analysis for the useful economic lives of our gas network assets is included in note 13.

	2023			2022		
	Assumptions used[1]	**Income statement £m**	**Net assets £m**	Assumptions used	Income statement £m	Net assets £m
Pensions and other post-retirement benefit liabilities (pre tax)[2]:						
UK discount rate change[3]	**1%**	**29**	**1,264**	0.5%	12	1,002
US discount rate change[3]	**1%**	**26**	**977**	0.5%	16	650
UK inflation rate change[4]	**1%**	**8**	**933**	0.5%	11	733
UK long-term rate of increase in salaries change	**1%**	**4**	**50**	0.5%	4	88
US long-term rate of increase in salaries change	**1%**	**4**	**57**	0.5%	3	41
UK change to life expectancy at age 65[5]	**one year**	**2**	**441**	one year	4	635
US change to life expectancy at age 65	**one year**	**3**	**344**	one year	3	444
Assumed US healthcare cost trend rates change	**1%**	**24**	**324**	1%	24	414
Environmental provision:						
Change in the real discount rate	**1.0%**	**159**	**159**	0.5%	81	81
Change in estimated future cash flows	**20%**	**378**	**378**	10%	188	188

1. We have increased the assumption used in our sensitivity analysis this year from 0.5% to 1.0% in light of the recent quantum of market movements.
2. The changes shown are a change in the annual pension and other post-retirement benefit service charge and change in the defined benefit obligations.
3. A change in the discount rate is likely to occur as a result of changes in bond yields and as such would be expected to be offset to a significant degree by a change in the value of the bond assets held by the plans. In the UK, there would also be a £188 million (2022: £164 million) net assets offset from the buy-in policies, where the accounting value of the buy-in asset is set equal to the associated liabilities.
4. The projected impact resulting from a change in RPI reflects the underlying effect on pensions in payment, pensions in deferment and resultant increases in salary assumptions. The buy-in policies would have a £164 million (2022: £119 million) net assets offset to the above.
5. In the UK, the buy-in policies and the longevity swap entered into would have a £136 million (2022: £111 million) net assets offset to the above.

Pensions and other post-retirement benefits assumptions

Sensitivities have been prepared to show how the defined benefit obligations and annual service costs could potentially be impacted by changes in the relevant actuarial assumption that were reasonably possible as at 31 March 2023. In preparing sensitivities, the potential impact has been calculated by applying the change to each assumption in isolation and assuming all other assumptions remain unchanged. This is with the exception of RPI in the UK where the corresponding change to increases to pensions in payment, increases to pensions in deferment and increases in salary are recognised.

35. Sensitivities continued

(b) Sensitivities on financial instruments

We are further required to show additional sensitivity analysis under IFRS 7 and these are shown separately in the subsequent table due to the additional assumptions that are made in order to produce meaningful sensitivity disclosures. The analysis is prepared assuming the amount of liability outstanding at the reporting date was outstanding for the whole year.

Our net debt as presented in note 29 is sensitive to changes in market variables, primarily being UK and US interest rates, the UK inflation rate and the dollar to sterling exchange rate. These impact the valuation of our borrowings, deposits and derivative financial instruments. The analysis illustrates the sensitivity of our financial instruments to reasonably possible changes in these market variables.

The following main assumptions were made in calculating the sensitivity analysis for continuing operations:

- the amount of net debt, the ratio of fixed to floating interest rates of the debt and derivatives portfolio, and the proportion of financial instruments in foreign currencies are all constant and on the basis of the hedge designations in place at 31 March 2023 and 2022 respectively;
- the statement of financial position sensitivity to interest rates relates to items presented at their fair values: derivative financial instruments; our investments measured at FVTPL and FVOCI; and our liability measured at FVTPL. Further debt and other deposits are carried at amortised cost and so their carrying value does not change as interest rates move;
- the sensitivity of interest expense to movements in interest rates is calculated on net floating rate exposures on debt, deposits and derivative instruments;
- changes in the carrying value of derivatives from movements in interest rates of designated cash flow hedges are assumed to be recorded fully within equity; and
- changes in the carrying value of derivative financial instruments designated as net investment hedges from movements in interest rates are presented in equity as costs of hedging, with a one-year release to the income statement. The impact of movements in the dollar to sterling exchange rate is recorded directly in equity.

	2023			2022		
	Assumptions used[1]	**Income statement £m**	**Other equity reserves £m**	Assumptions used	Income statement £m	Other equity reserves £m
Financial risk (post tax):						
UK inflation change[2]	**1%**	**35**	**–**	0.5%	18	–
UK interest rates change	**1%**	**34**	**361**	0.5%	41	134
US interest rates change	**1%**	**14**	**50**	0.5%	4	8
US dollar exchange rate change[3]	**10%**	**51**	**291**	10%	43	397

1. 1% has been used for sensitivity analysis this year as opposed to 0.5% in the prior year, due to the quantum of market rate movements during the year which mean it is considered that 1% is a more appropriate measure for the year ended 31 March 2023.
2. Excludes sensitivities to LPI curve. Further details on sensitivities are provided in note 32(g).
3. The other equity reserves impact does not reflect the exchange translation in our US subsidiaries' net assets. It is estimated this would change by £1,680 million (2022: £1,670 million) in the opposite direction if the dollar exchange rate changed by 10%.

Our commodity contract derivatives are sensitive to price risk. Additional sensitivities in respect to commodity price risk and to our derivative fair values are as follows:

	2023			2022		
	Assumptions used	**Income statement £m**	**Net assets £m**	Assumptions used	Income statement £m	Net assets £m
Commodity price risk (post tax):						
Increase in commodity prices	**10%**	**49**	**49**	10%	53	53
Decrease in commodity prices	**10%**	**(40)**	**(40)**	10%	(54)	(54)
Assets and liabilities carried at fair value (post tax):						
Fair value change in derivative financial instruments[1]	**10%**	**(60)**	**(60)**	10%	(55)	(55)
Fair value change in commodity contract derivative liabilities	**10%**	**(8)**	**(8)**	10%	20	20

1. The effect of a 10% change in fair value assumes no hedge accounting.

36. Additional disclosures in respect of guaranteed securities

Niagara Mohawk Power Corporation, a wholly owned subsidiary of the Group, has issued preferred shares that are listed on a US national securities exchange and are guaranteed by National Grid plc. This guarantor commits to honour any liabilities should the company issuing the debt have any financial difficulties. In order to provide debt holders with information on the financial stability of the company providing the guarantee, we are required to disclose individual financial information for this company. We have chosen to include this information in the Group financial statements rather than submitting separate standalone financial statements.

The following summarised financial information is given in respect of Niagara Mohawk Power Corporation as a result of National Grid plc's guarantee, dated 29 October 2007, of Niagara Mohawk Power Corporation's 3.6% and 3.9% issued preferred shares, which amount to £19 million ($23 million). National Grid plc's guarantee of Niagara Mohawk Power Corporation's preferred shares is full and unconditional. There are no restrictions on the payment of dividends by Niagara Mohawk Power Corporation or limitations on National Grid plc's guarantee of the preferred shares, and there are no factors that may affect payments to holders of the guaranteed securities.

The following summarised financial information for National Grid plc and Niagara Mohawk Power Corporation is presented on a combined basis and is intended to provide investors with meaningful and comparable financial information, and is provided pursuant to the adoption of Rule 13-01 of Regulation S-X in lieu of the separate financial statements of Niagara Mohawk Power Corporation.

Summarised financial information is presented, on a combined basis, as at 31 March 2023. The combined amounts are presented under IFRS measurement principles. Intercompany transactions between National Grid plc and Niagara Mohawk Power Corporation have been eliminated. Investments in other non-issuer and non-guarantor subsidiaries are included at cost, subject to impairment.

Summarised financial information for the year ended 31 March 2023 – IFRS

	National Grid plc and Niagara Mohawk Power Corporation combined £m
Combined statement of financial position	
Non-current loans to other subsidiaries	124
Non-current assets	11,385
Current loans to other subsidiaries	15,382
Current assets	1,610
Current loans from other subsidiaries	(6,181)
Current liabilities	(1,563)
Non-current loans from other subsidiaries	(2,096)
Non-current liabilities	(12,463)
Net assets[1]	6,198
Equity	6,198
Combined income statement – continuing operations	
Revenue	3,601
Operating costs	(3,463)
Operating profit	138
Other income from other subsidiaries	1,691
Other income and costs, including taxation	(157)
Profit after tax	1,672

1. Excluded from net assets above are investments in other consolidated subsidiaries with a carrying value of £14,488 million.

37. Acquisitions

Business combinations are accounted for using the acquisition method. The identifiable assets acquired and liabilities assumed are recognised at their fair values at the acquisition date.

Goodwill is initially measured as the excess of the aggregate of the consideration transferred, the amount recognised for any non-controlling interest and the acquisition-date fair values of any previously held interest in the acquiree over the fair value of the identifiable assets acquired and liabilities assumed at the acquisition date.

Acquisition-related costs are expensed as incurred and included within other operating costs.

Acquisition of NGED

On 14 June 2021, National Grid plc acquired 100% of the share capital of PPL WPD Investments Limited (WPD), the holding company of National Grid Electricity Distribution plc (formerly known as Western Power Distribution plc), which is the UK's largest electricity distribution network operator. The acquisition, along with the two disposals disclosed in note 10, strategically pivots National Grid's UK portfolio towards electricity, in order to significantly enhance National Grid's role in the delivery of the UK's net zero targets, given that electricity distribution is expected to see a high level of asset growth as a result of the ongoing energy transition.

The total cash consideration for the transaction was £7.9 billion, all of which was paid upfront, with no further contingent or deferred consideration payable. As a result of the acquisition, one of NGED's existing borrowing facilities became repayable immediately due to a change in control clause within the original borrowing agreement. The borrowing facility was immediately replaced with an intercompany loan of £350 million from National Grid plc. National Grid funded the transaction price and the new intercompany loan by taking out a bridge financing facility (see note 33) that was fully repaid substantially with the proceeds from the disposals of NECO and the UK Gas Transmission business in the year ended 31 March 2023.

The fair values of the assets and liabilities following the finalisation of the purchase price allocation in the prior year are set out below:

	IFRS book value at acquisition £m	Fair value adjustments £m	Fair value £m
Non-current assets			
Property, plant and equipment	14,077	(4,026)	10,051
Other intangible assets	49	1,714	1,763
Pension assets	402	164	566
Other non-current assets	27	—	27
Total non-current assets	14,555	(2,148)	12,407
Current assets			
Trade and other receivables	268	—	268
Financial and other investments	69	—	69
Cash	44	—	44
Other current assets	42	—	42
Total current assets	423	—	423
Total assets	14,978	(2,148)	12,830
Current liabilities			
Borrowings	(730)	—	(730)
Trade and other payables	(531)	48	(483)
Other current liabilities	(35)	—	(35)
Total current liabilities	(1,296)	48	(1,248)
Non-current liabilities			
Borrowings	(5,967)	(1,589)	(7,556)
Deferred tax	(1,013)	224	(789)
Contract liabilities	(2,706)	2,706	—
Other non-current liabilities	(56)	(21)	(77)
Total non-current liabilities	(9,742)	1,320	(8,422)
Total liabilities	(11,038)	1,368	(9,670)
Total identifiable net assets	3,940	(780)	3,160
Goodwill	1,254	3,467	4,721
Total consideration transferred	5,194	2,687	7,881
Satisfied by:			
Cash consideration			7,881
Total consideration transferred			7,881

37. Acquisitions continued

Acquisition of NGED continued

The goodwill arising from the acquisition represents the future expected growth in the NGED business, the benefits that are expected to be achieved as a result of the combination of the two businesses and the expertise of the management team acquired. No component of goodwill qualifies for recognition as a separate tangible or intangible asset. The goodwill is not deductible for tax purposes and at the acquisition date, there were no material contingent liabilities.

The fair value step down of property, plant and equipment related primarily to the distribution network assets and was calculated with reference to estimated future forecast cash flows of the existing asset base. The fair value adjustment is expected to amortise over approximately 59 years, representing the remaining useful economic lives of the assets. The intangible assets recognised of £1,714 million relate to regulatory licences acquired which provide the right to operate and invest in the relevant network that operates as a monopoly in the licensed geographical area. The fair value of the regulatory licences was estimated by subtracting goodwill and property, plant and equipment-related cash flows from the overall business cash flows. The fair value of borrowings acquired was estimated by discounting the contractual cash flows at a market cost of debt, taking into account the debt margin observed on NGED's listed debt.

The fair value of trade and other receivables of £270 million includes trade receivables with a fair value of £86 million and accrued income of £139 million. The gross contractual amount for trade receivables due is £103 million, of which £17 million was expected to be uncollectible.

Total acquisition-related costs of £110 million were recognised within other operating costs, within exceptional items and remeasurements in the consolidated income statement, of which £15 million was recognised in the year ended 31 March 2021 and £95 million in the year ended 31 March 2022.

NGED generated revenues of £1,468 million and profit before tax of £781 million for the period from 14 June 2021 to 31 March 2022. If the acquisition had occurred on 1 April 2021, the Group's consolidated revenue and consolidated profit before tax from continuing operations for the 12 months ended 31 March 2022 would have been £18,806 million and £3,600 million respectively.

38. Post balance sheet events

In the period between 1 April 2023 and 17 May 2023, there have been no significant post balance sheet events.

Company accounting policies

We are required to include the standalone balance sheet of our ultimate Parent Company, National Grid plc, under the Companies Act 2006. This is because the publicly traded shares are actually those of National Grid plc (the 'Company') and the following disclosures provide additional information to shareholders.

A. Basis of preparation

National Grid plc is the Parent Company of the National Grid Group, which is engaged in the transmission and distribution of electricity and gas in Great Britain and northeastern US. The Company is a public limited company, limited by shares. The Company is incorporated and domiciled in England, with its registered office at 1–3 Strand, London, WC2N 5EH.

The financial statements of National Grid plc for the year ended 31 March 2023 were approved by the Board of Directors on 17 May 2023. The Company meets the definition of a qualifying entity under Financial Reporting Standard 100 (FRS 100) issued by the Financial Reporting Council. Accordingly, these individual financial statements of the Company have been prepared in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101). In preparing these financial statements the Company applies the recognition and measurement requirements of International Financial Reporting Standards (IFRS) as adopted by the UK, but makes amendments where necessary in order to comply with the provisions of the Companies Act 2006 and sets out below where advantage of the FRS 101 disclosure exemptions has been taken.

These individual financial statements have been prepared on a historical cost basis, except for the revaluation of financial instruments, and are presented in pounds sterling, which is the currency of the primary economic environment in which the Company operates. The comparative financial information has also been prepared on this basis.

These individual financial statements have been prepared on a going concern basis, which presumes that the Company has adequate resources to remain in operation and that the Directors intend it to do so, for at least one year from the date the financial statements are signed. As the Company is part of a larger group it participates in the Group's centralised treasury arrangements and so shares banking arrangements with its subsidiaries. The Company is expected to generate positive cash flows or be in a position to obtain liquidity via its committed credit facilities to continue to operate for the foreseeable future.

In accordance with the exemption permitted by section 408 of the Companies Act 2006, the Company has not presented its own profit and loss account or statement of comprehensive income.

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements of the Company in accordance with FRS 101:

- a cash flow statement and related notes;
- disclosures in respect of transactions with wholly-owned subsidiaries;
- disclosures in respect of capital management; and
- the effects of new but not yet effective IFRS standards.

The exemption from disclosing key management personnel compensation has not been taken as there are no costs borne by the Company in respect of employees, and no related costs are recharged to the Company.

As the consolidated financial statements of National Grid plc, which are available from the registered office, include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 in respect of certain disclosures required by IFRS 13 'Fair Value Measurement' and the disclosures required by IFRS 7 'Financial Instruments: Disclosures'.

There are no areas of judgement or key sources of estimation uncertainty that are considered to have a significant effect on the amounts recognised in the financial statements.

The balance sheet has been prepared in accordance with the Company's accounting policies approved by the Board and described below.

B. Fixed asset investments

Investments held as fixed assets are stated at cost less any provisions for impairment. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. Impairments are calculated such that the carrying value of the fixed asset investment is the lower of its cost or recoverable amount. Recoverable amount is the higher of its fair value less costs of disposal and its value-in-use. The Company accounts for common control transactions at cost.

C. Tax

Current tax for the current and prior periods is provided at the amount expected to be paid or recovered using the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is provided in full on temporary differences which result in an obligation at the balance sheet date to pay more tax, or the right to pay less tax, at a future date, at tax rates expected to apply when the temporary differences reverse based on tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date. Deferred tax is provided for using the balance sheet liability method and is recognised on temporary differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit.

Deferred tax assets are recognised to the extent that it is regarded as more likely than not that they will be recovered. Deferred tax assets and liabilities are not discounted.

D. Foreign currencies

Transactions in currencies other than the functional currency of the Company are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at closing exchange rates. Gains and losses arising on retranslation of monetary assets and liabilities are included in the profit and loss account.

E. Financial instruments

The Company's accounting policies are the same as the Group's accounting policies under IFRS, namely IAS 32 'Financial Instruments: Presentation', IFRS 9 'Financial Instruments' and IFRS 7 'Financial Instruments: Disclosures'. The Company applies these policies only in respect of the financial instruments that it has, namely investments, derivative financial instruments, debtors, cash at bank and in hand, borrowings and creditors.

The policies are set out in notes 15, 17, 19, 20, 21 and 22 to the consolidated financial statements. The Company is taking the exemption for financial instruments disclosures, because IFRS 7 disclosures are given in notes 32 and 35 to the consolidated financial statements.

F. Hedge accounting

The Company applies the same accounting policy as the Group in respect of fair value hedges and cash flow hedges. This policy is set out in note 32 to the consolidated financial statements.

G. Parent Company guarantees

The Company has guaranteed the repayment of the principal sum, any associated premium and interest on specific loans due by certain subsidiary undertakings primarily to third parties. Such guarantees are accounted for by the Company as insurance contracts. In the event of default or non-performance by the subsidiary, a liability is recorded in accordance with IAS 37.

H. Share awards to employees of subsidiary undertakings

The issuance by the Company to employees of its subsidiaries of a grant over the Company's options represents additional capital contributions by the Company to its subsidiaries. An additional investment in subsidiaries results in a corresponding increase in shareholders' equity. The additional capital contribution is based on the fair value of the option at the date of grant, allocated over the underlying grant's vesting period. Where payments are subsequently received from subsidiaries, these are accounted for as a return of a capital contribution and credited against the Company's investments in subsidiaries. The Company has no employees except for the Group's Non-executive Directors (refer to the Directors' Remuneration Report on page 101).

I. Dividends

Interim dividends are recognised when they are paid to the Company's shareholders. Final dividends are recognised when they are approved by shareholders.

J. Directors' remuneration

Full details of Directors' remuneration are disclosed on pages 90 – 106.

Company balance sheet
as at 31 March

	Notes	2023 £m	2022 £m
Fixed assets			
Investments	1	**14,480**	14,432
Current assets			
Debtors (amounts falling due within one year)[1]	2	**15,369**	28,255
Debtors (amounts falling due after more than one year)[1]	2	**201**	207
Investments	5	**599**	1,368
Cash at bank and in hand		**55**	45
Total current assets		**16,224**	29,875
Creditors (amounts falling due within one year)	3	**(6,701)**	(23,721)
Net current assets		**9,523**	6,154
Total assets less current liabilities		**24,003**	20,586
Creditors (amounts falling due after more than one year)	3	**(7,755)**	(4,407)
Net assets		**16,248**	16,179
Equity			
Share capital	7	**488**	485
Share premium account		**1,302**	1,300
Cash flow hedge reserve		**(53)**	(15)
Cost of hedging reserve		**2**	(3)
Other equity reserves		**517**	469
Profit and loss account	8	**13,992**	13,943
Total shareholders' equity		**16,248**	16,179

1. Comparative amounts have been re-presented to reflect a correction to the prior year classification of an amount owed by a subsidiary undertaking.

The Company's profit after tax for the year was £1,644 million (2022: £2,371 million profit). Profits available for distribution by the Company to shareholders were £13.9 billion at 31 March 2023. The financial statements of the Company on pages 211 – 217 were approved by the Board of Directors on 17 May 2023 and were signed on its behalf by:

John Pettigrew Chief Executive
Andy Agg Chief Financial Officer

National Grid plc
Registered number: 4031152

Company statement of changes in equity
for the years ended 31 March

	Share capital £m	Share premium account £m	Cash flow hedge reserve £m	Cost of hedging reserve £m	Other equity reserves £m	Profit and loss account £m	Total shareholders' equity £m
At 1 April 2021	474	1,296	(3)	(15)	426	12,480	14,658
Profit for the year[1]	—	—	—	—	—	2,371	2,371
Other comprehensive profit/(loss) for the year							
Transferred (from)/to equity (net of tax)	—	—	(12)	12	—	—	—
Total comprehensive (loss)/profit for the year	—	—	(12)	12	—	2,371	2,371
Other equity movements							
Scrip dividend-related share issue[2]	11	(12)	—	—	—	—	(1)
Issue of treasury shares	—	—	—	—	—	17	17
Transactions in own shares	—	16	—	—	—	(3)	13
Share awards to employees of subsidiary undertakings	—	—	—	—	43	—	43
Equity dividends	—	—	—	—	—	(922)	(922)
At 31 March 2022	485	1,300	(15)	(3)	469	13,943	16,179
Profit for the year[1]	—	—	—	—	—	1,644	1,644
Other comprehensive profit/(loss) for the year							
Transferred (from)/to equity (net of tax)	—	—	(38)	5	—	—	(33)
Total comprehensive (loss)/profit for the year	—	—	(38)	5	—	1,644	1,611
Other equity movements							
Scrip dividend-related share issue[2]	3	(3)	—	—	—	—	—
Issue of treasury shares	—	—	—	—	—	16	16
Transactions in own shares	—	5	—	—	—	(4)	1
Share awards to employees of subsidiary undertakings	—	—	—	—	48	—	48
Equity dividends	—	—	—	—	—	(1,607)	(1,607)
At 31 March 2023	**488**	**1,302**	**(53)**	**2**	**517**	**13,992**	**16,248**

1. Included within profit for the year is dividend income from subsidiaries of £1,691 million (2022: £2,500 million).
2. Included within the share premium account are costs associated with scrip dividends.

Notes to the Company financial statements

1. Fixed asset investments

	Shares in subsidiary undertakings £m
Cost at 1 April 2021	16,809
Additions	43
Cost at 31 March 2022	16,852
Additions	48
Cost at 31 March 2023	16,900
Provision at 1 April 2021	(2,420)
Charge for the year	–
Provision at 1 April 2022	(2,420)
Charge for the year	–
Provision at 31 March 2023	(2,420)
Net book value at 31 March 2023	**14,480**
Net book value at 31 March 2022	14,432

During the year, there was a capital contribution of £48 million (2022: £43 million) which represents the fair value of equity instruments granted to subsidiaries' employees arising from equity-settled employee share schemes.

The Company's direct subsidiary undertakings as at 31 March 2023 were as follows: National Grid (US) Holdings Limited, National Grid (US) Investments 2 Limited*, National Grid Hong Kong Limited*, National Grid Luxembourg SARL and NGG Finance plc. The names of indirect subsidiary undertakings, joint ventures and associates are included in note 34 to the consolidated financial statements.

The Directors believe that the carrying value of the investments is supported by the fair value of their underlying net assets.

* In liquidation.

2. Debtors

	2023 £m	2022 £m
Amounts falling due within one year		
Derivative financial instruments (note 4)	**82**	65
Amounts owed by subsidiary undertakings[1]	**15,285**	28,179
Other debtors	**2**	11
	15,369	28,255
Amounts falling due after more than one year		
Derivative financial instruments (note 4)	**60**	81
Amounts owed by subsidiary undertakings[1]	**124**	120
Deferred tax	**17**	6
	201	207

1. Comparative amounts have been re-presented to reflect a correction to the prior year classification of an amount owed by a subsidiary undertaking.

The carrying values stated above are considered to represent the fair values of the assets. For the purposes of the impairment assessment, loans to subsidiary undertakings are considered low credit risk as the subsidiaries are solvent and are covered by the Group's liquidity arrangements.

A reconciliation of the movement in deferred tax in the year is shown below:

	Deferred tax £m
At 1 April 2021	4
Charged to equity	2
At 31 March 2022	6
Charged to equity	11
At 31 March 2023	**17**

3. Creditors

	2023 £m	2022 £m
Amounts falling due within one year		
Borrowings (note 6)	**402**	9,029
Derivative financial instruments (note 4)	**131**	129
Amounts owed to subsidiary undertakings	**6,138**	14,512
Other creditors	**30**	51
	6,701	23,721
Amounts falling due after more than one year		
Borrowings (note 6)	**5,344**	2,091
Derivative financial instruments (note 4)	**315**	266
Amounts owed to subsidiary undertakings	**2,096**	2,050
	7,755	4,407
Amounts owed to subsidiary undertakings falling due after more than one year are repayable as follows:		
In 1 to 2 years	**439**	–
In 2 to 3 years	**999**	421
In 3 to 4 years	**–**	998
In 4 to 5 years	**658**	–
More than 5 years	**–**	631
	2,096	2,050

The carrying values stated above are considered to represent the fair values of the liabilities.

4. Derivative financial instruments

The fair values of derivative financial instruments are as follows:

	2023			2022		
	Assets £m	Liabilities £m	Total £m	Assets £m	Liabilities £m	Total £m
Amounts falling due within one year	**82**	**(131)**	**(49)**	65	(129)	(64)
Amounts falling due after more than one year	**60**	**(315)**	**(255)**	81	(266)	(185)
	142	**(446)**	**(304)**	146	(395)	(249)

For each class of derivative, the notional contract[1] amounts are as follows:

	2023 £m	2022 £m
Cross-currency interest rate swaps	**(8,232)**	(5,034)
Foreign exchange forward contracts	**(10,213)**	(12,322)
	(18,445)	(17,356)

1. The notional contract amounts of derivatives indicate the gross nominal value of transactions outstanding at the balance sheet date.

5. Investments

	2023 £m	2022 £m
Investments in short-term money funds	**492**	1,164
Restricted balances – collateral	**107**	204
	599	1,368

6. Borrowings

The following table analyses the Company's total borrowings:

	2023 £m	2022 £m
Amounts falling due within one year		
Bank loans	**66**	8,206
Bonds	**28**	4
Commercial paper	**308**	819
	402	9,029
Amounts falling due after more than one year		
Bank loans	**106**	—
Bonds	**5,238**	2,091
	5,344	2,091
Total borrowings	**5,746**	11,120

The maturity of total borrowings is as follows:

	2023 £m	2022 £m
Total borrowings are repayable as follows:		
Less than 1 year	**402**	9,029
In 3 to 4 years	**563**	—
In 4 to 5 years	**387**	—
More than 5 years	**4,394**	2,091
	5,746	11,120

The notional amount of borrowings outstanding as at 31 March 2023 was £5,931 million (2022: £11,215 million).

7. Share capital

The called-up share capital amounting to £488 million (2022: £485 million) consists of 3,930,371,661 ordinary shares of $12^{204}/_{473}$ pence each (2022: 3,904,074,348 ordinary shares of $12^{204}/_{473}$ pence each). For further information on share capital, refer to note 27 of the consolidated financial statements.

8. Shareholders' equity and reserves

At 31 March 2023, the profit and loss account reserve stood at £13,992 million (2022: £13,943 million) of which profits available for distribution by the Company to shareholders were £13.9 billion (2022: £12.2 billion).

For further details of dividends paid and payable to shareholders, refer to note 9 of the consolidated financial statements.

9. Parent Company guarantees

The Company has guaranteed the repayment of the principal sum, any associated premium and interest on specific loans due by certain subsidiary undertakings primarily to third parties. At 31 March 2023, the sterling equivalent amounted to £2,117 million (2022: £2,084 million). The guarantees are for varying terms from less than one year to open-ended.

In addition, as part of the sectionalisation of the National Grid UK Pension Scheme on 1 January 2017, a guarantee of £1 billion has been provided to Section A. This payment is contingent on insolvency or on failure to pay pensions obligations to Section A and can be claimed against National Grid plc, National Grid Holdings One plc or Lattice Group Limited (up to £1 billion in total). Refer to note 25 of the consolidated financial statements.

10. Audit fees

The audit fee in respect of the Parent Company was £33,000 (2022: £31,000). Fees payable to Deloitte for non-audit services to the Company are not required to be disclosed as they are included within note 4 to the consolidated financial statements.

Additional Information

The business in detail

UK regulation

Our licences to participate in transmission, distribution and interconnection activities are established under the Electricity Act 1989. These require us to develop, maintain and operate economic and efficient networks and to facilitate competition in the supply of electricity in GB. They also give us statutory powers, including the right to bury our pipes or cables under public highways and the ability to use compulsory powers to purchase land so we can conduct our business.

Our licensed activities are regulated by Ofgem, which has a statutory duty under the Electricity Act 1989 to protect the interests of consumers. To protect consumers from the ability of companies to set unduly high prices, Ofgem has established price controls that limit the amount of revenue such regulated businesses can earn. In setting price controls, Ofgem must have regard to the need to secure that licence holders are able to finance their obligations under the Electricity Act 1989. This should give us a level of revenue for the duration of the price control that is sufficient to meet our statutory duties and licence obligations with a reasonable return on our investments. Licensees and other affected parties can appeal price controls or within period licence modifications which have errors, including in respect of financeability.

The transmission and distribution businesses follow the RIIO (revenue = incentives + innovation + outputs) framework established by Ofgem. There are multiple price controls under this framework, including:

- RIIO-T1 (electricity transmission, April 2013 – March 2021);
- RIIO-T2 (electricity transmission, April 2021 – March 2026);
- RIIO-ED1 (electricity distribution, April 2015 – March 2023); and
- RIIO-ED2 (electricity distribution, April 2023 – March 2028).

While the RIIO-T1 period has finished, and confirmation of the delivered outputs and performance levels was reported through the annual reporting process in July 2021, there is a close-out process ongoing to finalise adjustments to allowed revenues in respect of a few licence condition obligations for the RIIO-T1 period; this is expected to conclude during 2023.

Our UK ET, UK ED and Electricity System Operator (ESO) businesses operate under four separate price controls, which cover our roles as Transmission Owner (TO) and System Operator (SO) in electricity, and our electricity distribution activities. UK ET fulfils the TO function for electricity, the ESO fulfils the SO function for electricity and UK ED fulfils electricity distribution activities.

In addition to these four regulated network price controls, there is also a tariff cap price control applied to regulation of our electricity interconnector interests.

Since 1 April 2019, the ESO has been a legally separate business within the Group. This means it operates under its own licence and has a separate set of regulatory arrangements, along with strict ringfences for information.

UK ED operates under one regulatory framework, the RIIO-ED model. Distribution network operators (DNOs) in the UK are natural monopolies and to ensure value for money for consumers UK ED is regulated by Ofgem. The operations are regulated under the distribution licence which sets the requirements that UK ED needs to deliver for its customers. In addition to the base level of revenue which the DNOs are allowed to earn, there are incentives to innovate and deliver various outputs relating to customer service, network performance, the environment, connections and efficiency. The achievement or not of targets in relation to these activities can result in rewards or penalties.

More information on the regulation of the ESO, UK ED and interconnectors is given in separate sections below.

RIIO price controls

The building blocks of the RIIO price controls are broadly similar to the price controls historically used in the UK. There are, however, some significant differences in the mechanics of the calculations.

Under RIIO, the outputs we deliver are explicitly articulated and our allowed revenues are linked to their delivery, although some outputs and deliverables have only a reputational impact or are linked to legislation. These outputs reflect what our stakeholders have told us they want us to deliver and were determined through an extensive consultation process, which gave stakeholders a greater opportunity to influence the decisions.

Using information we have submitted, along with independent assessments, including for RIIO-T2 an Independent User Group (IUG) report, Ofgem determines the efficient level of expected costs necessary for these deliverables to be achieved. Under RIIO this is known as ‘totex’, which is a component of total allowable expenditure and is broadly the sum of what was defined in previous price controls as operating expenditure (opex) and capital expenditure (capex).

A number of assumptions are necessary in setting allowances for the outputs that we will deliver, including the volumes of work that will be needed and the price of the various external inputs required to achieve them. Consequently, there are a number of uncertainty mechanisms within the RIIO framework designed to protect consumers and network companies by avoiding the need to set allowances when future needs and costs are uncertain.

Where we under- or over-spend the allowed totex for reasons that are not covered by uncertainty mechanisms, there is a ‘sharing’ factor. This means we share the under- or over-spend with customers through an adjustment to allowed revenues in future years. This sharing factor provides an incentive for us to provide the outputs efficiently, as we are able to keep a portion of savings we make, with the remainder benefitting our customers. Likewise, it provides a level of protection for us if we need to spend more than allowances. Alongside this, there are several specific areas where companies can submit further claims for new allowances within the period, for instance to enable net zero.

Allowed revenue to fund totex costs is split between RIIO ‘fast’ and ‘slow’ money categories using specified ratios that are fixed for the duration of the price control. Fast money represents the amount of totex we are able to recover in the year of expenditure. Slow money is added to our RAV – effectively the regulatory IOU.

For more details on the sharing factors under RIIO for our transmission businesses, please see the tables on page 221.

In addition to fast money, each year we are allowed to recover regulatory depreciation, i.e. a portion of the RAV, and a return on the outstanding RAV balance. The RAV is also indexed to a measure of inflation, using CPIH in RIIO-T2. For RIIO-T2, regulatory depreciation for ET continues on a straight-line depreciation methodology over 45 years. We are also allowed to collect additional revenues related to non-controllable costs and incentives.
In addition to totex sharing, RIIO incentive mechanisms can increase or decrease our allowed revenue to reflect our performance against various other measures related to our outputs. For example, in RIIO-T2 there are rewards and penalties for performance against incentives. These incentive payments are a function of allowed revenue and could result in potential upsides for UK ET of up to £15 million and downsides in the region of £47 million, therefore incentivising us to deliver the agreed outputs.

The RIIO-ED1 price control

From 1 April 2015, Ofgem set an eight-year electricity price control (known as RIIO-ED1). UK ED submitted an outputs-based business plan for the RIIO-ED1 period (2015 – 2023), which was accepted by Ofgem as “well justified” and could therefore “fast-track” all four UK ED licensed areas; the only DNO group to be fast-tracked. UK ED’s modified licences took effect from 1 April 2015. Our 76 commitments within the RIIO-ED1 business plan fall within the following six categories: safety, reliability, environment, connections, customer satisfaction and social obligations.

These price controls include a number of mechanisms designed to help achieve their objectives. These include financial incentives that encourage us to:

- efficiently deliver, through investment and maintenance, the network outputs that customers and stakeholders require, including reliable supplies, new connections and infrastructure capacity; and
- innovate so we can continuously improve the services we provide to our customers, stakeholders and communities.

Regulation of UK ED: RIIO-ED2

RIIO-ED2, covering the period April 2023 to March 2028, is the second price control to be set under the RIIO model. The final submission of our business plan was made on 1 December 2021 and Ofgem’s Final Determination was published on 30 November 2022. Following the acceptance of the Final Determination we have prepared a RIIO-ED2 delivery plan which sets out how we will continue to improve on our already industry-leading standards while adapting to the changing needs of our customers and the environment in which we operate. Our business plan for RIIO-ED1, 2015 – 2023, 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. The RIIO-ED2 delivery plan contains 420 ambitious core commitments and more than 400 wider commitments, all designed to achieve four crucial outcomes for our customers:

Affordability: We will continue to deliver the highest standards of safety, reliability and customer service that customers have come to expect from us. Power cuts will be at their lowest ever levels and customer satisfaction will be at its highest at over 93%. Crucially we will achieve all of this while keeping our portion of the average domestic customer bill affordable.

Sustainability: We will support the UK’s ambitions to achieve net zero carbon emissions by 2050, driving crucial changes in energy usage and customer green behaviour. We will set the benchmark by achieving net zero in our own operations by 2030 (excluding engineering network losses and Scope 3 emissions) and we will ensure the network is ready to enable local authorities to achieve similar ambitions in their regions.

Connectability: A lack of network capacity should not be a barrier for our customers. We will ensure that the network can cater for up to 1.5 million additional EVs, 600,000 heat pumps and a significant increase in renewable generation over the next five years.

Vulnerability: We will deliver a first class programme of inclusive support. This will include offering 600,000 smart energy action plans for vulnerable customers each year, ensuring no one is left behind in a smart future. We will also more than double our ground breaking fuel poverty support to deliver over £60 million of savings for 113,000 fuel poor customers over the course of RIIO-ED2.

Regulation of UK ET: RIIO-T2

The RIIO-T2 price control started on 1 April 2021 and builds on the framework established for RIIO-T1. For example, it introduces a range of new mechanisms to facilitate the transition to net zero, continues support for innovation, incentivises us to deliver outputs and service quality with ambitious targets aligned to our customers’ and stakeholders’ requirements and increases the opportunity to secure new funding within the price control period.

The IUG includes a cross-section of the energy industry and represents the interests of consumers, environmental and public interest groups, as well as large-scale and small-scale customers. It was established in July 2018 to ensure stakeholders are at the heart of our decision-making processes and our plan is fully reflective of customers’, consumers’ and other stakeholders’ requirements. The IUG has an enduring role in RIIO-T2 with three key focus areas:

- scrutinise and challenge the periodic business plans;
- monitor, interrogate and help the business to enhance transparency of performance against commitments; and
- act as a ‘critical friend’ for strategy, culture and processes in key areas such as stakeholder engagement, innovation, customers, consumers and responsible business.

Competition in onshore transmission

The UK Government is set to legislate to enable competition in onshore electricity networks using measures brought forward through the Energy Bill. However, Ofgem announced 17 ASTI projects exempt from competition to avoid the slowing of progress towards energy security and decarbonisation targets. Notwithstanding, Ofgem continues to pursue competition in transmission, it published its decision to proceed with the implementation of the Early Competition model in March 2022 and has instructed the ESO to progress work in preparation to launch the Early Competition process pending regulation.

We have consistently advocated for competition in electricity transmission where there is a clear consumer benefits case, and this continues to be our position. We note that there has been an intention to introduce competition into electricity transmission for several years and the challenges facing us moving forward are very different from what was envisaged when this policy started. It is important that this broader landscape shift, recognised through the recent ASTI decisions published by Ofgem, is considered when assessing the potential benefit of applying a competitive model. Ofgem, through ASTI, recognises that there is a need for accelerated delivery to meet government decarbonisation commitments and that this drives a very different approach to project regulation, incentivisation and supply chain engagement and contracting. This must be considered when thinking about the potential consumer impact of competition.

We continue to work with Ofgem, ESO, DESNZ and the industry to develop early competition where it can be demonstrated to be beneficial to consumers. We are continuously learning how to improve in the energy supplier market and must ensure the network sector remains resilient to external changes. Any new entrant must be held to a consistent set of standards of financial and operational resilience, with proper oversight from Ofgem. This will protect our critical infrastructure and ensure that the costs of poor performance or failure are not socialised amongst taxpayers or consumers.

Key parameters from Ofgem's RIIO-ED1 determination for UK ED and RIIO-T2 for UK ET

	UK ED	UK ET
Allowed Return on Equity (RoE)[1]	6.40% (real, relative to RPI) at 65% gearing)	4.25% (real, relative to CPIH), at 55% gearing (which is broadly equivalent to 4.55% at 60% gearing)
Allowed debt funding	Based on 10-year trailing average of iBoxx series	Calculated and updated each year using an extending 'trombone-like' trailing average of iBoxx Utilities 10+ year index (increases from 10 years for 2021/22 to 14 years for 2025/26), plus 25bps additional borrowing costs
Depreciation of RAV	Straight-line 45-year depreciation	No change in policy: straight line over 45 years for post-2021 RAV additions, with pre-2021 RAV additions as per RIIO-T1
Notional gearing	65%	55%
Split between fast/slow money	80% capitalisation rate in RIIO-ED1	Fast: RIIO-T2 baseline 22%; RIIO-T2 uncertainty mechanisms 15% Slow: RIIO-T2 baseline 78%; TO uncertainty mechanisms 85%
Sharing factor	70%	33%
Core baseline totex in 2018/19 prices (cumulative for the eight years of RIIO-ED1 and five years of RIIO-T2)	£8.1 billion	£5.8 billion

1. The cost of equity in RIIO-T2 is subject to annual adjustments that are calculated using the Capital Asset Pricing Model, through indexation of the 'risk-free rate' parameter. The 4.25% and 4.55% figures shown in this row are Ofgem's estimates of the average allowed RoE over the five years of RIIO-T2, as given in the RIIO-T2 Price Control Financial Model published in November 2021.

Regulation of the ESO

A primary goal of ESO legal separation in April 2019 was to increase transparency of our activities and help minimise any perceived conflicts of interest with the ESO as part of National Grid plc. More recently, the UK government has committed to the creation of a Future System Operator (FSO) as part of the draft Energy Bill, which will be at the heart of GB's energy system and the delivery of net zero.

Due to its unique role within industry, the ESO has a bespoke regulatory framework, with the five-year RIIO-2 period being split into a number of smaller business plan periods. During the last financial year the ESO had submitted its second business plan, based on stakeholder feedback and setting out the ESO's mission, ambitions and planned activities. The business plan 2 period will run from April 2023 to March 2025.

The ESO's funding uses a pass-through mechanism (where all efficiently incurred costs can be recovered through regulated revenues), and the ESO has the flexibility to deviate from its published plans, delivering additional activities where there is an opportunity to benefit consumers. The RIIO-2 regulatory framework includes a return on RAV but also provides additional non-RAV funding for roles and risks that are not linked to an asset base.

There is no totex incentive mechanism for the ESO in RIIO-2, which means that the ESO has greater flexibility to adjust spending in order to deliver its ambitious business plan and maximise consumer benefit.

ESO performance continues to be assessed via an evaluative incentive approach and the value has been set for the business plan 1 period as a total maximum reward of £30 million and maximum penalty of £12 million for the two-year period. As part of this incentive scheme, a Performance Panel of industry stakeholders scores the ESO on its performance, informing the reward or penalty awarded by Ofgem at the end of the two-year business plan 1 period.

Interconnectors regulation

Interconnectors derive their revenues from sales of capacity to users who wish to move power between market areas with different prices. From 1 January 2021, interconnectors to the UK are no longer governed by European legislation, and the operation of these interconnectors is governed by individual sets of access rules which are agreed by regulators at each end of the link. This does not affect the fundamental business model for interconnectors.

Under UK legislation, interconnection businesses must be separate from the transmission businesses.

There is a range of different regulatory models available for interconnector projects. These involve various levels of regulatory intervention, ranging from fully merchant (where the project is fully reliant on sales of interconnector capacity) to cap and floor.

The cap and floor regime is now the regulated route for interconnector investment in GB and may be sought by project developers who do not qualify for, or do not wish to apply for, exemptions from UK and European legislation which would facilitate a merchant development.

Multi-purpose interconnectors (MPIs) combine interconnection with offshore wind. Ofgem has established a pilot scheme and is developing the regulatory regime for these assets.

US regulation

Regulators

In the US, public utilities' retail transactions are regulated by state utility commissions which serve as economic regulators, approving cost recovery and authorised rates of return. The state commissions establish the retail rates to recover the cost of transmission and distribution services within their jurisdictions. They also serve the public interest by making sure utilities provide safe and reliable services at just and reasonable prices. The commissions establish service standards and approve public utility mergers and acquisitions. State commissions are also asked to approve a variety of programmes and costs related to state energy and climate goals.

The Federal Energy Regulatory Commission (FERC) regulates wholesale transactions for utilities, such as interstate transmission and wholesale electricity sales, including rates for these services, at the federal level. FERC also regulates public utility holding companies and centralised service companies, including those of our US businesses.

Regulatory process

The US regulatory regime is premised on allowing the utility the opportunity to recover its cost of service and earn a reasonable return on its investments as determined by each commission. Utilities submit formal rate filings (rate cases) to the relevant state regulator when additional revenues are necessary to provide safe, reliable service to customers. Additionally, utilities can be compelled to file a rate case, either due to complaints filed with the commission or at the commission's own discretion.

The rate case is typically litigated with parties representing customers and other interests. The utility is required to prove that the requested rate change is just and reasonable, and the requested rate plan can span multiple years. In the states where we operate, it can typically take 9 – 13 months for the commission to render a final decision, although, in some instances, rules allow for longer negotiation periods which may extend the length of the rate case proceeding. Unlike the state processes, FERC, as the federal regulator, has no specified timeline for adjudicating a rate case; typically it makes a final decision retroactively when the case is completed.

Gas and electricity rates are established from a revenue requirement, or cost of service, equal to the utility's total cost of providing distribution or delivery services to its customers, as approved by the commission in the rate case. This revenue requirement includes operating expenses, depreciation, taxes, and a fair and reasonable return on shareholder capital invested in certain components of the utility's regulated asset base or 'rate base'.

The final revenue requirement and rates for service are approved in the rate case decision. The revenue requirement is derived from a comprehensive study of the utility's total costs during a representative 12-month period, referred to as a test year. Each commission has its own rules and standards for adjustments to the test year. These may include forecast capital investments and operating costs.

Our rate plans

Each operating company has a set of rates for service. We have three electric distribution companies: Niagara Mohawk Power Corporation, with operations in upstate New York, Massachusetts Electric Company and Nantucket Electric Company, each with operations in Massachusetts.

Our distribution operating companies have revenue-decoupling mechanisms that delink their revenues from the quantity of energy delivered and billed to customers. These mechanisms remove the natural disincentive utility companies have for promoting and encouraging customer participation in energy-efficiency programmes that lower energy end-use and distribution volumes.

We bill our customers for their use of electricity and gas services. Customer bills typically cover the cost of the commodity (electricity or gas delivered) and charges covering our delivery service. Our customers are allowed to select an unregulated competitive supplier for the commodity component of electricity and gas utility services.

A substantial proportion of our costs, in particular electricity and gas commodity purchases, are pass-through costs, fully recoverable from our customers. We recover pass-through costs through making separate charges to customers, designed to recover those costs with no profit. We adjust the charges from time to time, often annually to make sure that any over- or under-recovery of these costs is returned to, or recovered from, our customers.

US regulatory revenue requirement

A Rate base
B Debt
C Equity
D Return
E Controllable costs
F Non-controllable costs
G Depreciation
H Taxes
I Lagged recoveries
J Allowed revenue

Our rate plans are designed to a specific allowed RoE, by reference to an allowed operating expense level and rate base. Some rate plans include earnings-sharing mechanisms that allow us to retain a proportion of the earnings above our allowed RoE, achieved through improving efficiency, with the balance benefitting customers. In addition, our performance under certain rate plans is subject to service performance targets. We may be subject to monetary penalties in cases where we do not meet those targets.

Our FERC-regulated transmission companies use formula rates (instead of periodic stated rate cases) to set rates annually that recover their cost of service. Through the use of annual true-ups, formula rates recover our actual costs incurred and the allowed RoE based on the actual transmission rate base each year. We must make annual formula rate filings documenting the revenue requirement that customers can review and challenge.

Revenue for our wholesale transmission businesses in New England and New York is collected from wholesale transmission customers. These are typically other utilities and include our own New England electricity distribution businesses. With the exception of upstate New York, which continues to combine retail transmission and distribution rates to end-use customers, these wholesale transmission costs are generally incurred by distribution utilities on behalf of their customers. They are fully recovered as a pass-through from end-use customers, as approved by each state commission.

Our Long Island generation plants sell capacity to the Long Island Power Authority (LIPA) under 15-year and 25-year power supply agreements and within wholesale tariffs approved by FERC. Through the use of cost-based formula rates, these long-term contracts provide a similar economic effect to cost-of-service rate regulation.

One measure used to monitor the performance of our regulated businesses is a comparison of achieved RoE to allowed RoE. However, this measure cannot be used in isolation, as several factors may prevent us from achieving the allowed RoE. These include financial market conditions, regulatory lag (e.g. the time period after a rate or expense is approved for recovery but before we collect the same from customers) and decisions by the regulator preventing cost recovery in rates from customers.

We work to increase achieved RoE through:

- productivity improvements;
- positive performance against incentives or earned savings mechanisms, such as available energy-efficiency programmes; and
- filing a new rate case when achieved returns are lower than those the Company could reasonably expect to attain through a new rate case.

US regulatory filings

The objectives of our rate case filings are to make sure we have the right cost of service and are able to earn a fair and reasonable rate of return, while providing a safe, reliable and economical service. To achieve these objectives and reduce regulatory lag, we have been successful in many cases in obtaining relief, such as:

- revenue-decoupling mechanisms;
- capital trackers;
- commodity-related bad debt true-ups;
- pension and other post-employment benefit true-ups, separately from base rates; and
- performance-based frameworks such as incentives and multi-year plans.

We explain these terms in the table on page 224.

Below, we summarise significant, recent developments in rate filings and the regulatory environment.

- A joint proposal setting forth a three-year rate plan for KEDNY and KEDLI was approved by the New York State Public Service Commission (NYPSC) in August 2021.
- A joint proposal, setting forth a three-year rate plan for Niagara Mohawk, was approved by the NYPSC in January 2022.
- An amended settlement agreement setting forth a three-year rate plan for The Narragansett Electric Company was approved by the Rhode Island Public Utilities Commission (RIPUC) in August 2018. The multi-year rate plan includes an interim fourth year, effective 1 September 2021.

In November 2018, we made a full rate case filing for Massachusetts Electric which resulted in a five-year performance-based ratemaking plan in September 2019. In November 2020, we made a full rate case filing for Boston Gas resulting in a five-year performance-based ratemaking plan in September 2021.

Massachusetts

Massachusetts Electric and Nantucket Electric rate cases

We filed a rate case for Massachusetts Electric and Nantucket Electric with the Massachusetts Department of Public Utilities (MADPU) on 15 November 2018 with new rates effective on 1 October 2019. The Massachusetts Electric rate case was the first for Massachusetts Electric and Nantucket Electric since the case was filed in 2015. It updated the electric companies' rates to more closely align revenues with the cost of service and bring their earned RoEs closer to the allowed RoE. New rates were approved with an allowed RoE of 9.6% on an equity ratio of 53.5%. The MADPU approved a five-year performance-based ratemaking plan, which adjusts distribution rates annually based on a predetermined formula. As part of its decision, the MADPU required a management audit addressing the Company's strategic planning processes, staffing decisions and its relationship to National Grid USA Service Company, among other items.

Boston Gas Company rate case

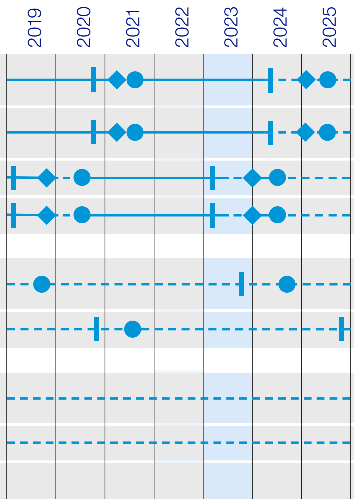
On 30 September 2021, the MADPU issued an order in Boston Gas Company's most recent rate case. The MADPU decision: (1) allowed an increase in base revenues of $144.86 million, as compared with the request for $220.74 million; (2) authorised an RoE of 9.70%, raised from the previous RoE of 9.5%; (3) authorised a capital structure of 53.44% equity and 46.56% debt; and (4) allowed for recovery of the costs of 133 new, incremental full-time employees. The decision also approved the Boston Gas Company's proposed five-year performance-based ratemaking plan which adjusts distribution rates annually based on a predetermined formula. Boston Gas Company had also presented its Future of Heat proposals to address Massachusetts' ambitious greenhouse gas emissions reduction goals. These proposals are innovative programmes and demonstration projects that the Boston Gas Company has developed to reduce emissions, promote gas demand response, and encourage the development of sustainable heating options and new technologies to advance low-carbon heating solutions. Ultimately, the MADPU elected to remove our Future of Heat proposals from the rate case without prejudice for their consideration as part of other proceedings. Subsequently, on 15 December 2021, the MADPU approved the Boston Gas Company's geothermal district energy demonstration programme for five years with a budget of $15.6 million.

New York

Downstate New York 2023 rate cases

KEDNY and KEDLI filed rate cases with the NYPSC on 28 April 2023 seeking to increase delivery revenues by $414 million and $228 million respectively for the year ending 31 March 2025. The filings proposes capital investments of more than $1.67 billion for KEDNY and KEDLI in the first rate year to modernise KEDNY and KEDLI's gas infrastructure to implement safety improvements, enhance reliability and resilience, replace ageing and leak-prone facilities and reduce methane emissions. We aim to update our allowed revenues to reflect our cost of service more closely while maintaining affordable energy for customers. The rate cases align with our 2050 vision to support a sustainable and affordable path towards a low-carbon energy future. Additionally, the rate filings included proposals to expand low-income and energy-efficiency programmes, fund hydrogen blending and renewable natural gas projects, and enhance customer service. The companies filed three additional years of data to facilitate the possibility of a multi-year settlement. Our current rate plan will be applicable until this rate proceeding concludes.

Summary of US price controls and rate plans



Regulator		Rate base (31 Mar 2023)	Equity-to-debt ratio	Allowed Return on Equity	Achieved Return on Equity (31 Mar 2023)	Revenue decoupling†	Capital tracker‡	Commodity-related bad debt true-up§	Pension/OPEB true-up◊
NYPSC	Niagara Mohawk[1] (upstate, electricity)	**$7,045m**	**48:52**	**9.0%**	**8.1%**	✓	**P**	**P**	✓
	Niagara Mohawk (upstate, gas)	**$1,800m**	**48:52**	**9.0%**	**7.1%**	✓	**P**	**P**	✓
	KEDNY (downstate)[2]	**$6,048m**	**48:52**	**8.8%**	**9.2%**	**P**	**P**	**P**	✓
	KEDLI (downstate)[3]	**$3,774m**	**48:52**	**8.8%**	**9.2%**	**P**	**P**	**P**	✓
Massachusetts Department of Public Utilities	Massachusetts Electric/Nantucket Electric	**$3,106m**	**53:47**	**9.6%**	**5.9%**	✓	**P**	✓	✓
	Massachusetts Gas	**$4,170m**	**53:47**	**9.7%**	**8.6%**	✓	**P**	**P**	✓
Federal Energy Regulatory Commission	Canadian Interconnector/Other[4]	**$59m**	**65:35**	**11.1%**	**11.1%**	**n/a**	✓	**n/a**	✓
	New England Power	**$2,420m**	**61:39**	**10.6%**	**11.1%**	**n/a**	✓	**n/a**	✓
	Long Island Generation	**$415m**	**48:52**	**9.9%**	**13.9%**	**n/a**	✓	**n/a**	✓

1. Both transmission and distribution, excluding stranded costs.
2. KeySpan Energy Delivery New York (the Brooklyn Union Gas Company).
3. KeySpan Energy Delivery Long Island (KeySpan Gas East Corporation).
4. Equity ratio and Return on Equity values are for the Canadian Interconnector only.

Rate filing made
New rates effective
Rate plan ends
Rates continue indefinitely
Multi-year rate plan

✓ Feature in place
P Feature partially in place

†Revenue decoupling

A mechanism that removes the link between a utility's revenue and sales volume so that the utility is indifferent to changes in usage. Revenues are reconciled to a revenue target, with differences billed or credited to customers. This allows the utility to support energy efficiency.

‡Capital tracker

A mechanism that allows the recovery of the revenue requirement of incremental capital investment above that embedded in base rates, including depreciation and a return on the incremental investment.

§Commodity-related bad debt true-up

A mechanism that allows a utility to reconcile commodity-related bad debt either to actual commodity-related bad debt or to a specified commodity-related bad debt write-off percentage. For electricity utilities, this mechanism also includes working capital.

◊Pension/OPEB true-up

A mechanism that reconciles the actual non-capitalised costs of pension and other post-employment benefits (OPEB) and the actual amount recovered in base rates. The difference may be amortised and recovered over a period or deferred for a future rate case.

Internal control and risk factors

Disclosure controls

Our management, including the Chief Executive and Chief Financial Officer, have evaluated the effectiveness of the design and operation of our disclosure controls and procedures as at 31 March 2023. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives; however, their effectiveness has limitations, including the possibility of human error and the circumvention or overriding of the controls and procedures.

Even effective disclosure controls and procedures provide only reasonable assurance of achieving their objectives. Based on the evaluation, the Chief Executive and Chief Financial Officer concluded that the disclosure controls and procedures are effective to provide reasonable assurance that information required for disclosure in the reports that we file and submit under the Securities Exchange Act 1934 is recorded, processed, summarised and reported as and when required and that such information is accumulated and communicated to our management, including the Chief Executive and Chief Financial Officer, as appropriate, to allow timely decisions regarding disclosure.

Internal control over financial reporting

Our management, including the Chief Executive and Chief Financial Officer, have carried out an evaluation of our internal control over financial reporting pursuant to the Disclosure Guidance and Transparency Rules (DTR) and section 404 of the Sarbanes–Oxley Act. As required by section 404, management is responsible for establishing and maintaining an adequate system of internal control over financial reporting (as defined in Rules 13(a) – 5(f) and 15(d) – 15(f) under the Securities Exchange Act 1934).

Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes, in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management's evaluation of the effectiveness of the Company's internal control over financial reporting was based on the revised Internal Control – Integrated Framework 2013 issued by the Committee of Sponsoring Organizations of the Treadway Commission. Using this evaluation, management concluded that our internal control over financial reporting was effective as at 31 March 2023.

Deloitte LLP, which has audited our consolidated financial statements for the year ended 31 March 2023, has also audited the effectiveness of our internal control over financial reporting.

During the year, there were no changes that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Risk factors

Management of our risks is an important part of our internal control environment, as we describe on pages 225 – 228. In addition to the principal risks listed, we face a number of inherent risks that could have a material adverse effect on our business, financial condition, results of operations and reputation, as well as the value and liquidity of our securities. Any investment decision regarding our securities and any forward-looking statements made by us should be considered in the light of these risk factors and the cautionary statement set out on page 260. An overview of the key inherent risks we face is provided below.

Risk factors

Law, regulation and political and economic uncertainty

Changes in law or regulation, or decisions by governmental bodies or regulators and increased political and economic uncertainty, could materially adversely affect us.

Most of our businesses are utilities or networks subject to regulation by governments and other authorities. Changes in law or regulation or regulatory policy and precedent (including changes arising as a result of the UK's exit from the European Union), as well as legislation introduced to facilitate the attainment of net zero emissions targets, and decisions of governmental bodies or regulators in the countries or states in which we operate could materially adversely affect us. We may fail to deliver any one of our customer, investor and wider stakeholder propositions due to increased political and economic uncertainty.

If we fail to respond to or meet our own commitments as a leader in relation to climate change and the energy transition, we may be unable to influence future energy policy and deliver our strategy.

Decisions or rulings concerning the following (as examples) could have a material adverse impact on our results of operations, cash flows, the financial condition of our businesses and the ability to develop those businesses in the future:

- the implementation of the RIIO-T2 and RIIO-ED2 price controls; whether licences, approvals or agreements to operate or supply are granted, amended or renewed; whether consents for construction projects are granted in a timely manner; or whether there has been any breach of the terms of a licence, approval or regulatory requirement; and
- timely recovery of incurred expenditure or obligations; the ability to pass through commodity costs; a decoupling of energy usage and revenue, and other decisions relating to the impact of general economic conditions on us, our markets and customers; implications of climate change and of advancing energy technologies; whether aspects of our activities are contestable; and the level of permitted revenues and dividend distributions for our businesses and in relation to proposed business development activities.

For further information, see pages 219 – 223, which explain our regulatory environment in detail.

Potentially harmful activities

Aspects of the work we do could potentially harm employees, contractors, members of the public or the environment.

Potentially hazardous activities that arise in connection with our business include: the generation, transmission and distribution of electricity; and the storage, transmission and distribution of gas. Electricity and gas utilities also typically use and generate hazardous and potentially hazardous products and by-products. In addition, there may be other aspects of our operations that are not currently regarded or proved to have adverse effects but could become so.

A significant safety or environmental incident, or the failure of our safety processes or of our occupational health plans, as well as the breach of our regulatory or contractual obligations or our climate change targets, could materially adversely affect our results of operations and our reputation.

Safety is a fundamental priority for us, and we commit significant resources and expenditure to ensure process safety; to monitoring personal safety, occupational health and environmental performance; and to meeting our obligations under negotiated settlements.

We are subject to laws and regulations in the UK and US governing health and safety matters to protect the public and our employees and contractors, who could potentially be harmed by these activities, as well as laws and regulations relating to pollution, the protection of the environment, and the use and disposal of hazardous substances and waste materials.

These expose us to costs and liabilities relating to our operations and properties, including those inherited from predecessor bodies, whether currently or formerly owned by us, and sites used for the disposal of our waste.

The cost of future environmental remediation obligations is often inherently difficult to estimate, and uncertainties can include the extent of contamination, the appropriate corrective actions and our share of the liability. We are increasingly subject to regulation in relation to climate change and are affected by requirements to reduce our own carbon emissions (including our own commitment to reduce our greenhouse gas emissions to net zero by 2050) as well as to enable reduction in energy use by our customers. If more onerous requirements are imposed or our ability to recover these costs under regulatory frameworks changes, this could have a material adverse impact on our business, reputation, results of operations and financial position.

Infrastructure and IT systems

We may suffer a major network failure or interruption, or may not be able to carry out critical operations due to the failure of infrastructure, data or technology or a lack of supply.

Operational performance could be materially adversely affected by: a failure to maintain the health of our assets or networks; inadequate forecasting of demand; and inadequate record keeping or control of data or failure of information systems and supporting technology. This, in turn, could cause us to fail to meet agreed standards of service, incentive and reliability targets, or be in breach of a licence, approval, regulatory requirement or contractual obligation. Even incidents that do not amount to a breach could result in adverse regulatory and financial consequences, as well as harming our reputation.

Where demand for electricity or gas exceeds supply, including where we do not adequately forecast and respond to disruptions in energy supplies, and our balancing mechanisms are not able to mitigate this fully, a lack of supply to consumers may damage our reputation.

In addition to these risks, we may be affected by other potential events that are largely outside our control, weather (including as a result of climate change and major storms), unlawful or unintentional acts of third parties, insufficient or unreliable supply, or force majeure.

Weather conditions can affect financial performance, and severe weather that causes outages or damages infrastructure, together with our actual or perceived response, could materially adversely affect operational and potentially business performance and our reputation.

Malicious attack, sabotage or other intentional acts, including breaches of our cyber security, may also damage our assets (which include critical national infrastructure) or otherwise significantly affect corporate activities and, as a consequence, have a material adverse impact on our reputation, business, results of operations and financial condition.

Unauthorised access to, or deliberate breaches of, our IT systems may also lead to manipulation of our proprietary business data or customer information. Unauthorised access to private customer information may make us liable for a violation of data privacy regulations. Even where we establish business continuity controls and security against threats to our systems, these may not be sufficient.

Pandemics and epidemics

We face risks related to health epidemics and other outbreaks.

As seen in the context of COVID-19, pandemics and their associated counter-measures may affect countries, communities, supply chains and markets, including the UK and our service territory in the US. The spread of such pandemics could have adverse effects on our workforce, which could affect our ability to maintain our networks and provide service. In addition, disruption of supply chains could adversely affect our systems or networks.

Pandemics can also result in extraordinary economic circumstances in our markets which could negatively affect our customers' ability to pay our invoices in the US or the charges payable to the system operators for transmission services in the UK. Measures such as the suspension of debt collection and customer termination activities across our service area in response to such pandemics are likely to result in near-term lower customer collections, and could result in increasing levels of bad debt and associated provisions.

The extent to which pandemics may affect our liquidity, business, financial condition, results of operations and reputation will depend on future developments, which are highly uncertain and cannot be predicted. This will depend on the severity of the relevant pandemic, the scope, duration, cost to National Grid and overall economic impact of actions taken to contain it or treat its effects.

Business performance

Current and future business performance may not meet our expectations or those of our regulators and shareholders.

Earnings maintenance and growth from our regulated gas and electricity businesses will be affected by our ability to meet or exceed efficiency targets and service quality standards set by, or agreed with, our regulators.

If we do not meet these targets and standards, or if we are not able to deliver our rate plans strategy successfully, we may not achieve the expected benefits, our business may be materially adversely affected and our performance, results of operations and reputation may be materially harmed and we may be in breach of regulatory or contractual obligations.

Growth and business development activity

Failure to respond to external market developments and execute our growth strategy may negatively affect our performance. Conversely, new businesses or activities that we undertake alone or with partners may not deliver target outcomes and may expose us to additional operational and financial risk.

Failure to grow our core business sufficiently and have viable options for new future business over the longer term, or failure to respond to the threats and opportunities presented by emerging technology or innovation (including for the purposes of adapting our networks to meet the challenges of increasing distributed energy resources), could negatively affect the Group's credibility and reputation and jeopardise the achievement of intended financial returns.

Our business development activities, including the NGED acquisition, the NECO sale, the NGT sale and the delivery of our growth ambition, involve acquisitions, disposals, joint ventures, partnering and organic investment opportunities, such as development activities relating to changes to the energy mix and the integration of distributed energy resources and other advanced technologies. These are subject to a wide range of both external uncertainties (including the availability of potential investment targets and attractive financing and the impact of competition for onshore transmission in both the UK and US) and internal uncertainties (including actual performance of our existing operating companies and our business planning model assumptions and ability to integrate acquired businesses effectively). As a result, we may suffer unanticipated costs and liabilities and other unanticipated effects.

We may also be liable for the past acts, omissions or liabilities of companies or businesses we have acquired, which may be unforeseen or greater than anticipated. In the case of joint ventures, we may have limited control over operations and our joint venture partners may have interests that diverge from our own.

The occurrence of any of these events could have a material adverse impact on our results of operations or financial condition, and could also impact our ability to enter into other transactions.

Financing and liquidity

An inability to access capital markets at commercially acceptable interest rates could affect how we maintain and grow our businesses.

Our businesses are financed through cash generated from our ongoing operations, bank lending facilities and the capital markets, particularly the bond markets.

Most of the debt we issue is rated by credit rating agencies, and changes to these ratings may affect both our borrowing capacity and borrowing costs. In addition, restrictions imposed by regulators may also limit how we service the financial requirements of our current businesses or the financing of newly acquired or developing businesses.

Financial markets can be subject to periods of volatility and shortages of liquidity, for example as a result of unexpected political or economic events, pandemics or the conflict in Ukraine. If we were unable to access the capital markets or other sources of finance at commercially acceptable rates for a prolonged period, our cost of financing may increase, the discretionary and uncommitted elements of our proposed capital investment programme may need to be reconsidered and the manner in which we implement our strategy may need to be reassessed.

Such events could have a material adverse impact on our business, results of operations and prospects.

Some of our regulatory agreements impose lower limits for the long-term unsecured debt credit ratings that certain companies within the Group must hold or the amount of equity within their capital structures, including a limit requiring the company to hold an investment-grade long-term senior unsecured debt credit rating.

In addition, some of our regulatory arrangements impose restrictions on the way we can operate. These include regulatory requirements for us to maintain adequate financial resources within certain parts of our operating businesses and may restrict the ability of National Grid plc and some of our subsidiaries to engage in certain transactions, including paying dividends, lending cash and levying charges.

The inability to meet such requirements, or the occurrence of any such restrictions, may have a material adverse impact on our business and financial condition.

Our debt agreements and banking facilities contain covenants, including those relating to the periodic and timely provision of financial information by the issuing entity, restrictions on disposals and financial covenants, such as restrictions on the level of subsidiary indebtedness.

Failure to comply with these covenants, or to obtain waivers of those requirements, could in some cases trigger a right, at the lender's discretion, to require repayment of some of our debt and may restrict our ability to draw upon our facilities or access the capital markets.

Exchange rates, interest rates and commodity price indices

Changes in foreign currency rates, interest rates or commodity prices could materially impact earnings or our financial condition.

We have significant operations in the US and are therefore subject to the exchange rate risks normally associated with non-UK operations, including the need to translate US assets, liabilities, income and expenses into sterling (our reporting currency).

In addition, our results of operations and net debt position may be affected because a significant proportion of our borrowings, derivative financial instruments and commodity contracts are affected by changes in interest rates, commodity price indices and exchange rates, in particular the dollar-to-sterling exchange rate.

Furthermore, our cash flow may be materially affected as a result of settling hedging arrangements entered into to manage our exchange rate, interest rate and commodity price exposure, or by cash collateral movements relating to derivative market values, which also depend on the sterling or US dollar exchange rate into the euro and other currencies.

Post-retirement benefits

We may be required to make significant contributions to fund pension and other post-retirement benefits.

We participate in a number of pension schemes that together cover substantially all our employees. In both the UK and US, such schemes include various large defined benefit schemes where the scheme assets are held independently of our own financial resources.

In the US, we also have other post-retirement benefit schemes. Estimates of the amount and timing of future funding for the UK and US schemes are based on actuarial assumptions and other factors, including: the actual and projected market performance of the scheme assets; future long-term bond yields; average life expectancies; and relevant legal requirements.

Actual performance of scheme assets may be affected by volatility in debt and equity markets.

Changes in these assumptions or other factors may require us to make additional contributions to these pension schemes which, to the extent they are not recoverable under our price controls or state rate plans, could materially adversely affect the results of our operations and financial condition.

Customers, suppliers and counterparties

Customers, suppliers and counterparties may not perform their obligations.

Our operations are exposed to the risk that customers, suppliers, banks and other financial institutions, and others with whom we do business, will not satisfy their obligations, which could materially adversely affect our financial position.

This risk is significant where our subsidiaries have concentrations of receivables from gas and electricity utilities and their affiliates, as well as industrial customers and other purchasers, and may also arise where customers are unable to pay us as a result of increasing commodity prices or adverse economic conditions.

To the extent that counterparties are contracted or physical commodities (gas and electricity) and they experience events that impact their own ability to deliver, we may suffer supply interruption as described in Infrastructure and IT systems on page 226.

In addition, the Company may be impacted by supply chain disruptions and shortages of materials, equipment, labour and other resources that are critical to the Group's business operations, including the delivery of major projects. Long lead times for replacement parts could restrict the availability and delay the construction, maintenance or repair of items that are needed to support the Group's normal operations and may result in prolonged customer outages which could in turn lead of unrecovered costs for such services interruptions. Demand for electric equipment is increasing due to utilities' efforts to meet clean energy goals and in order to prepare for more frequent extreme weather events at a time when manufacturing capacity and supply are decreasing. Prices of materials, equipment, transportation and other resources have increased as a result of these supply chain disruptions and shortages and may furthermore continue to increase as a result of inflation.

There is also a risk to us where we invest excess cash or enter into derivatives and other financial contracts with banks or other financial institutions. Banks that provide us with credit facilities may also fail to perform under those contracts.

Employees and others

We may fail to attract, develop and retain employees with the competencies (including leadership and business capabilities), values and behaviours required to deliver our strategy and vision and ensure they are engaged to act in our best interests.

Our ability to implement our strategy depends on the capabilities and performance of our employees and leadership at all levels of the business. Our ability to implement our strategy and vision may be negatively affected by the loss of key personnel or an inability to attract, integrate, engage and retain appropriately qualified personnel (including people with the skills to help us deliver on our net zero commitments) or if significant disputes arise with our employees.

As a result, there may be a material adverse effect on our business, financial condition, results of operations and prospects.

There is a risk that an employee or someone acting on our behalf may breach our internal controls or internal governance framework, or may contravene applicable laws and regulations. This could have an impact on the results of our operations, our reputation and our relationship with our regulators and other stakeholders.

Index to Directors' Report and other disclosures, as required under the Companies Act 2006

Shareholder information

Articles of Association

The following description is a summary of the material terms of our Articles of Association (Articles) and applicable English law. It is a summary only and is qualified in its entirety by reference to the Articles.

The Articles set out the Company's internal regulations. Copies are available on our website at **nationalgrid.com/corporate-governance** and upon request. Amendments to the Articles have to be approved by at least 75% of those voting at a general meeting of the Company. Subject to company law and the Articles, the Directors may exercise all the powers of the Company. They may delegate authorities and decision making and the day-to-day management to individual Executive Directors and committees on page 68.

General

The Company is incorporated under the name National Grid plc and is registered in England and Wales with registered number 4031152. Under the Companies Act 2006, the Company's objects are unrestricted.

Directors

Under the Articles, a Director must disclose any personal interest in a matter and may not vote in respect of that matter, subject to certain limited exceptions. As permitted under the Companies Act 2006, the Articles allow non-conflicted Directors to authorise a conflict or potential conflict for a particular matter. In doing so, the non-conflicted Directors must act in a way they consider, in good faith, will be most likely to promote the success of the Company for the benefit of the shareholders as a whole.

The Directors (other than a Director acting in an executive capacity) are paid fees for their services. In total, these fees must not exceed £2 million per year or any higher sum decided by an ordinary resolution at a general meeting of shareholders. In addition, special pay may be awarded to a Director who acts in an executive capacity, serves on a committee, performs services which the Directors consider to extend beyond the ordinary duties of a Director, devotes special attention to the business of the Company, or goes or lives abroad on the Company's behalf. Directors may also receive reimbursement for expenses properly incurred, and may be awarded pensions and other benefits. The compensation awarded to the Executive Directors is determined by the Remuneration Committee. Further details of Directors' remuneration are set out in the Directors' Remuneration Report (see pages 94 – 106).

The Directors may exercise all the powers of National Grid to borrow money. However, the aggregate principal amount of all the Group's borrowings outstanding at any time must not exceed £55 billion or any other amount approved by shareholders by an ordinary resolution at a general meeting.

Directors can be appointed or removed by the Board or shareholders at a general meeting. Directors must stand for election at the first AGM following their appointment to the Board and the Articles provide, in line with market practice, that they must be recommended by the Board or the Company must have received written confirmation of their willingness to act as Director. Each Director must retire at least every three years, although they will be eligible for re-election. In accordance with best practice introduced by the UK Corporate Governance Code 2018 (the Code), all Directors wishing to continue in office currently offer themselves for re-election annually. No person is disqualified from being a Director or is required to vacate that office by reason of attaining a maximum age.

A Director is not required to hold shares in National Grid plc in order to qualify as a Director.

Rights, preferences and restrictions

Dividend rights

National Grid may not pay any dividend otherwise than out of profits available for distribution under the Companies Act 2006 and other applicable provisions of English law. In addition, as a public company, the Company may only make a distribution if, at the time of the distribution, the amount of its net assets is not less than the aggregate of its called-up share capital and undistributable reserves (as defined in the Companies Act 2006), and to the extent that the distribution does not reduce the amount of those assets to less than that aggregate. Ordinary shareholders and American Depositary Share (ADS) holders receive dividends.

Subject to these points, shareholders may, by ordinary resolution, declare dividends in accordance with the respective rights of the shareholders, but not exceeding the amount recommended by the Board. The Board may pay interim dividends if it considers that the Company's financial position justifies the payment. Any dividend or interest unclaimed for 12 years from the date when it was declared or became due for payment will be forfeited and revert to the Company, and the Articles clarify that the Company may use such unclaimed dividends for the Company's benefit as the Directors may think fit.

Voting rights

Subject to any rights or restrictions attached to any shares and to any other provisions of the Articles, at any general meeting on a show of hands, every shareholder who is present in person will have one vote and, on a poll, every shareholder will have one vote for every share they hold. On a show of hands or poll, shareholders may cast votes either personally or by proxy. A proxy need not be a shareholder. Under the Articles, all substantive resolutions at a general meeting must be decided on a poll and the Articles further provide that voting on resolutions at a general meeting that is held at least in part using an electronic platform must be decided on a poll. Ordinary shareholders and ADS holders can vote at general meetings.

Liquidation rights

In a winding up, a liquidator may (in each case with the sanction of a special resolution passed by the shareholders and any other sanction required under English law): (1) divide among the shareholders the whole or any part of National Grid's assets (whether the assets are of the same kind or not) – the liquidator may, for this purpose, value any assets and determine how the division should be carried out as between shareholders or different classes of shareholders; or (2) transfer any part of the assets to Trustees on trust for the benefit of the shareholders as the liquidator determines. In neither case will a shareholder be compelled to accept assets upon which there is a liability.

Restrictions

There are no restrictions on the transfer or sale of ordinary shares. Some of the Company's employee share plans, details of which are contained in the Directors' Remuneration Report, include restrictions on the transfer of ordinary shares while the ordinary shares are subject to the plan. Where, under an employee share plan operated by the Company, participants are the beneficial owners of the ordinary shares but not the registered owner, the voting rights may be exercised by the registered owner at the direction of the participant. Treasury shares do not attract a vote or dividends.

Variation of rights

Subject to applicable provisions of English law, the rights attached to any class of shares of National Grid may be varied or cancelled. This must be with the written consent of the holders of three quarters in nominal value of the issued shares of that class, or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class.

General meetings

AGMs must be convened each year within six months of the Company's accounting reference date upon 21 clear days' advance written notice. Under the Articles, any other general meeting may be convened provided at least 14 clear days' written notice is given, subject to annual approval of shareholders. In certain limited circumstances, the Company can convene a general meeting by shorter notice. The notice must specify, among other things, the nature of the business to be transacted and the place, the date and the time of the meeting. The 2023 AGM will be held as a combined physical and electronic meeting. Please ensure you continue to monitor our website at **nationalgrid.com/investors** for any updates to the arrangements for the AGM.

Rights of non-residents

There are no restrictions under the Articles that would limit the rights of persons not resident in the UK to vote in relation to ordinary shares.

Depositary payments to the Company

The Bank of New York Mellon (the Depositary) reimburses the Company for certain expenses it incurs in relation to the ADS programme. The Depositary also pays the standard out-of-pocket maintenance costs for the ADSs, which consist of the expenses for the mailing of annual and interim financial reports, printing and distributing dividend cheques, the electronic filing of US federal tax information, mailing required tax forms, stationery, postage, facsimiles and telephone calls. It also reimburses the Company for certain investor relationship programmes or special investor relations promotional activities. There are limits on the amount of expenses for which the Depositary will reimburse the Company, but the amount of reimbursement is not necessarily tied to the amount of fees the Depositary collects from investors.

For the period 18 May 2022 to 17 May 2023, the Company received a total of $1,659,900.30 in reimbursements from the Depositary consisting of $108,783.00, $1,038,864.75 received on 2 June 2022 and 29 December 2022 respectively. Fees that are charged on cash dividends will be apportioned between the Depositary and the Company.

Any questions from ADS holders should be directed to the Depositary at the contact details on page 259.

Description of securities other than equity securities: Depositary fees and charges

The Depositary collects fees by deducting them from the amounts distributed or by selling a portion of distributable property for:

- delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them; and
- making distributions to investors (including, it is expected, cash dividends).

The Depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

The Company's Deposit agreement under which the ADSs are issued allows a fee of up to $0.05 per ADS to be charged for any cash distribution made to ADS holders, including cash dividends. ADS holders who receive cash in relation to the 2022/23 final dividend will be charged a fee of $0.02 per ADS by the Depositary prior to distribution of the cash dividend.

Persons depositing or withdrawing shares must pay:	For:
$5.00 per 100 ADSs (or portion of 100 ADSs)	Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property; cancellation of ADSs for the purpose of withdrawal, including if the Deposit agreement terminates; and distribution of securities distributed to holders of deposited securities that are distributed by the Depositary to ADS holders.
Registration or transfer fees	Transfer and registration of shares on our share register to or from the name of the Depositary or its agent when they deposit or withdraw shares.
Expenses of the Depositary	Cable, telex and facsimile transmissions (when expressly provided in the Deposit agreement); and converting foreign currency to dollars.
Taxes and other governmental charges the Depositary or the Custodian has to pay on any ADS or share underlying an ADS, for example stock transfer taxes, stamp duty or withholding taxes	As necessary.

Documents on display

National Grid is subject to the US Securities and Exchange Commission (SEC) reporting requirements for foreign companies. The Company's Form 20-F and other filings can be viewed on the website as well and the SEC website at sec.gov.

Events after the reporting period

There were no events after the reporting period.

Exchange controls

There are currently no UK laws, decrees or regulations that restrict the export or import of capital, including, but not limited to, foreign exchange control restrictions, or that affect the remittance of dividends, interest or other payments to non-UK resident holders of ordinary shares except as otherwise set out in Taxation on pages 233 and 234 and except in respect of the governments of and/or certain citizens, residents or bodies of certain countries (described in applicable Bank of England Notices or European Union Council Regulations in force as at the date of this document).

Share information

National Grid ordinary shares are listed on the London Stock Exchange under the symbol NG. The ADSs are listed on the New York Stock Exchange under the symbol NGG.

As at 17 May 2023, the share capital of the Company consists of ordinary shares of 12 204/473 pence nominal value each and ADSs, which represent five ordinary shares each.

Disclosure of interests

Under the Companies Act 2006, National Grid may, by written notice, require a person whom it has reasonable cause to believe to be or to have been, in the last three years, interested in its shares to provide additional information relating to that interest. Under the Articles, failure to provide such information may result in a shareholder losing their rights to attend, vote or exercise any other right in relation to shareholders' meetings.

Other than as stated below as far as we are aware, there are no persons with significant direct or indirect holdings in the Company. Information provided pursuant to FCA's Disclosure Guidance and Transparency Rules (DTR) is published on the Regulatory Information Service and on the Company's website.

The UK City Code on Takeovers and Mergers imposes strict disclosure requirements regarding dealings in the securities of an offeror or offeree company, and also on their respective associates, during the course of an offer period. Other regulators in the UK, US and elsewhere may have, or assert, notification or approval rights over acquisitions or transfers of shares.

Material interests in shares

As at 31 March 2023, National Grid plc had received notice, under the DTRs, in respect of the following holdings of 3% or more of the voting rights in its issued ordinary share capital:

	Number of ordinary shares	% of voting rights[1]	Date of last notification of interest
BlackRock, Inc.	255,529,542	7.04	6 December 2021
The Capital Group Companies, Inc.	182,521,721	4.99	8 September 2022

1. This number is calculated in relation to the issued share capital at the time the holding was disclosed.

As at 17 May 2023, no further notifications have been received.

The rights attached to ordinary shares are detailed on page 228. All ordinary shares and all major shareholders have the same voting rights. The Company is not, to the best of its knowledge, directly or indirectly controlled.

Authority to purchase shares

Shareholder approval was given at the 2022 AGM to purchase up to 10% of the Company's share capital (being 364,670,529 ordinary shares). The Directors will seek shareholder approval to renew this authority at the 2023 AGM.

In some circumstances, the Company may find it advantageous to have the authority to purchase its own shares in the market, where the Directors believe this would be in the interests of shareholders generally. The Directors believe that it is an important part of the financial management of the Company to have the flexibility to repurchase issued shares to manage its capital base, including actively managing share issuances from the operation of the scrip dividend scheme. It is expected that repurchases to manage share issuances under the scrip dividend scheme will not exceed 2.5% of the issued share capital (excluding treasury shares) per annum.

When purchasing shares, the Company has taken, and will continue to take, into account market conditions prevailing at the time, other investment and financing opportunities, and the overall financial position of the Company.

At the 2022 AGM, the Company sought authority to purchase ordinary shares in the capital of the Company as part of the management of the dilutive effect of share issuances under the scrip dividend scheme. During the year, the Company did not purchase any of its own shares.

	Number of shares	Total nominal value	% of called up share capital
Shares held in Treasury purchased in prior years[1]	259,131,220	£32,213,352.51[2]	6.64[1]
Shares purchased and held in Treasury during the year	–	–	–
Shares transferred from Treasury during the year (to employees under employee share plans)	5,282,293	£656,657.14	0.13[3]
Maximum number of shares held in Treasury during the year[4]	259,131,220	£32,213,352.51[2]	6.59[3]

1. Called-up share capital: 3,904,074,348 ordinary shares as at 31 March 2022.
2. Nominal value: 12 204/473 pence per ordinary share.
3. Called-up share capital: 3,930,371,661 ordinary shares as at the date of this report.
4. Maximum number of shares held in Treasury during the year as at 31 March 2023.

As at 17 May 2023, the Company held 252,193,931 ordinary shares as treasury shares. This represented 6.42% of the Company's called-up share capital.

Authority to allot shares

Shareholder approval was given at the 2022 AGM to allot shares of up to one third of the Company's share capital. The Directors are seeking this same level of authority this year. The Directors consider that the Company will have sufficient flexibility with this level of authority to respond to market developments and that this authority is in line with investor guidelines.

The Directors currently have no intention of issuing new shares or of granting rights to subscribe for or convert any security into shares. This is except in relation to, or in connection with, the operation and management of the Company's scrip dividend scheme and the exercise of options under the Company's share plans. No issue of shares will be made that would effectively alter control of the Company without the sanction of shareholders in a general meeting.

The Company expects to actively manage the dilutive effect of share issuance arising from the operation of the scrip dividend scheme. In some circumstances, additional shares may be allotted to the market for this purpose under the authority provided by this resolution. Under these circumstances, it is expected that the associated allotment of new shares (or rights to subscribe for or convert any security into shares) will not exceed 1% of the issued share capital (excluding treasury shares) per annum.

Dividend waivers

The Trustee of the National Grid Employee Share Trust, which is independent of the Company, waived the right to dividends paid during the year. They have also agreed to waive the right to future dividends, in relation to the ordinary shares and ADSs held by the trust.

Under the Company's ADS programme, the right to dividends in relation to the ordinary shares underlying the ADSs was waived during the year, under an arrangement whereby the Company pays the monies to satisfy any dividends separately to the Depositary for distribution to ADS holders entitled to the dividend. This arrangement is expected to continue for future dividends.

Shareholder analysis

The following table includes a brief analysis of shareholder numbers and shareholdings as at 31 March 2023:

	Number of shareholders	% of shareholders[1]	Number of shares	% of shares[1]
1 – 50	133,094	19.78	4,157,136	0.11
51 – 100	169,101	25.13	11,896,842	0.30
101 – 500	288,283	42.84	60,682,474	1.54
501 – 1,000	41,714	6.11	28,569,926	0.73
1,001 – 10,000	38,696	5.75	94,664,166	2.41
10,001 – 50,000	1,576	0.23	29,140,980	0.74
50,001 – 100,000	200	0.03	14,322,138	0.36
100,001 – 500,000	450	0.07	106,989,883	2.72
500,001 – 1,000,000	126	0.02	91,290,722	2.32
1,000,001+	302	0.04	3,488,657,394	88.76
Total	672,939	100	3,930,371,661	100

1. Percentages have been rounded to two decimal places.

Taxation

This section provides information about certain US federal income tax and UK tax consequences for US Holders (defined below) of owning ADSs and ordinary shares. A US Holder is the beneficial owner of ADSs or ordinary shares who:

- is for US federal income tax purposes (1) an individual citizen or resident of the US; (2) a corporation created or organised under the laws of the US, any state thereof or the District of Columbia; (3) an estate, the income of which is subject to US federal income tax without regard to its source; or (4) a trust, if a court within the US is able to exercise primary supervision over the administration of the trust and one or more US persons have the authority to control all substantial decisions of the trust, or the trust has elected to be treated as a domestic trust for US federal income tax purposes;
- is not resident in the UK for UK tax purposes; and
- does not hold ADSs or ordinary shares in connection with the conduct of a business or the performance of services in the UK or otherwise in connection with a branch, agency or permanent establishment in the UK.

This section is not a comprehensive description of all the US federal income tax and UK tax considerations that may be relevant to any particular investor (including consequences under the US alternative minimum tax or net investment income tax). Neither does it address state, local or other tax laws. National Grid has assumed that shareholders, including US Holders, are familiar with the tax rules applicable to investments in securities generally and with any special rules to which they may be subject. This discussion deals only with US Holders who hold ADSs or ordinary shares as capital assets. It does not address the tax treatment of investors who are subject to special rules. Such investors may include:

- financial institutions;
- insurance companies;
- dealers in securities or currencies;
- investors who elect mark-to-market treatment;
- entities treated as partnerships or other pass-through entities and their partners;
- individual retirement accounts and other tax-deferred accounts;
- tax-exempt organisations;
- investors who own (directly or indirectly) 10% or more of our shares (by vote or value);
- investors who hold ADSs or ordinary shares as a position in a straddle, hedging transaction or conversion transaction;
- individual investors who have ceased to be resident in the UK for a period of five years or less;
- persons who have ceased to be US citizens or lawful permanent residents of the US; and
- US Holders whose functional currency is not the US dollar.

The statements regarding US and UK tax laws and administrative practices set forth below are based on laws, treaties, judicial decisions and regulatory interpretations that were in effect on the date of this document. These laws and practices are subject to change without notice, potentially with retroactive effect. In addition, the statements set forth below are based on the representations of the Depositary and assume that each party to the Deposit agreement will perform its obligations thereunder in accordance with its terms.

US Holders of ADSs generally will be treated as the owners of the ordinary shares represented by those ADSs for US federal income tax purposes. For the purposes of the Tax Convention, the Estate Tax Convention and UK tax considerations, this discussion assumes that a US Holder of ADSs will be treated as the owner of the ordinary shares represented by those ADSs. HMRC has stated that it will continue to apply its long-standing practice of treating a holder of ADSs as holding the beneficial interest in the ordinary shares represented by the ADSs; however, we note that this is an area of some uncertainty and may be subject to change.

US Holders should consult their own advisors regarding the tax consequences of buying, owning and disposing of ADSs or ordinary shares depending on their particular circumstances, including the effect of any state, local or other tax laws.

Taxation of dividends

The UK does not currently impose a withholding tax on dividends paid to US Holders.

US Holders should assume that any cash distribution paid by the Depositary for ADSs with respect to ADSs or ordinary shares will be reported as dividend income for US federal income tax purposes. While dividend income received from non-US corporations is generally taxable to a non-corporate US Holder as ordinary income for US federal income tax purposes, dividend income received by a non-corporate US Holder from us generally will be taxable at the same favourable rates applicable to long-term capital gains provided (1) either: (a) we are eligible for the benefits of the Tax Convention or (b) ADSs or ordinary shares are treated as 'readily tradable' on an established securities market in the US; and (2) we are not, for our taxable year during which the dividend is paid or the prior year, a passive foreign investment company for US federal income tax purposes, and certain other requirements are met. We expect that our shares will be treated as 'readily tradable' on an established securities market in the US as a result of the trading of ADSs on the New York Stock Exchange (NYSE). We also believe we are eligible for the benefits of the Tax Convention.

Based on our audited financial statements and the nature of our business activities, we believe that we were not treated as a Passive Foreign Investment Company (PFIC) for US federal income tax purposes with respect to our taxable year ended 31 March 2023. In addition, based on our current expectations regarding the value and nature of our assets, the sources and nature of our income and the nature of our business activities, we do not anticipate becoming a PFIC in the foreseeable future.

Dividends received by corporate US Holders with respect to ADSs or ordinary shares will not be eligible for the dividends-received deduction that is generally allowed to corporations.

Taxation of capital gains

Subject to specific rules relating to assets that derive at least 75% of their value from UK land, US Holders will not be subject to UK taxation on any capital gain realised on the sale or other disposition of ADSs or ordinary shares.

Provided that we are not a PFIC for any taxable year during which a US Holder holds their ADSs or ordinary shares, upon a sale or other disposition of ADSs or ordinary shares, a US Holder generally will recognise a capital gain or loss for US federal income tax purposes that is equal to the difference between the US dollar value of the amount realised on the sale or other disposition and the US Holder's adjusted tax basis in the ADSs or ordinary shares. Such capital gain or loss generally will be long-term capital gain or loss if the ADSs or ordinary shares were held for more than one year. For non-corporate US Holders, long-term capital gain is generally taxed at a lower rate than ordinary income. A US Holder's ability to deduct capital losses is subject to significant limitations.

US information reporting and backup withholding tax

Dividend payments made to US Holders and proceeds paid from the sale, exchange, redemption or disposal of ADSs or ordinary shares to US Holders may be subject to information reporting to the US Internal Revenue Service. Such payments may be subject to backup withholding taxes if the US Holder fails to provide an accurate taxpayer identification number or certification of exempt status or fails to comply with applicable certification requirements.

US Holders should consult their tax advisors about these rules and any other reporting obligations that may apply to the ownership or disposition of ADSs or ordinary shares. Such obligations include reporting requirements related to the holding of certain foreign financial assets.

UK stamp duty and stamp duty reserve tax (SDRT)

Transfers of ordinary shares

SDRT at the rate of 0.5% of the amount or value of the consideration will generally be payable on any agreement to transfer ordinary shares that is not completed using a duly stamped instrument of transfer (such as a stock transfer form).

The SDRT liability will be cancelled where an instrument of transfer is executed and duly stamped before the expiry of the six-year period beginning with the date on which the agreement is made. If a claim is made within the specified period, any SDRT which has been paid will be refunded. SDRT is due whether or not the agreement or transfer is made or carried out in the UK and whether or not any party to that agreement or transfer is a UK resident.

Purchases of ordinary shares completed using a stock transfer form will generally result in a UK stamp duty liability at the rate of 0.5% (rounded up to the nearest £5) of the amount or value of the consideration. Paperless transfers under the CREST paperless settlement system will generally be liable to SDRT at the rate of 0.5%, and not stamp duty. SDRT is generally the liability of the purchaser, and UK stamp duty is usually paid by the purchaser or transferee.

Transfers of ADSs

No UK stamp duty will be payable on the acquisition or transfer of existing ADSs or beneficial ownership of ADSs (in each case in the form of ADRs), provided that any instrument of transfer or written agreement to transfer is executed outside the UK and remains at all times outside the UK.

An agreement for the transfer of ADSs in the form of ADRs will not result in an SDRT liability. A charge to stamp duty or SDRT may arise on the transfer of ordinary shares to the Depositary or The Bank of New York Mellon as agent of the Depositary (the 'Custodian').

The rate of stamp duty or SDRT will generally be 1.5% of the value of the consideration or, in some circumstances, the value of the ordinary shares concerned. However, there is no 1.5% SDRT charge on the issue of ordinary shares (or, where it is integral to the raising of new capital, the transfer of ordinary shares) to the Depositary or the Custodian.

The Depositary will generally be liable for the stamp duty or SDRT. Under the terms of the Deposit agreement, the Depositary will charge any tax payable by the Depositary or the Custodian (or their nominees) on the deposit of ordinary shares to the party to whom the ADSs are delivered against such deposits. If the stamp duty is not a multiple of £5, the duty will be rounded up to the nearest multiple of £5.

UK inheritance tax

An individual who is domiciled in the US for the purposes of the Estate Tax Convention and who is not a UK national for the purposes of the Estate Tax Convention will generally not be subject to UK inheritance tax in respect of 1) the ADSs or ordinary shares on the individual's death or 2) a gift of the ADSs or ordinary shares during the individual's lifetime. This is not the case where the ADSs or ordinary shares are part of the business property of the individual's permanent establishment in the UK or relate to a fixed base in the UK of an individual who performs independent personal services.

Special rules apply to ADSs or ordinary shares held in trust.

In the exceptional case where the ADSs or shares are subject both to UK inheritance tax and to US federal gift or estate tax, the Estate Tax Convention generally provides for the tax paid in the UK to be credited against tax paid in the US or vice versa.

Capital gains tax (CGT) for UK resident shareholders

You can find CGT information relating to National Grid shares for UK resident shareholders on the Investors section of our website. Share prices on specific dates are also available on our website.

Other disclosures

All-employee share plans

The Company has a number of all-employee share plans as described below, which operated during the year. These allow UK- or US-based employees to participate in tax-advantaged plans and to become shareholders in National Grid.

UK Sharesave

UK employees are eligible to participate in the Sharesave Plan. Under this plan, participants may contribute between £5 and £500 each month, for a fixed period of three years, five years or both. Contributions are taken from net salary. At the end of the fixed period, participants may use their savings to purchase ordinary shares in National Grid plc at a 20% discounted option price, which is set at the time of each Sharesave launch.

UK Share Incentive Plan (SIP)

UK employees are eligible to participate in the SIP. Contributions up to £150 per month are deducted from participants' gross salary and used to purchase National Grid plc ordinary shares each month. The shares are placed in a UK resident trust and are available to the individual with tax advantages after a five-year period.

US Employee Stock Purchase Plan (ESPP)

Employees of National Grid's participating US companies are eligible to participate in the ESPP (commonly referred to as a 423b plan). Eligible employees have the opportunity to purchase ADSs in National Grid on a monthly basis at a 15% discounted price. Under the plan, employees may contribute up to 20% of base pay each year, up to a maximum annual contribution of $25,000, to purchase ADSs.

US Incentive Thrift Plan

The Thrift Plan is open to all US employees of participating National Grid companies; this is a tax-advantaged savings plan (commonly referred to as a 401(k) plan). This is a defined contribution (DC) pension plan that gives participants the opportunity to invest up to applicable federal salary limits. The federal limits for calendar year 2022 were: for pre-tax contributions or Roth 401(k) after tax contributions, a maximum of 50% of salary limited to $20,500 for those under the age of 50 and $27,000 for those aged 50 and above; and for post-tax contributions, up to 15% of salary. The total amount of employee contributions (pre tax, Roth 401(k) and after tax) could not exceed 50% of compensation. The total amount of employee and employer contributions collectively were subject to the federal annual contribution limit of $61,000 for those under the age of 50 and $67,500 for those aged 50 and above. For the calendar year 2023, participants may invest up to the applicable federal salary limits: for pre-tax contributions or Roth 401(k) after tax contributions, this is a maximum of 50% of salary limited to $22,500 for those under the age of 50 and $30,000 for those aged 50 and above; for post-tax contributions, this is up to 15% of salary. The total amount of employee contributions (pre tax, Roth 401(k) and after tax) could not exceed 50% of compensation. The total amount of employee and employer contributions collectively were subject to the federal annual contribution limit of $66,000 for those under the age of 50 and $73,500 for those aged 50 and above. New contributions or exchanges into the National Grid ADR Fund within the plan is limited to 20% of a participant's account balance.

Change of control provisions

No compensation would be paid for loss of office of Directors on a change of control of the Company. As at 31 March 2023, the Company had borrowing facilities of £5.0 billion available to it with a number of banks, which, on a change of control of the Company following a takeover bid, may alter or terminate. Of the facilities, £0.1 billion was drawn as at 31 March 2023. All of the Company's share plans contain provisions relating to a change of control. Outstanding awards and options would normally vest and become exercisable on a change of control, subject to the satisfaction of any performance conditions at that time. In the event of a change of control of the Company, a number of governmental and regulatory consents or approvals are likely to be required, arising from laws or regulations of the UK or the US. Such consents or approvals may also be required for acquisitions of equity securities that do not amount to a change of control.

No other agreements that take effect, alter or terminate upon a change of control of the Company following a takeover bid are considered to be significant in terms of their potential impact on the business as a whole.

Code of Ethics

In accordance with US legal requirements, the Board has adopted a Code of Ethics. The Code of Ethics is available on our website (where any amendments or waivers will also be posted). There were no amendments to, or waivers of, our Code of Ethics during the year.

Conflicts of interest

In accordance with the Companies Act 2006, the Board has a policy and procedure in place for the disclosure and authorisation (if appropriate) of actual and potential conflicts of interest. The Board continues to monitor and note possible conflicts of interest that each Director may have, including a review on appointment. The Directors are regularly reminded of their continuing obligations in relation to conflicts, and are required to review and confirm their external interests annually.

Corporate governance practices: differences from NYSE listing standards

The Company is listed on the NYSE and is therefore required to disclose differences in its corporate governance practices adopted as a UK listed company, compared with those of a US company. The corporate governance practices of the Company are primarily based on the requirements of the Code but substantially conform to those required of US companies listed on the NYSE.

The following is a summary of the significant ways in which the Company's corporate governance practices differ from those followed by US companies under section 303A of the Corporate Governance Standards of the NYSE.

The NYSE rules and the Code apply different tests for the independence of Board members.

The NYSE rules require a separate nominating/corporate governance committee composed entirely of independent directors. There is no requirement for a separate corporate governance committee in the UK. Under the Company's corporate governance policies, all Directors on the Board discuss and decide upon governance issues, and the People & Governance Committee makes recommendations to the Board with regard to certain responsibilities of a corporate governance committee.

The NYSE rules require listed companies to adopt and disclose corporate governance guidelines. While the Company reports compliance with the Code in each Annual Report and Accounts, the UK requirements do not require the Company to adopt and disclose separate corporate governance guidelines.

The NYSE rules require a separate audit committee composed of at least three independent members. While the Company's Audit & Risk Committee exceeds the NYSE's minimum independent Non-executive Director membership requirements, it should be noted that the quorum for a meeting of the Audit & Risk Committee, of two independent Non-executive Directors, is less than the minimum membership requirements under the NYSE rules.

The NYSE rules require a compensation committee composed entirely of independent directors, and prescribe criteria to evaluate the independence of the committee's members and its ability to engage external compensation advisors. While the Code prescribes different independence criteria, the Non-executive Directors on the Company's Remuneration Committee have each been deemed independent by the Board under the NYSE rules. Although the evaluation criteria for appointment of external advisors differ under the Code, the Remuneration Committee is solely responsible for the appointment, retention and termination of such advisors.

Directors' indemnity & Directors' and Officers' Liability insurance

The Company has arranged, in accordance with the Companies Act 2006 and the Articles, qualifying third-party indemnities against financial exposure that Directors may incur in the course of their professional duties. Equivalent qualifying third-party indemnities were, and remain, in force for the benefit of those Directors who stood down from the Board in prior financial years for matters arising when they were Directors of the Company. Alongside these indemnities, the Company places Directors' and Officers' liability insurance cover for each Director. To the extent appropriate and required, similar indemnities have also been given to Directors of subsidiary and other associated companies, who also benefit from Directors' and Officers' liability insurance cover.

Employees

We negotiate with recognised unions. It is our policy to maintain well-developed communications and consultation programmes and there have been no material disruptions to our operations from labour disputes during the past three years. National Grid believes that it can conduct its relationships with trade unions and employees in a satisfactory manner. Further details on the Company's colleagues can be found on page 34.

Human rights

We launched our RBC in October 2020 focusing on five key areas. One of the areas is our people and our commitment to ensuring all our people are treated fairly and given the opportunity to thrive at work. As a responsible, purpose-led company, the way in which we conduct ourselves allows us to build trust with the people we work with by doing things in the right way, building our reputation as a responsible and ethical company that our stakeholders want to do business with and our employees want to work for.

Our employees are at the heart of what we do, which is why we're one of 167 companies that participated in the 2022 Workforce Disclosure Initiative (WDI). National Grid have completed the WDI survey for the past three years and we continue to enhance our data year-on-year obtaining a scorecard of 84% overall for our 2022 submission, above the Utilities sector average. We obtained 100% in a number of key sections including Supply Chain Transparency, Responsible Sourcing and Supply Chain Working Conditions and received a special mention in the 'Workforce action' category at the WDI 2022 Workforce Transparency Awards in February 2023.

National Grid does not have direct operations in countries of high concern with respect to human rights and we currently do not have a specific policy relating to human rights. However, respect for human rights is incorporated into our employment practices and our values and our approach to addressing potential human rights risks is detailed in our Modern Slavery Statement, which can be found on our website. We treat everyone fairly and equally, without discrimination. Respecting others and valuing DEI are integral to our Code of Ethics and we provide unconscious bias training to all our people to build awareness of cultural differences and the importance of diversity, and the necessity of achieving equity and inclusion. Our Global Supplier Diversity Policy outlines our commitments and expectation that DEI is embedded in all aspects of business in our supply chain.

We acknowledge that there may be potential risks in our wider supply chain, and we recognise that the relationship we have with our suppliers can influence how they support our commitment to acting responsibly.

We produce an annual Modern Slavery Statement which outlines the actions we take to assess potential risk in our wider operations and take actions to address this. This includes working collaboratively in the sector through a number of membership organisations to build awareness and capability in the supply chain. We publish our Statement on the Home Office modern slavery registry and encourage our suppliers to publish a Statement on modern slavery regardless of whether this is a legal obligation to do so.

We have engaged with Churches, Charities and Local Authorities (CCLA) Investment Management Limited, which established 'Find it, Fix it, Prevent it' as a collaborative investor engagement programme with the aim to use the leverage of investors to help companies 'find, fix and prevent' modern slavery in their supply chain. In 2022, we provided feedback on CCLA's approach to developing a benchmarking report of the FTSE 100 companies and we welcomed the plans to publish the report to improve corporate engagement and drive positive change.

We are signatories to the UK Construction Protocol, which is a joint agreement with many of the largest firms in the UK construction sector focused on eradicating modern slavery and exploitation in the building industry. We are also founding signatory members of the People Matter Charter which was created to help organisations up and down the supply chain to bring challenges related to decent work together into one workforce strategy. The Charter has eight commitments that can apply to any organisation of any size including aspects supporting human rights.

We are members of the United Nations Global Compact (UNGC) Modern Slavery Working Group and take part in a peer review of our Modern Slavery Statement to share best practice and identify areas for improvement. We are actively involved in Utilities Against Slavery, which is a collaborative initiative governed by the non-governmental organisation Slave-Free alliance aimed at working together to eradicate slavery and exploitation in the UK utilities sector and its supply chains. Through this we continue to work with the Supply Chain Sustainability School to deliver a training and awareness to our shared network of suppliers.

We aim to maintain fairness across the organisation for pay and make sure our pay practices do not show bias. In the US, we pay all our employees at least the minimum wage or above the minimum wage requirements. In the UK, we are accredited Living Wage Foundation employers. Our commitment to our direct employees extends to our contractors and the work they do on behalf of National Grid and is actively promoted through our supply chain and embedded in our contract terms and conditions and contract management discussions. We believe that everyone should be appropriately rewarded for their time and effort. We also go above the Living Wage Foundation accreditation requirements and voluntarily pay our trainees/apprentices the real Living Wage. We undertake a real Living Wage review and produce a report to the Living Wage Foundation each year to ensure continued alignment. This includes an increase to individual internal salaries as required and annual communication of the new real Living Wage rates to our supply chain. We include a review of implementation of the real Living Wage in supply chain contracts where low wages could be a risk, including our catering, cleaning, waste management and main construction contracts.

Our Supplier Code of Conduct is updated and communicated to our suppliers annually and clearly sets out our expectations to share our commitment to respecting, protecting and promoting human rights. This includes alignment to the UN Guiding Principles, the 10 Principles of the UNGC, the International Labour Organization (ILO) minimum standards, the Ethical Trading Initiative (ETI) Base Code, the UK Modern Slavery Act 2015, the US Victims of Trafficking and Violence Protection Act 2000, the US Department of State Guiding Principles to Combat Human Trafficking and, for our UK suppliers, the requirements of the Living Wage Foundation.

Unresolved SEC staff comments

There are no unresolved SEC staff comments required to be reported.

Property, plant, equipment and borrowings

This information can be found in note 13 to the financial statements (Property, plant and equipment) on pages 157 – 159, and note 21 Borrowings on pages 169 – 171.

Listing Rule 9.8.4 R cross-reference table

Information required to be disclosed by LR 9.8.4 R (starting on page indicated):

Interest capitalised	Page 143
Publication of unaudited financial information	Not applicable
Details of long-term incentive schemes	Pages 100, 101 and 182
Waiver of emoluments by a Director	Not applicable
Waiver of future emoluments by a Director	Not applicable
Non-pre-emptive issues of equity for cash	Not applicable
Item (7) in relation to major subsidiary undertakings	None
Parent participation in a placing by a listed subsidiary	Not applicable
Contracts of significance	Page 237
Provision of services by a controlling shareholder	Not applicable
Shareholder waivers of dividends	Page 232
Shareholder waivers of future dividends	Page 232
Agreements with controlling shareholders	Not applicable

Political donations and expenditure

At this year's AGM, the Directors will again seek authority from shareholders, on a precautionary basis, for the Company and its subsidiaries to make donations to registered political parties and other political organisations and/or incur political expenditure as such terms are defined in the Companies Act 2006. In each case, donations will be in amounts not exceeding £125,000 in aggregate. The definitions of these terms in the Companies Act 2006 are very wide. As a result, this can cover bodies such as those concerned with policy review, law reform and the representation of the business community (for example trade organisations). It could include special interest groups, such as those involved with the environment, which the Company and its subsidiaries might wish to support, even though these activities are not designed to support or influence support for a particular party. The Companies Act 2006 states that all-party parliamentary groups are not political organisations for these purposes, meaning the authority to be sought from shareholders is not relevant to interactions with such groups. The Company has no intention of changing its current practice of not making political donations or incurring political expenditure within the ordinary meaning of those words. This authority is, therefore, being sought to ensure that none of the Company's activities inadvertently infringe these rules.

National Grid made no political donations and did not incur any political expenditure during the year, as such terms are defined for the purposes of the Companies Act 2006 and the Political Parties, Elections and Referendums Act 2000. National Grid US's affiliated New York and federal political action committees (PAC) made political donations in the US totalling $54,550 during the year. National Grid US's affiliated New York PAC (NYPAC) was funded partly by contributions from National Grid US and certain of its subsidiaries and partly by voluntary employee contributions. National Grid US's affiliated federal PAC was funded wholly by voluntary employee contributions. The NYPAC did not receive any corporate contribution during the past fiscal year.

Material contracts

On 14 June 2021, we completed the acquisition of WPD (now known as NGED) from PPL (the 'NGED Acquisition') and subsequently completed the sale of NECO to PPL on 24 May 2022 (the 'NECO Sale'), which was conditional on the NGED Acquisition. On 31 January 2023, we completed the sale of a 60% equity stake in National Grid Gas, our UK Gas Transmission and Metering businesses, (now known as National Gas Transmission) to a consortium comprising Macquarie Infrastructure and Real Assets and British Colombia Investment Management Corporation (the 'NGT Sale'). Under an option agreement entered into as part of the NGT Sale, the consortium also has an option, on broadly similar terms, to purchase the remaining 40% equity stake in National Gas Transmission. The option agreement in connection with this transaction is an outstanding material contract for the Company.

In connection with the NGED Acquisition, the Company entered into a £8.25 billion term loan facility and a £1.105 billion revolving loan facility term with Barclays Bank plc and Goldman Sachs as lenders and lead arrangers ('the Bridge Loan'). On 31 January 2023, the Bridge Loan was repaid in full.

In addition, each of our Executive Directors has a service agreement and each Non-executive Director has a letter of appointment. Apart from these, no contract (other than contracts entered into in the ordinary course of business) has been entered into by the Group within the two years immediately preceding the date of this report that is, or may be, material; or which contains any provision under which any member of the Group has any obligation or entitlement which is material to the Group at the date of this report.

Research, development and innovation activity

Indications of our activities in the field research and development are provided throughout the Strategic Report and the Directors' report. For example, in our business unit sections on pages 28 to 32, you can read about our work reducing and replacing the use of SF_6 in our UK ET business; in UK ED, our Take Charge innovation project is facilitating rapid charging of EVs; further development of FLISR in NE is enabling us to respond better to regional storms; and in NY Smart Path Connect is unlocking the power of renewable energy for our customers, while HyGrid is demonstrating the use of hydrogen in our gas networks on Long Island; our Electric Highways Study, co-authored with CALSTART, RMI, Geotab and Stable Auto, together with the plan being developed for medium and heavy-duty corridor charging, will be a first-of-its-kind blueprint for fast charging deployment for commercial vehicles across the northeastern US. Further examples of our innovation activity can also be found as examples of our strategy pillars on pages 12 and 13. Investment in research and development during the year for the Group was £23 million (2021/22: £11 million). We only disclose directly incurred expenditure, and not those amounts our partners contribute to joint or collaborative projects. Collaborating across the industry has played a crucial role in our ability to develop new programmes and deliver value to our stakeholders throughout 2022/23.

Other unaudited financial information

Alternative performance measures/non-IFRS reconciliations

Within the Annual Report, a number of financial measures are presented. These measures have been categorised as alternative performance measures (APMs), as per the European Securities and Markets Authority (ESMA) guidelines and the Securities and Exchange Commission (SEC) conditions for use of non-GAAP financial measures.

An APM is a financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined under IFRS. The Group uses a range of these measures to provide a better understanding of its underlying performance. APMs are reconciled to the most directly comparable IFRS financial measure where practicable.

The Group has defined the following financial measures as APMs derived from IFRS: net revenue, the various adjusted operating profit, earnings and earnings per share metrics detailed in the 'adjusted profit measures' section below, net debt, capital investment, funds from operations (FFO), FFO interest cover and retained cash flow (RCF)/adjusted net debt. For each of these we present a reconciliation to the most directly comparable IFRS measure. We present 'constant currency' comparative period performance and capital investment by applying the current year average exchange rate to the relevant US dollar amounts in the comparative periods presented, to remove the year-on-year impact of foreign exchange translation.

We also have a number of APMs derived from regulatory measures which have no basis under IFRS; we call these Regulatory Performance Measures (RPMs). They comprise: Group RoE, operating company RoE, regulated asset base, regulated financial performance, regulatory gearing, Asset Growth, Value Added, including Value Added per share and Value Growth. These measures include the inputs used by utility regulators to set the allowed revenues for many of our businesses.

We use RPMs to monitor progress against our regulatory agreements and certain aspects of our strategic objectives. Further, targets for certain of these performance measures are included in the Company's Annual Performance Plan (APP) and LTPP and contribute to how we reward our employees. As such, we believe that they provide close correlation to the economic value we generate for our shareholders and are therefore important supplemental measures for our shareholders to understand the performance of the business and to ensure a complete understanding of Group performance.

As the starting point for our RPMs is not IFRS, and these measures are not governed by IFRS, we are unable to provide meaningful reconciliations to any directly comparable IFRS measures, as differences between IFRS and the regulatory recognition rules applied have built up over many years. Instead, for each of these we present an explanation of how the measure has been determined and why it is important, and an overview as to why it would not be meaningful to provide a reconciliation to IFRS.

Alternative performance measures

Net revenue

Net revenue is revenue less pass-through costs, such as UK system balancing costs and gas and electricity commodity costs in the US. Pass-through costs are fully recoverable from our customers and are recovered through separate charges that are designed to recover those costs with no profit. Where revenue received or receivable exceeds the maximum amount permitted by our regulatory agreement, adjustments will be made to future prices to reflect this over-recovery. No liability is recognised, as such an adjustment to future prices relates to the provision of future services. Similarly, no asset is recognised where a regulatory agreement permits adjustments to be made to future prices in respect of an under-recovery.

	2023			2022			2021		
	Gross revenue £m	**Pass-through costs £m**	**Net revenue £m**	Gross revenue[1] £m	Pass-through costs £m	Net revenue £m	Gross revenue £m	Pass-through costs £m	Net revenue £m
UK Electricity Transmission	**1,987**	**(217)**	**1,770**	2,035	(152)	1,883	1,974	(151)	1,823
UK Electricity Distribution	**2,045**	**(418)**	**1,627**	1,482	(125)	1,357	—	—	—
UK Electricity System Operator	**4,690**	**(4,152)**	**538**	3,455	(3,215)	240	2,018	(1,911)	107
New England	**4,427**	**(2,095)**	**2,332**	4,550	(2,050)	2,500	4,214	(1,784)	2,430
New York	**6,994**	**(2,957)**	**4,037**	5,561	(2,161)	3,400	4,605	(1,469)	3,136
National Grid Ventures	**1,341**	**—**	**1,341**	1,024	—	1,024	786	—	786
Other	**317**	**—**	**317**	192	—	192	78	—	78
Sales between segments	**(142)**	**—**	**(142)**	(39)	—	(39)	(10)	—	(10)
Total – continuing operations	**21,659**	**(9,839)**	**11,820**	18,260	(7,703)	10,557	13,665	(5,315)	8,350
Discontinued operations	**1,604**	**(658)**	**946**	1,362	(397)	965	1,114	(233)	881
Total	**23,263**	**(10,497)**	**12,766**	19,622	(8,100)	11,522	14,779	(5,548)	9,231

1. Excluding exceptional income.

Adjusted profit measures

In considering the financial performance of our business and segments, we use various adjusted profit measures in order to aid comparability of results year-on-year. The various measures are presented on pages 54 – 59 and reconciled below.

Adjusted results – these exclude the impact of exceptional items and remeasurements that are treated as discrete transactions under IFRS and can accordingly be classified as such. This is a measure used by management that is used to derive part of the incentive target set annually for remunerating certain Executive Directors, and further details of these items are included in note 5 to the financial statements.

Underlying results – further adapts our adjusted results for continuing operations to take account of volumetric and other revenue timing differences arising due to the in-year difference between allowed and collected revenues, including revenue incentives, as governed by our rate plans in the US or regulatory price controls in the UK (but excluding totex-related allowances and adjustments or allowances for pension deficit contributions). For 2022/23, as highlighted on page 239, our underlying results exclude £30 million (2022: £16 million) of timing differences as well as £258 million (2022: £163 million) of major storm costs (as costs exceeded our $100 million threshold in both 2022/23 and 2021/22). We expect to recover major storm costs incurred through regulatory mechanisms in the US.

Constant currency – the adjusted profit measures are also shown on a constant currency basis to show the year-on-year comparisons excluding any impact of foreign currency translation movements.

Reconciliation of statutory, adjusted and underlying profits from continuing operations at actual exchange rates

Year ended 31 March 2023	Statutory £m	Exceptionals and remeasurements £m	Adjusted £m	Timing £m	Major storm costs £m	Underlying £m
UK Electricity Transmission	993	2	995	112	—	1,107
UK Electricity Distribution	1,069	22	1,091	139	—	1,230
UK Electricity System Operator	237	1	238	(207)	—	31
New England	1,132	(424)	708	39	72	819
New York	541	200	741	(53)	186	874
National Grid Ventures	957	(467)	490	—	—	490
Other	(50)	81	31	—	—	31
Total operating profit	4,879	(585)	4,294	30	258	4,582
Net finance costs	(1,460)	(54)	(1,514)	—	—	(1,514)
Share of post-tax results of joint ventures and associates	171	19	190	—	—	190
Profit before tax	3,590	(620)	2,970	30	258	3,258
Tax	(876)	241	(635)	(4)	(70)	(709)
Profit after tax	2,714	(379)	2,335	26	188	2,549

Year ended 31 March 2022	Statutory £m	Exceptionals and remeasurements £m	Adjusted £m	Timing £m	Major storm costs £m	Underlying £m
UK Electricity Transmission	1,055	12	1,067	85	—	1,152
UK Electricity Distribution	909	—	909	(22)	—	887
UK Electricity System Operator	5	2	7	47	—	54
New England	764	(21)	743	32	111	886
New York	1,095	(315)	780	(126)	52	706
National Grid Ventures	283	3	286	—	—	286
Other	260	(239)	21	—	—	21
Total operating profit	4,371	(558)	3,813	16	163	3,992
Net finance costs	(1,022)	(59)	(1,081)	—	—	(1,081)
Share of post-tax results of joint ventures and associates	92	56	148	—	—	148
Profit before tax	3,441	(561)	2,880	16	163	3,059
Tax	(1,258)	589	(669)	3	(42)	(708)
Profit after tax	2,183	28	2,211	19	121	2,351

Year ended 31 March 2021	Statutory £m	Exceptionals and remeasurements £m	Adjusted £m	Timing £m	Major storm costs £m	Underlying £m
UK Electricity Transmission	1,080	14	1,094	(42)	—	1,052
UK Electricity Distribution	—	—	—	—	—	—
UK Electricity System Operator	(53)	(7)	(60)	130	—	70
New England	614	(3)	611	11	105	727
New York	695	(30)	665	12	45	722
National Grid Ventures	181	4	185	—	—	185
Other	(116)	48	(68)	—	—	(68)
Total operating profit	2,401	26	2,427	111	150	2,688
Net finance costs	(795)	(70)	(865)	—	—	(865)
Share of post-tax results of joint ventures and associates	58	8	66	—	—	66
Profit before tax	1,664	(36)	1,628	111	150	1,889
Tax	(360)	26	(334)	(23)	(39)	(396)
Profit after tax	1,304	(10)	1,294	88	111	1,493

Reconciliation of adjusted and underlying earnings from continuing operations at constant currency

		At constant currency				
Year ended 31 March 2022	Adjusted at actual exchange rate £m	Constant currency adjustment £m	Adjusted £m	Timing £m	Major storm costs £m	Underlying £m
UK Electricity Transmission	1,067	—	1,067	85	—	1,152
UK Electricity Distribution	909	—	909	(22)	—	887
UK Electricity System Operator	7	—	7	47	—	54
New England	743	81	824	35	123	982
New York	780	85	865	(140)	58	783
National Grid Ventures	286	5	291	—	—	291
Other	21	1	22	—	—	22
Total operating profit	3,813	172	3,985	5	181	4,171
Net finance costs	(1,081)	(55)	(1,136)	—	—	(1,136)
Share of post-tax results of joint ventures and associates	148	4	152	—	—	152
Profit before tax	2,880	121	3,001	5	181	3,187
Tax	(669)	(32)	(701)	6	(47)	(742)
Profit after tax	2,211	89	2,300	11	134	2,445
Attributable to non-controlling interests	(1)	—	(1)	—	—	(1)
Earnings	2,210	89	2,299	11	134	2,444
Earnings per share (pence)	61.4	2.5	63.9	0.3	3.7	67.9

		At constant currency				
Year ended 31 March 2021	Adjusted at actual exchange rate £m	Constant currency adjustment £m	Adjusted £m	Timing £m	Major storm costs £m	Underlying £m
UK Electricity Transmission	1,094	—	1,094	(42)	—	1,052
UK Electricity Distribution	—	—	—	—	—	—
UK Electricity System Operator	(60)	—	(60)	130	—	70
New England	611	63	674	12	116	802
New York	665	68	733	13	50	796
National Grid Ventures	185	3	188	—	—	188
Other	(68)	2	(66)	—	—	(66)
Total operating profit	2,427	136	2,563	113	166	2,842
Net finance costs	(865)	(66)	(931)	—	—	(931)
Share of post-tax results of joint ventures and associates	66	4	70	—	—	70
Profit before tax	1,628	74	1,702	113	166	1,981
Tax	(334)	(19)	(353)	(23)	(43)	(419)
Profit after tax	1,294	55	1,349	90	123	1,562
Attributable to non-controlling interests	(1)	—	(1)	—	—	(1)
Earnings	1,293	55	1,348	90	123	1,561
Earnings per share (pence)	36.7	1.6	38.3	2.6	3.4	44.3

Earnings per share calculations from continuing operations – at actual exchange rates

The table below reconciles the profit after tax from continuing operations as per the previous tables back to the earnings per share from continuing operations for each of the adjusted profit measures. Earnings per share is only presented for those adjusted profit measures that are at actual exchange rates, and not for those at constant currency.

Year ended 31 March 2023	Profit after tax £m	Non-controlling interest £m	Profit after tax attributable to shareholders £m	Weighted average number of shares millions	Earnings per share pence
Statutory	**2,714**	**–**	**2,714**	**3,659**	**74.2**
Adjusted	**2,335**	**–**	**2,335**	**3,659**	**63.8**
Underlying	**2,549**	**–**	**2,549**	**3,659**	**69.7**

Year ended 31 March 2022	Profit after tax £m	Non-controlling interest £m	Profit after tax attributable to shareholders £m	Weighted average number of shares millions	Earnings per share pence
Statutory	2,183	(1)	2,182	3,599	60.6
Adjusted	2,211	(1)	2,210	3,599	61.4
Underlying	2,351	(1)	2,350	3,599	65.3

Year ended 31 March 2021	Profit after tax £m	Non-controlling interest £m	Profit after tax attributable to shareholders £m	Weighted average number of shares millions	Earnings per share pence
Statutory	1,304	(1)	1,303	3,523	37.0
Adjusted	1,294	(1)	1,293	3,523	36.7
Underlying	1,493	(1)	1,492	3,523	42.4

Reconciliation of total Group statutory operating profit to adjusted earnings (including and excluding the impact of timing and major storm costs)

	Including timing and major storm costs			Excluding timing and major storm costs		
Year ended 31 March	**2023 £m**	2022 £m	2021 £m	**2023 £m**	2022 £m	2021 £m
Continuing operations						
Adjusted operating profit	**4,294**	3,813	2,427	**4,582**	3,992	2,688
Adjusted net finance costs	**(1,514)**	(1,081)	(865)	**(1,514)**	(1,081)	(865)
Share of post-tax results of joint ventures and associates	**190**	148	66	**190**	148	66
Adjusted profit before tax	**2,970**	2,880	1,628	**3,258**	3,059	1,889
Adjusted tax	**(635)**	(669)	(334)	**(709)**	(708)	(396)
Adjusted profit after tax	**2,335**	2,211	1,294	**2,549**	2,351	1,493
Attributable to non-controlling interests	**—**	(1)	(1)	**—**	(1)	(1)
Adjusted earnings from continuing operations	**2,335**	2,210	1,293	**2,549**	2,350	1,492
Exceptional items after tax	**619**	(320)	(52)	**619**	(320)	(52)
Remeasurements after tax	**(240)**	292	62	**(240)**	292	62
Earnings from continuing operations	**2,714**	2,182	1,303	**2,928**	2,322	1,502
Discontinued operations						
Adjusted operating profit	**714**	654	499	**702**	734	595
Adjusted net finance costs	**(295)**	(218)	(77)	**(295)**	(218)	(77)
Share of post-tax results of joint ventures and associates	**—**	—	—	**—**	—	—
Adjusted profit before tax	**419**	436	422	**407**	516	518
Adjusted tax	**(99)**	(92)	(82)	**(97)**	(107)	(100)
Adjusted profit after tax	**320**	344	340	**310**	409	418
Attributable to non-controlling interests	**—**	—	—	**—**	—	—
Adjusted earnings from discontinued operations	**320**	344	340	**310**	409	418
Exceptional items and gain on disposal after tax	**4,811**	(163)	(5)	**4,811**	(163)	(5)
Remeasurements after tax	**(48)**	(10)	2	**(48)**	(10)	2
Earnings from discontinued operations	**5,083**	171	337	**5,073**	236	415
Total Group (continuing and discontinued operations)						
Adjusted operating profit	**5,008**	4,467	2,926	**5,284**	4,726	3,283
Adjusted net finance costs	**(1,809)**	(1,299)	(942)	**(1,809)**	(1,299)	(942)
Share of post-tax results of joint ventures and associates	**190**	148	66	**190**	148	66
Adjusted profit before tax	**3,389**	3,316	2,050	**3,665**	3,575	2,407
Adjusted tax	**(734)**	(761)	(416)	**(806)**	(815)	(496)
Adjusted profit after tax	**2,655**	2,555	1,634	**2,859**	2,760	1,911
Attributable to non-controlling interests	**—**	(1)	(1)	**—**	(1)	(1)
Adjusted earnings from continuing and discontinued operations	**2,655**	2,554	1,633	**2,859**	2,759	1,910
Exceptional items after tax	**5,430**	(483)	(57)	**5,430**	(483)	(57)
Remeasurements after tax	**(288)**	282	64	**(288)**	282	64
Total Group earnings from continuing and discontinued operations	**7,797**	2,353	1,640	**8,001**	2,558	1,917

Reconciliation of adjusted EPS to statutory earnings (including and excluding the impact of timing and major storm costs)

	Including timing and major storm costs			Excluding timing and major storm costs		
Year ended 31 March	**2023 pence**	2022 pence	2021 pence	**2023 pence**	2022 pence	2021 pence
Adjusted EPS from continuing operations	**63.8**	61.4	36.7	**69.7**	65.3	42.4
Exceptional items and remeasurements after tax from continuing operations	**10.4**	(0.8)	0.3	**10.4**	(0.8)	0.3
EPS from continuing operations	**74.2**	60.6	37.0	**80.1**	64.5	42.7
Adjusted EPS from discontinued operations	**8.7**	9.6	9.7	**8.5**	11.4	11.8
Exceptional items and remeasurements after tax from discontinued operations	**130.2**	(4.8)	(0.1)	**130.2**	(4.8)	(0.1)
EPS from discontinued operations	**138.9**	4.8	9.6	**138.7**	6.6	11.7
Total adjusted EPS from continuing and discontinued operations	**72.5**	71.0	46.4	**78.2**	76.7	54.2
Total exceptional items and remeasurements after tax from continuing and discontinued operations	**140.6**	(5.6)	0.2	**140.6**	(5.6)	0.2
Total Group EPS from continuing and discontinued operations	**213.1**	65.4	46.6	**218.8**	71.1	54.4

Timing and regulated revenue adjustments

As described on pages 219 – 224, our allowed revenues are set in accordance with our regulatory price controls or rate plans. We calculate the tariffs we charge our customers based on the estimated volume of energy we expect will be delivered during the coming period. The actual volumes delivered will differ from the estimate. Therefore, our total actual revenue will be different from our total allowed revenue. These differences are commonly referred to as timing differences. If we collect more than the allowed revenue, adjustments will be made to future prices to reflect this over-recovery, and if we collect less than the allowed level of revenue, adjustments will be made to future prices to reflect the under-recovery. In the US, a substantial portion of our costs are pass-through costs (including commodity and energy-efficiency costs) and are fully recoverable from our customers. Timing differences between costs of this type being incurred and their recovery through revenue are also included in timing. The amounts calculated as timing differences are estimates and subject to change until the variables that determine allowed revenue are final.

Our continuing operating profit for the year includes a total estimated in-year under-collection of £30 million (2022: £16 million under-collection, or £5 million under-collection at constant currency). For continuing operations, our closing balance at 31 March 2023 was £64 million over-recovered. Excluding discontinued operations, there was a cumulative under-recovery of £246 million at 31 March 2023 (2022: under-recovery of £190 million) in the UK. In the US, cumulative timing over-recoveries at 31 March 2023 were £310 million (2022: £326 million over-recovery). The total estimated in-year over- or under-collection excludes opening balance adjustments related to estimates or finalisation of balances as part of regulatory submissions.

In addition to the timing adjustments described above, as part of the RIIO price controls in the UK, outperformance against allowances as a result of the totex incentive mechanism, together with changes in output-related allowances included in the original price control, will almost always be adjusted in future revenue recoveries, typically starting in two years' time. We also receive revenues in relation to certain costs incurred or expected to be incurred (for example pension deficit contributions), with differences between revenues received and cost incurred adjusted in future revenue recoveries, e.g. after a triennial actuarial pension funding valuation has been concluded. Our current IFRS revenues and earnings include these amounts that relate to certain costs incurred in prior years or that will need to be repaid or recovered in future periods. Such adjustments will form an important part of the continuing difference between reported IFRS results and underlying economic performance based on our regulatory obligations.

For our UK regulated businesses as a whole (including discontinued operations), timing and regulated revenue adjustments totalled a return of £32 million in the year (2022: £190 million return). In the US, accumulated regulatory entitlements cover a range of different areas, with the most significant being environmental remediation and pension assets, as well as deferred storm costs. All regulatory entitlements are recoverable (or repayable) over different periods, which are agreed with the regulators to match the expected payment profile for the liabilities. New England and New York in-year over/(under)-recovery and all New England and New York balances have been translated using the average exchange rate of $1.22 for the year ended 31 March 2023.

	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	Continuing £m	Discontinued £m	Total £m
1 April 2022 opening balance[1]	(95)	22	(129)	(343)	656	111	(160)	(49)
(Under)/over-recovery	(112)	(139)	207	(39)	53	(30)	12	(18)
Disposals	—	—	—	(17)	—	(17)	148	131
31 March 2023 closing balance to (recover)/return[2]	(207)	(117)	78	(399)	709	64	—	64

	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	Continuing £m	Discontinued £m	Total £m
1 April 2021 opening balance[1]	—	—	(80)	(295)	516	141	(76)	65
(Under)/over-recovery	(85)	22	(47)	(35)	140	(5)	(80)	(85)
31 March 2022 closing balance to (recover)/return[2]	(85)	22	(127)	(330)	656	136	(156)	(20)

	UK Electricity Transmission £m	UK Electricity Distribution £m	UK Electricity System Operator £m	New England £m	New York £m	Continuing £m	Discontinued £m	Total £m
1 April 2020 opening balance[1]	(52)	—	70	(282)	531	267	16	283
Over/(under)-recovery	42	—	(130)	(12)	(13)	(113)	(96)	(209)
31 March 2021 closing balance to (recover)/return[2]	(10)	—	(60)	(294)	518	154	(80)	74

1. Opening balances have been restated to reflect the finalisation of calculated over/(under)-recoveries in the UK and the US.
2. The closing balance (including discontinued operations) at 31 March 2023 was £59 million over-recovered (translated at the closing rate of $1.23:£1). 31 March 2022 was £45 million under-recovered (translated at the closing rate of $1.31:£1). 31 March 2021 was £48 million over-recovered (translated at the closing rate of $1.38:£1).

Capital investment

'Capital investment' or 'investment' refer to additions to property, plant and equipment and intangible assets, and contributions to joint ventures and associates during the period. We also include the Group's investments by National Grid Partners during the period, which are classified for IFRS purposes as non-current financial assets in the Group's consolidated statement of financial position.

Investments made in previous years to our St William Homes LLP arrangement were excluded based on the nature of that joint venture arrangement. We typically contributed property assets to the joint venture in exchange for cash and accordingly did not consider these transactions to be in the nature of capital investment.

	At actual exchange rates			At constant currency		
Year ended 31 March	**2023 £m**	2022 £m	change	**2023 £m**	2022 £m	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[1]	**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	**709**	452	57%	**709**	456	55%
Other	**13**	10	30%	**13**	10	30%
Group capital expenditure – continuing[1]	**7,484**	6,185	21%	**7,484**	6,573	14%
Equity investment, funding contributions and loans to joint ventures and associates[2]	**197**	461	(57)%	**197**	512	(62)%
Investments in financial assets (National Grid Partners)	**59**	93	(37)%	**59**	103	(43)%
Group capital investment – continuing[1]	**7,740**	6,739	15%	**7,740**	7,188	8%
Discontinued operations	**301**	261	15%	**301**	261	15%
Group capital investment – total	**8,041**	7,000	15%	**8,041**	7,449	8%

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).
2. Excludes £nil (2022: £25 million) equity contribution to the St William Homes LLP joint venture.

Net debt

See note 29 the financial statements on page 185 for the definition and reconciliation of net debt.

Funds from operations and interest cover

FFO are the cash flows generated by the operations of the Group. Credit rating metrics, including FFO, are used as indicators of balance sheet strength.

Year ended 31 March	2023 £m	2022[1] £m	2021[1] £m
Interest expense (income statement)	**1,680**	1,146	977
Hybrid interest reclassified as dividend	**(39)**	(38)	(38)
Capitalised interest	**249**	152	131
Pensions interest adjustment	**11**	11	(16)
Unwinding of discount on provisions	**(88)**	(73)	(78)
Pension interest	**85**	–	–
Interest charge (discontinued operations)	**–**	218	–
Adjusted interest expense	**1,898**	1,416	976
Net cash inflow from operating activities	**6,343**	5,490	4,461
Interest received on financial instruments	**65**	40	16
Interest paid on financial instruments	**(1,430)**	(1,053)	(835)
Dividends received	**190**	166	80
Working capital adjustment	**(286)**	(361)	(312)
Excess employer pension contributions	**116**	99	116
Hybrid interest reclassified as dividend	**39**	38	38
Add back accretions	**483**	241	–
Difference in net interest expense in income statement to cash flow	**(395)**	(177)	(138)
Difference in current tax in income statement to cash flow	**(281)**	72	(67)
Current tax related to prior periods	**–**	(35)	8
Cash flow from discontinued operations	**555**	668	–
Other fair value adjustments	**–**	–	22
Funds from operations (FFO)	**5,399**	5,188	3,389
FFO interest cover ((FFO + adjusted interest expense)/adjusted interest expense)	**3.8x**	4.7x	4.5x

1. Numbers for 2022 and 2021 reflect the calculations for the total Group as based on the published accounts for the respective years.

Retained cash flow/adjusted net debt

RCF/adjusted net debt is one of two credit metrics that we monitor in order to ensure the Group is generating sufficient cash to service its debts, consistent with maintaining a strong investment-grade credit rating. We calculate RCF/adjusted net debt applying the methodology used by Moody's, as this is one of the most constrained calculations of credit worthiness. The net debt denominator includes adjustments to take account of the equity component of hybrid debt.

Year ended 31 March	2023 £m	2022[1] £m	2021[1] £m
Funds from operations (FFO)	**5,399**	5,188	3,389
Hybrid interest reclassified as dividend	**(39)**	(38)	(38)
Ordinary dividends paid to shareholders	**(1,607)**	(922)	(1,413)
RCF	**3,753**	4,228	1,938
Borrowings	**42,985**	45,465	32,339
Less:			
50% hybrid debt	**(1,049)**	(1,027)	(1,032)
Cash and cash equivalents	**(126)**	(190)	(157)
Financial and other investments	**(1,764)**	(2,292)	(1,768)
Underfunded pension obligations	**292**	326	467
Borrowings in held for sale	**–**	5,234	–
Collateral – cash received under collateral agreements[2]	**–**	–	(582)
Adjusted net debt (includes pension deficit)	**40,338**	47,516	29,267
RCF/adjusted net debt	**9.3%**	8.9%	6.6%

1. Numbers for 2022 and 2021 reflect the calculations for the total Group as based on the published accounts for that year.
2. Below agency threshold to adjust in 2023 and 2022, 2021 not restated.

Regulatory performance measures

Regulated financial performance – UK

Regulatory financial performance is a pre-interest and tax measure, starting at segmental operating profit and making adjustments (such as the elimination of all pass-through items included in revenue allowances and timing) to approximate regulatory profit for the UK regulated activities. This measure provides a bridge for investors between a well-understood and comparable IFRS starting point and through the key adjustments required to approximate regulatory profit. This measure also provides the foundation to calculate Group RoE.

Under the UK RIIO regulatory arrangements the Company is incentivised to deliver efficiencies against cost targets set by the regulator. In total, these targets are set in terms of a regulatory definition of combined total operating and capital expenditure, also termed 'totex'. The definition of totex differs from the total combined regulated controllable operating costs and regulated capital expenditure as reported in this statement according to IFRS accounting principles. Key differences are capitalised interest, capital contributions, exceptional costs, costs covered by other regulatory arrangements and unregulated costs.

For the reasons noted above, the table below shows the principal differences between the IFRS operating profit and the regulated financial performance, but is not a formal reconciliation to an equivalent IFRS measure.

UK Electricity Transmission

Year ended 31 March	2023 £m	2022 £m	2021 £m
Adjusted operating profit	995	1,067	1,094
Movement in regulatory 'IOUs'	107	82	59
Deferred taxation adjustment	73	26	53
RAV indexation – 2% CPIH (2021: 3% RPI) long-run inflation	309	287	418
Regulatory vs IFRS depreciation difference	(536)	(433)	(434)
Fast money/other	37	(44)	57
Pensions	(44)	(42)	(41)
Performance RAV created	68	75	110
Regulated financial performance	**1,009**	1,018	1,316

UK Electricity Distribution

Year ended 31 March	2023 £m	2022 £m	2021 £m
Adjusted operating profit	1,091	909	n/a
Less non-regulated profits	(46)	(51)	n/a
Movement in regulatory 'IOUs'	88	(42)	n/a
Deferred taxation adjustment	65	28	n/a
RAV indexation – 3% RPI long-run inflation	277	198	n/a
Regulatory vs IFRS depreciation difference	(506)	(358)	n/a
Fast money/other	11	17	n/a
Pensions	(157)	(111)	n/a
Performance RAV created	22	9	n/a
Regulated financial performance	**845**	599	n/a

UK Electricity System Operator

Year ended 31 March	2023 £m	2022 £m	2021 £m
Adjusted operating profit	238	7	(60)
Movement in regulatory 'IOUs'	(223)	31	129
Deferred taxation adjustment	(4)	(4)	7
RAV indexation – 2% CPIH (2021: 3% RPI) long-run inflation	7	5	6
Regulatory vs IFRS depreciation difference	32	27	(5)
Fast money/other	(2)	(24)	(29)
Pensions	(11)	(10)	(13)
Performance RAV created	—	—	1
Regulated financial performance	**37**	32	36

UK Gas Transmission

Year ended 31 March	2023 £m	2022 £m	2021 £m
Adjusted operating profit	**714**	654	499
Less non-regulated profits	**(129)**	(150)	(157)
Movement in regulatory 'IOUs'	**(24)**	72	34
Deferred taxation adjustment	**28**	13	12
RAV indexation – 2% CPIH (2021: 3% RPI) long-run inflation	**109**	126	189
Regulatory vs IFRS depreciation difference	**(331)**	(281)	(88)
Fast money/other	**(1)**	(4)	25
Pensions	**(9)**	—	(34)
Performance RAV created	**5**	3	(23)
Regulated financial performance	**362**	433	457

Regulated financial performance – US

New England

Year ended 31 March	2023 £m	2022 £m	2021 £m
Adjusted operating profit	**708**	743	611
Provision for bad and doubtful debts (COVID-19), net of recoveries[1]	**—**	—	(7)
Major storm costs	**72**	111	105
Timing	**39**	32	11
Depreciation adjustment[2]	**(18)**	(67)	—
US GAAP pension adjustment	**34**	11	2
Regulated financial performance	**835**	830	722

1. New England financial performance includes an adjustment reflecting our expectation for future recovery of COVID-19-related provision for bad and doubtful debts.
2. The depreciation adjustment relates to the impact of the cessation of depreciation for NECO under IFRS following reclassification as held for sale.

New York

Year ended 31 March	2023 £m	2022 £m	2021 £m
Adjusted operating profit	**741**	780	665
Provision for bad and doubtful debts (COVID-19), net of recoveries[1]	**(21)**	—	127
Major storm costs	**186**	52	45
Timing	**(53)**	(126)	12
US GAAP pension adjustment	**11**	66	1
Regulated financial performance	**864**	772	850

1. New York financial performance includes an adjustment reflecting the impact of our in-year recovery (2021: expectation for future recovery) in respect of COVID-19-related provision for bad and doubtful debts.

Total regulated financial performance

Year ended 31 March	2023 £m	2022 £m	2021 £m
UK Electricity Transmission	**1,009**	1,018	1,316
UK Electricity Distribution	**845**	599	n/a
UK Electricity System Operator	**37**	32	36
UK Gas Transmission	**362**	433	457
New England	**835**	830	722
New York	**864**	772	850
Total regulated financial performance	**3,952**	3,684	3,381

New England and New York timing, major storms costs and movement in UK regulatory 'IOUs' – Revenue related to performance in one year may be recovered in later years. Where revenue received or receivable exceeds the maximum amount permitted by our regulatory agreement, adjustments will be made to future prices to reflect this over-recovery. No liability is recognised under IFRS, as such an adjustment to future prices relates to the provision of future services. Similarly, no asset is recognised under IFRS where a regulatory agreement permits adjustments to be made to future prices in respect of an under-recovery. In the UK, this is calculated as the movement in other regulated assets and liabilities.

Performance RAV – UK performance efficiencies are in part remunerated by the creation of additional RAV which is expected to result in future earnings under regulatory arrangements. This is calculated as in-year totex outperformance multiplied by the appropriate regulatory capitalisation ratio and multiplied by the retained company incentive sharing ratio.

Pension adjustment – Cash payments against pension deficits in the UK are recoverable under regulatory contracts. In US regulated operations, US GAAP pension charges are generally recoverable through rates. Revenue recoveries are recognised under IFRS but payments are not charged against IFRS operating profits in the year. In the UK this is calculated as cash payments against the regulatory proportion of pension deficits in the UK regulated business, whereas in the US it is the difference between IFRS and US GAAP pension charges.

2% CPIH and 3% RPI RAV indexation – Future UK revenues are expected to be set using an asset base adjusted for inflation. This is calculated as UK RAV multiplied by 2% long-run CPIH inflation assumption under RIIO-2 and a 3% long-run RPI inflation assumption under RIIO-1.

UK deferred taxation adjustment – Future UK revenues are expected to recover cash taxation cost including the unwinding of deferred taxation balances created in the current year. This is the difference between: (1) IFRS underlying EBITDA less other regulatory adjustments; and (2) IFRS underlying EBITDA less other regulatory adjustments less current taxation (adjusted for interest tax shield) then grossed up at full UK statutory tax rate.

Regulatory depreciation – US and UK regulated revenues include allowance for a return of regulatory capital in accordance with regulatory assumed asset lives. This return does not form part of regulatory profit.

Fast/slow money adjustment – The regulatory remuneration of costs incurred is split between in-year revenue allowances and the creation of additional RAV. This does not align with the classification of costs as operating costs and fixed asset additions under IFRS accounting principles. This is calculated as the difference between IFRS classification of costs as operating costs or fixed asset additions and the regulatory classification.

Regulated asset base

The regulated asset base is a regulatory construct, based on predetermined principles not based on IFRS. It effectively represents the invested capital on which we are authorised to earn a cash return. By investing efficiently in our networks, we add to our regulated asset base over the long term, and this in turn contributes to delivering shareholder value. Our regulated asset base comprises our regulatory asset value in the UK plus our rate base in the US.

Maintaining efficient investment in our regulated asset base ensures we are well positioned to provide consistently high levels of service to our customers and increases our revenue allowances in future years. While we have no specific target, our overall aim is to achieve between 6% and 8% growth in regulated asset base each year through continued investment in our networks in both the UK and US.

In the UK, the way in which our transactions impact RAV is driven by principles set out by Ofgem. In a number of key areas these principles differ from the requirements of IFRS, including areas such as additions and the basis for depreciation. Further, our UK RAV is adjusted annually for inflation. RAV in each of our retained UK businesses has evolved over the period since privatisation in 1990 and, as a result, historical differences between the initial determination of RAV and balances reported under UK GAAP at that time still persist. In the case of UK ED, differences arise as the result of acquisition fair value adjustments (where PP&E at acquisition has been valued above RAV). Due to the above, substantial differences exist in the measurement bases between RAV and an IFRS balance metric, and therefore it is not possible to provide a meaningful reconciliation between the two.

In the US, rate base is a regulatory measure determined for each of our main US operating companies. It represents the value of property and other assets or liabilities on which we are permitted to earn a rate of return, as set out by the regulatory authorities for each jurisdiction. The calculations are based on the applicable regulatory agreements for each jurisdiction and include the allowable elements of assets and liabilities from our US companies. For this reason, it is not practical to provide a meaningful reconciliation from the US rate base to an equivalent IFRS measure. However, we include the calculation below.

'Total regulated and other balances' for our UK regulated businesses include the under- or over-recovery of allowances that those businesses target to collect in any year, which are based on the regulator's forecasts for that year. Under the UK price control arrangements, revenues will be adjusted in future years to take account of actual levels of collected revenue, costs and outputs delivered when they differ from those regulatory forecasts. In the US, other regulatory assets and liabilities include regulatory assets and liabilities which are not included in the definition of rate base, including working capital where appropriate.

'Total regulated and other balances' for NGV and other businesses includes assets and liabilities as measured under IFRS, but excludes certain assets and liabilities such as pensions, tax, net debt and goodwill. This included a £101 million deferred balance for separation and transaction costs incurred in 2021/22 related to the sale of NECO and UK Gas Transmission, which has been released to offset against the proceeds received on disposal of these businesses in 2022/23.

Year ended 31 March (£m at constant currency)	RAV, rate base or other business assets 2023 £m	2022[1] £m	Total regulated and other balances 2023[2,3] £m	2022[1,2,3] £m
UK Electricity Transmission	**17,072**	15,471	**16,912**	15,242
UK Electricity Distribution	**10,773**	9,248	**10,756**	9,299
UK Electricity System Operator	**360**	297	**282**	442
UK Gas Transmission (excluding metering)	**—**	6,561	**—**	6,669
New England	**7,907**	9,860	**10,080**	11,774
New York	**15,131**	13,768	**16,184**	14,646
Total regulated	**51,243**	55,205	**54,214**	58,072
National Grid Ventures and other businesses (including discontinued metering business in 2022)	**6,604**	5,374	**6,712**	4,566
Total Group regulated and other balances	**57,847**	60,579	**60,926**	62,638

1. Figures relating to prior periods have, where appropriate, been re-presented at constant currency, for segmental reorganisation, opening balance adjustments following the completion of the UK regulatory reporting pack process and finalisation of US balances.
2. Includes totex-related regulatory IOUs of £502 million (2022: £271 million), over-recovered timing balances of £246 million (2022: £346 million under-recovered) and under-recovered legacy balances related to previous price controls of £0 million (2022: £9 million).
3. Includes assets for construction work-in-progress of £2,319 million (2022: £2,139 million), other regulatory assets related to timing and other cost deferrals of £771 million (2022: £759 million) and net working capital liabilities of £136 million (2022: £277 million).

New England and New York rate base and other total regulated and other balances for 31 March 2022 have been re-presented in the table above at constant currency. At actual currency the values were £11.1 billion and £13.7 billion respectively.

Group RoE

Group RoE provides investors with a view of the performance of the Group as a whole compared with the amounts invested by the Group in assets attributable to equity shareholders. It is the ratio of our regulatory financial performance to our measure of equity investment in assets. It therefore reflects the regulated activities as well as the contribution from our non-regulated businesses together with joint ventures and non-controlling interests.

We use Group RoE to measure our performance in generating value for our shareholders, and targets for Group RoE are included in the incentive mechanisms for executive remuneration within both the APP and LTPP schemes.

Group RoE is underpinned by our regulated asset base. For the reasons noted above, no reconciliation to IFRS has been presented, as we do not believe it would be practical. However, we do include the calculations below.

Calculation: Regulatory financial performance including a long-run inflation assumption (3% RPI for RIIO-1; 2% CPIH for RIIO-2), less adjusted interest and adjusted taxation divided by equity investment in assets:

- adjusted interest removes accretions above long-run inflation rates, interest on pensions, capitalised interest in regulated operations and unwind of discount rate on provisions;
- adjusted taxation adjusts the Group taxation charge for differences between IFRS profit before tax and regulated financial performance less adjusted interest; and
- equity investment in assets is calculated as the total opening UK regulatory asset value, the total opening US rate base plus goodwill plus opening net book value of National Grid Ventures and other activities (excluding certain amounts such as pensions, tax and commodities) and our share of joint ventures and associates, minus opening net debt as reported under IFRS restated to the weighted average sterling–dollar exchange rate for the year.

Year ended 31 March	2023 £m	2022 £m	2021 £m
Regulated financial performance	**3,952**	3,684	3,381
Operating profit of other activities – continuing operations	**595**	330	144
Operating profit of other activities – discontinued operations	**113**	150	157
Group financial performance	**4,660**	4,164	3,682
Share of post-tax results of joint ventures and associates[1]	**202**	148	66
Non-controlling interests	**—**	(1)	(1)
Adjusted total Group interest charge (including discontinued)	**(1,546)**	(1,191)	(882)
Total Group tax charge (including discontinued)	**(734)**	(761)	(416)
Tax on adjustments	**7**	43	(175)
Total Group financial performance after interest and tax	**2,589**	2,402	2,274
Opening rate base/RAV	**55,558**	41,043	39,552
Opening other balances	**5,410**	4,864	3,984
Opening goodwill	**12,253**	5,266	5,295
Opening capital employed	**73,221**	51,173	48,831
Opening net debt	**(49,691)**	(30,072)	(27,398)
Opening equity	**23,530**	21,101	21,433
Group RoE	**11.0%**	11.4%	10.6%

1. 2023 includes £12 million in respect of the Group's 40% retained minority interest in National Gas Transmission.

UK and US regulated RoE

Year ended 31 March	Regulatory Debt: Equity assumption	Achieved Return on Equity 2023 %	Achieved Return on Equity 2022 %	Base or Allowed Return on Equity 2023 %	Base or Allowed Return on Equity 2022 %
UK Electricity Transmission	55/45	7.5	7.7	6.3	6.3
UK Electricity Distribution	65/35	13.2	13.6	9.6	9.6
UK Gas Transmission	60/40	7.8	7.8	6.6	6.6
New England	Avg. 45/55	8.3	8.3	9.9	9.8
New York	Avg. 52/48	8.6	8.8	8.9	8.9

UK businesses' regulated RoEs

UK regulated businesses' RoEs are a measure of how the businesses are performing against the assumptions used by our UK regulator. These returns are calculated using the assumption that the businesses are financed in line with the regulatory adjudicated capital structure, at the cost of debt assumed by the regulator, and that inflation is equal to a long-run assumption of 3% RPI under RIIO-1 and 2% CPIH under RIIO-2. They are calculated by dividing elements of out/under-performance versus the regulatory contract (i.e. regulated financial performance disclosed above) by the average equity RAV in line with the regulatory assumed capital structure and adding to the base allowed RoE.

These are important measures of UK regulated businesses' performance, and our operational strategy continues to focus on these metrics. These measures can be used to determine how we are performing under the RIIO framework and also help investors to compare our performance with similarly regulated UK entities. Reflecting the importance of these metrics, they are also key components of the APP scheme.

The respective businesses' UK RoEs are underpinned by their RAVs. For the reasons noted above, no reconciliation to IFRS has been presented, as we do not believe it would be practical.

US businesses' regulated RoEs

US regulated businesses' RoEs are a measure of how the businesses are performing against the assumptions used by the US regulators. This US operational return measure is calculated using the assumption that the businesses are financed in line with the regulatory adjudicated capital structure and allowed cost of debt. The returns are divided by the average rate base (or where a reported rate base is not available, an estimate based on rate base calculations used in previous rate filings) multiplied by the adjudicated equity portion in the regulatory adjudicated capital structure.

These are important measures of our New England and New York regulated businesses' performance, and our operational strategy continues to focus on these metrics. This measure can be used to determine how we are performing and also helps investors compare our performance with similarly regulated US entities. Reflecting the importance of these metrics, they are also key components of the APP scheme.

The New England and New York businesses' returns are based on a calculation which gives proportionately more weighting to those businesses which have a greater rate base. For the reasons noted above, no reconciliations to IFRS for the RoE measures have been presented, as we do not believe it would be practical to reconcile our IFRS balance sheet to the equity base.

The table below shows the principal differences between the IFRS result of the New England and New York segments, and the 'returns' used to derive their respective US jurisdictional RoEs. In outlining these differences, we also include the aggregated business results under US GAAP for New England and New York jurisdictions.

In respect of 2021/22 and 2020/21, this measure is the aggregate operating profit of our US OpCo entities' publicly available financial statements prepared under US GAAP for the New England and New York jurisdictions respectively. For 2022/23, this measure represents our current estimate, since local financial statements have yet to be prepared.

	2023 £m	2022 £m	2021 £m
Underlying IFRS operating profit for New England segment	819	886	727
Underlying IFRS operating profit for New York segment	874	706	722
Weighted average £/$ exchange rate	$1.216	$1.348	$1.341

	New England			New York		
	2023 $m	2022 $m	2021 $m	**2023 $m**	2022 $m	2021 $m
Underlying IFRS operating profit for US segments	**995**	1,194	974	**1,060**	951	969
Adjustments to convert to US GAAP as applied in our US OpCo entities						
Adjustment in respect of customer contributions	**(26)**	(35)	(28)	**(34)**	(30)	(31)
Pension accounting differences[1]	**39**	14	8	**12**	88	(2)
Environmental charges recorded under US GAAP	**(3)**	3	(14)	**58**	42	(94)
Storm costs and recoveries recorded under US GAAP	**(54)**	(75)	(86)	**(39)**	(8)	(27)
Removal of partial year Rhode Island in year of disposal	**(65)**	–	–	**–**	–	–
Other regulatory deferrals, amortisation and other items	**(217)**	(253)	58	**86**	46	43
Results for US regulated OpCo entities, aggregated under US GAAP[2]	**669**	848	912	**1,143**	1,089	858
Adjustments to determine regulatory operating profit used in US RoE						
Adjustment for COVID-19-related provision for bad and doubtful debts[3]	**–**	–	(44)	**(171)**	–	171
Net other	**113**	71	(14)	**171**	85	(16)
Regulatory operating profit	**782**	919	854	**1,143**	1,174	1,013
Pensions[1]	**(17)**	7	(31)	**219**	107	(13)
Regulatory interest charge	**(176)**	(227)	(221)	**(339)**	(316)	(314)
Regulatory tax charge	**(159)**	(179)	(155)	**(279)**	(263)	(185)
Regulatory earnings used to determine US RoE	**430**	520	447	**744**	702	501

1. Following a change in US GAAP accounting rules, an element of the pensions charge is reported outside operating profit with effect from 2019.
2. Based on US GAAP accounting policies as applied by our US regulated OpCo entities.
3. US RoE included an adjustment reflecting our expectation for future recovery of COVID-19-related bad and doubtful debt costs in 2020/21. The adjustment is being unwound as regulated assets are recognised in respect of the same debts in our US GAAP accounts.

	New England			New York		
	2023 $m	2022 $m	2021 $m	**2023 $m**	2022 $m	2021 $m
US equity base (average for the year)	**5,155**	6,253	5,960	**8,670**	7,946	7,452
US jurisdiction RoE	**8.3%**	8.3%	7.5%	**8.6%**	8.8%	6.7%

Information on differences between IFRS and regulatory balances

There are certain significant assets and liabilities included in our IFRS balance sheet, which are treated differently in the analysis below and to which we draw readers' attention. Our UK OpCo RAVs are different to the IFRS carrying value of PP&E and intangibles in these entities. This is a result of the annual indexation (inflationary uplift) adjustment applied to RAV compared with the IFRS value of these assets (which are held at amortised cost) or in the case of UK ED, the result of acquisition fair value adjustments (where PP&E at acquisition has been valued above RAV). In addition, under IFRS we recognise liabilities in respect of US environmental remediation costs, and pension and OPEB costs. For regulatory purposes, these are not shown as obligations because we are entitled to full recovery of costs through our existing rate plans. The impact of US tax reform in 2017/18 which resulted in a reduction in IFRS deferred tax liabilities, and from a regulatory perspective remains as a future obligation, results in a regulatory liability within US rate base. In our Value Added calculation, we recognised an asset in 2021/22 to reflect expected future recovery of £202 million COVID-19-related provision for bad and doubtful debts. In 2022/23 the expected recovery of these bad debts has been recognised as a regulated asset in our US operating companies. Regulatory IOUs which reflect net over- or under-recoveries compared with our regulatory allowances are treated within this table as obligations but do not qualify for recognition as liabilities (or assets) under IFRS. The decrease in regulatory assets and other balances and the decrease in net debt as a result of the disposals of NECO and our UK Gas Transmission and Metering business along with associated transaction costs have been excluded when calculating the in-year Value Added for 2022/23. However, these balances are included within amounts reported as at 31 March 2022. Adjusted net debt movements exclude movements on derivatives which are designated in cash flow hedging arrangements and for which there is no corresponding movement in total assets and other balances. Within our Value Added calculation, total assets and other balances, goodwill and adjusted net debt movement all exclude the impact of reclassifications to held for sale for the UK Gas business in 2021/22. Separation and transaction costs related to the disposal of these entities are also excluded from in-year 2021/22 Value Added and have been released to offset against the proceeds on disposal of these businesses received during 2022/23.

Asset growth, Value Added, Value Added per share and Value Growth

To help readers' assessment of the financial position of the Group, the table below shows an aggregated position for the Group, as viewed from a regulatory perspective. The asset growth and Value Added measures included in the table below are calculated in part from financial information used to derive measures sent to and used by our regulators in the UK and US, and accordingly inform certain of the Group's regulatory performance measures, but are not derived from, and cannot be reconciled to, IFRS. These alternative performance measures include regulatory assets and liabilities and certain IFRS assets and liabilities of businesses that were classified as held for sale under IFRS 5.

Asset growth is the annual percentage increase in our RAV and rate base and other business balances (including the assets of NGV and NG Partners) calculated at constant currency.

Value Added is a measure that reflects the value to shareholders of our cash dividend and the growth in National Grid's regulated and non-regulated assets (as measured in our regulated asset base, for regulated entities), and corresponding growth in net debt. It is a key metric used to measure our performance and underpins our approach to sustainable decision making and long-term management incentive arrangements.

Value Added is derived using our regulated asset base and, as such, it is not practical to provide a meaningful reconciliation from this measure to an equivalent IFRS measure due to the reasons set out for our regulated asset base. However, the calculation is set out below. Value Added per share is calculated by dividing Value Added by the weighted average number of shares (3,659 million) set out in note 8 to the financial statements.

Value Growth of 12.4% (2022: 12.8%) is derived from Value Added by adjusting Value Added to normalise for our estimate of the long-run inflation rate (3% RPI for RIIO-1 and our RPI-linked net debt; 2% CPIH for RIIO-2). In 2023, the numerator for Value Growth was £2,902 million (2022: £2,730 million). The denominator is Group equity as used in the Group RoE calculation, adjusted for foreign exchange movements.

The tables below include related balances and net debt up to the dates of disposal for NECO and the UK Gas Transmission and Metering business, despite being reclassified as held for sale under IFRS.

£m	2022/23				
	31 March 2023	Disposal of NECO and UK Gas Transmission[1]	31 March 2022	Value Added	Change
UK RAV	28,205	(6,989)	31,577	3,617	11%
US rate base	23,038	(2,476)	23,628	1,886	8%
Total RAV and rate base	51,243	(9,465)	55,205	5,503	10%
National Grid Ventures and other	6,604	(143)	5,374	1,373	26%
Total assets (used to calculate asset growth)	57,847	(9,608)	60,579	6,876	11%
UK other regulated balances[2]	(255)	(141)	75	(189)	
US other regulated balances[3]	3,226	(250)	2,792	684	
Other balances	108	1,239	(808)	(323)	
Total assets and other balances	60,926	(8,760)	62,638	7,048	
Cash dividends				1,607	
Adjusted net debt movement[1]				(3,848)	
Value Added				4,807	

1. The disposal of NECO on 25 May 2022 and UK Gas Transmission on 31 January 2023 resulted in an increase in assets which has been excluded from the total change in the year used to calculate asset growth and Value Added for 2022/23. The decrease in RAV and rate base and other regulated balances relating to the businesses disposed along with the net debt disposed and cash proceeds received (plus associated transaction costs) are excluded from the total adjusted net debt movement in the year used to calculate asset growth and Value Added.
2. Includes totex-related regulatory IOUs of £502 million, under-recovered timing balances of £246 million.
3. Includes assets for construction work-in-progress of £2,319 million, other regulatory assets related to timing and other cost deferrals of £771 million and net working capital liabilities of £136 million.

£m	2021/22				
	31 March 2022	Acquisition of WPD[1]	31 March 2021	Value Added	Change
UK RAV	31,593	8,476	20,876	2,241	11%
US rate base	22,178	—	20,687	1,491	7%
Total RAV and rate base	53,771	8,476	41,563	3,732	9%
National Grid Ventures and other	5,226	—	4,920	306	6%
Total assets (used to calculate asset growth)	58,997	8,476	46,483	4,038	9%
UK other regulated balances[2]	84	230	(140)	(6)	
US other regulated balances[3]	2,621	—	1,995	626	
Other balances	(878)	(168)	(336)	(374)	
Total assets and other balances	60,824	8,538	48,002	4,284	
Cash dividends				922	
Adjusted net debt movement[1]				(1,373)	
Value Added				3,833	

1. The acquisition of WPD on 14 June 2021 resulted in an increase in assets which has been excluded from the total change in the year used to calculate asset growth and Value Added for 2021/22. The increase in goodwill and intangible licence recognised on the acquisition of WPD and the associated fair value of net debt acquired and cash proceeds (along with associated transaction costs) are excluded from the total adjusted net debt movement in the year used to calculate asset growth and Value Added.
2. Includes totex-related regulatory IOUs of £271 million, under-recovered timing balances of £346 million and under-recovered legacy balances related to previous price controls of £9 million.
3. Includes assets for construction work-in-progress of £2,139 million, other regulatory assets related to timing and other cost deferrals of £759 million and net working capital liabilities of £277 million.

Figures relating to prior periods have, where appropriate, been re-presented at constant currency, for opening balance adjustments following the completion of the UK regulatory reporting pack process and finalisation of US balances.

Regulatory gearing

Regulatory gearing is a measure of how much of our investment in RAV and rate base and other elements of our invested capital (including our investments in NGV, UK property and other assets and US other assets) is funded through debt. Comparative amounts as at 31 March 2022 are presented at historical exchange rates and have not been restated for opening balance adjustments.

As at 31 March	2023 £m	2022 £m	
UK RAV	28,205	31,593	
US rate base	23,038	22,178	
Other invested capital included in gearing calculation	6,604	5,226	
Total assets included in gearing calculation	57,847	58,997	
Net debt (including 100% of hybrid debt and held for sale)	(40,973)	(48,043)	change
Group gearing (based on 100% of net debt including held for sale)	71%	81%	(10% pts)
Group gearing (excluding 50% of hybrid debt from net debt) including held for sale	69%	80%	(11% pts)

Commentary on consolidated financial statements

for the year ended 31 March 2022

In compliance with SEC rules, we present a summarised analysis of movements in the income statement and an analysis of movements in adjusted operating profit (for the continuing Group) by operating segment. This should be read in conjunction with the 31 March 2023 Financial review included on pages 53 – 65.

Analysis of the income statement for the year ended 31 March 2022

Revenue

Revenue from continuing operations for the year ended 31 March 2022 increased by £4,595 million to £18,260 million. Revenues were driven by a £1,437 million increase in UK Electricity System Operator (mainly as a result of higher balancing service pass-through costs), a £1,482 million increase from having acquired a new business, WPD (UK Electricity Distribution), during the year, a £956 million increase in New York and a £336 million increase in New England (mainly from higher commodity pass-through costs, but also rate increases and year-on-year timing net over-recoveries). Revenue from NGV increased by £238 million, related to higher interconnector income. Other activities revenues increased, driven by NG Partners gains and higher property site sales.

Operating costs

Operating costs from continuing activities for the year ended 31 March 2022 of £14,447 million were £3,209 million higher than prior year. This increase in costs excludes the exceptional items and remeasurements impacts, which is discussed below. Operating costs were driven by higher UK Electricity System Operator balancing service pass-through costs up £1,277 million and increased gas and electricity purchases (mostly on behalf of our US customers) up £924 million, with the underlying cause of both of these being higher global energy prices. Higher depreciation as a result of continued asset investment was up £345 million compared with 2020/21. The acquisition of WPD (UK Electricity Distribution) in June 2021 increased other costs (excluding depreciation) by £415 million. Provisions for bad and doubtful debts of £167 million were recorded in the year, £158 million lower than 2020/21, principally as a result of the adverse impact of COVID-19 in 2020/21.

Net finance costs

Net finance costs (excluding remeasurements) for 2021/22 were £1,081 million, up £216 million, driven by interest costs of £130 million for debt acquired with WPD (UK Electricity Distribution), £99 million of interest and fees for £8 billion of borrowings used to finance the acquisition, a £145 million impact of higher inflation on RPI-linked debt and higher borrowings from organic asset growth, partly offset by favourable non-debt interest income (pensions, capitalised interest and other interest income on US investments) compared with 2020/21.

Tax

The tax charge on profits before exceptional items and remeasurements of £669 million was £335 million higher than 2020/21. This was mainly related to the impact of the acquisition of WPD (UK Electricity Distribution) resulting in a higher level of profit before tax in 2021/22 compared with 2020/21. The tax charge in 2021/22 included additional deferred tax charges in the UK for the change in the UK corporation tax rate and the unitary state deferred tax remeasurement related to the sale of our Rhode Island business in the US.

Exceptional items and remeasurements

In 2021/22, exceptional items included £417 million of gains related to disposal of our investment in St William and a US environmental insurance recovery of £38 million, partly offset by a £66 million charge (2021: £50 million) in relation to our new operating model implementation costs and a £223 million (2021: £24 million) charge in relation to transaction and separation costs (principally in relation to the acquisition of WPD and the planned disposal of NECO and the UK Gas Transmission business). In 2020/21 a £14 million credit relating to the release of environmental provisions for one of our Superfund sites for which the original provision was treated as an exceptional item.

An exceptional deferred tax charge of £458 million was made in 2021/22 arising as a result of the UK corporation tax rate change, effective from April 2023.

Remeasurement gains of £392 million were recognised on commodity contracts in 2021/22 compared with gains of £34 million in 2020/21.

Finance costs for the year ended 31 March 2021 included a net gain of £59 million on financial remeasurements of derivative financial instruments and financial assets at fair value through profit or loss, compared to a net gain of £70 million on financial remeasurements in 2020/21.

Joint ventures and associates

Share of post-tax results of joint ventures and associates before exceptional items for 2021/22 were £148 million compared with £66 million in 2020/21, principally due to higher revenues in our BritNed and Nemo Link interconnector joint ventures in the UK.

Profit after tax from discontinued operations

Adjusted profit after tax from discontinued operations was broadly flat year on year at £344 million in 2021/22 compared with £340 million in 2020/21. Statutory profit after tax from discontinued operations also included exceptional operating costs and remeasurements of £29 million in 2021/22 compared with £3 million in 2020/21. The statutory tax charge in 2021/22 included a £145 million exceptional item related to deferred tax charges for the change in the UK corporation tax rate.

Adjusted earnings and EPS from continuing operations

Adjusted earnings and adjusted EPS, which exclude exceptional items and remeasurements, are provided to reflect the Group's results on an 'adjusted profit' basis, described further in note 5. See page 148 for a reconciliation of adjusted basic EPS to EPS.

The above earnings performance translated into adjusted EPS in 2021/22 of 61.4p, compared with 36.7p in 2020/21. Including discontinued operations, adjusted EPS in 2021/22 of 71.0p, compared with 46.4p in 2020/21.

Exchange rates

Our financial results are reported in sterling. Transactions for our US operations are denominated in dollars, so the related amounts that are reported in sterling depend on the dollar to sterling exchange rate. The table below shows the average and closing exchange rates of sterling to US dollars.

	2021/22	2020/21	% change
Weighted average (income statement)	**1.35**	1.34	1%
Year end (statement of financial position)	**1.31**	1.38	5%

The movement in foreign exchange during 2021/22 has resulted in a £69 million decrease in revenue, a £7 million decrease in adjusted operating profit and a £8 million decrease in underlying operating profit.

Analysis of the adjusted operating profit by segment for the year ended 31 March 2022

UK Electricity Transmission

For 2021/22, revenue in the UK Electricity Transmission segment increased by £61 million to £2,035 million, but adjusted operating profit decreased by £27 million to £1,067 million. Revenue was higher under the first year of RIIO-T2, with indexation and lower totex capitalisation rates (increased 'fast money') offsetting lower returns and no repeat of the adverse MOD adjustment in the final year of RIIO-T1. Revenue increased despite £127 million adverse year-on-year timing movements, mainly from under-recoveries of pass-through costs, inflation true-ups and also the return of prior period balances. Regulated controllable costs were higher as a result of additional workload agreed for RIIO-T2, inflationary increases and the non-recurrence of favourable credits in 2020/21, which more than offset efficiency savings and the absence of prior period COVID-19-related costs. The increase in depreciation and amortisation reflects continued investment. Other costs were higher, mainly related to a £10 million settlement related to Western Link.

Capital expenditure increased by £211 million compared with 2020/21 to £1,195 million primarily due to LPT2 and Hinkley Seabank, partly offset by lower Smartwires spend.

UK Electricity Distribution

This business (previously called WPD) was acquired by National Grid in June 2021. For the 9.5 months owned during 2021/22, it generated revenue of £1,482 million and adjusted operating profit of £909 million. Capital expenditure for the period owned in 2021/22 was £899 million.

UK Electricity System Operator

For 2021/22, revenue in the UK Electricity System Operator segment increased by £1,437 million to £3,455 million but this was principally as the result of higher pass-through costs, which increased from £1,911 million in 2020/21 to £3,215 million in 2021/22 (principally reflecting higher balancing service costs due to increased global energy prices and higher intervention costs required to balance the grid). Excluding pass-through costs, net revenue was £133 million higher, as the result of £47 million timing under-recoveries in 2021/22 compared to £130 million under-recoveries in 2020/21 (mainly favourable TNUoS recoveries, pass through costs and inflation true-ups). Regulated controllable costs including pensions were £33 million higher from increased workload to deliver RIIO-2. Depreciation and amortisation was £37 million higher due to investment in transformational IT systems and asset impairments.

Capital expenditure increased by £20 million compared with 2020/21, as a result of investment in IT projects including infrastructure and security.

New England

Revenue in the New England segment increased by £336 million to £4,550 million. Of this increase, £266 million was due to an increase in commodity pass-through costs charged on to customers, and £21 million was due to year-on-year timing movements as a result of under-collection of revenues compared with our regulatory allowances in 2021/22. Adjusted operating profit increased by £132 million (22%) to £743 million. Excluding pass-through costs and timing swings, underlying net revenue increased by £91 million (4%) principally reflecting increased rates in Massachusetts Gas and Massachusetts Electric. Regulated controllable costs were broadly flat with increased workload and inflationary impacts being offset by efficiency savings. Provisions for bad and doubtful debts were £82 million lower, following the high charge in 2020/21 as a result of the impact of COVID-19 restrictions on our collection activities. Depreciation and amortisation was £24 million lower mainly due to NECO being classified as held for sale for the whole of 2021/22. Other costs were £44 million higher as a result of environmental provision increases and higher customer-funded works.

Capital expenditure increased by £124 million to £1,561 million, reflecting higher spend on gas assets driven by decreased COVID-19 restrictions compared with 2020/21 and higher investment in electric assets related to asset condition.

New York

Revenue in the New York segment increased by £956 million to £5,561 million. Of this increase, £692 million was due to an increase in commodity pass-through costs charged on to customers and a £138 million increase due to year-on-year timing movements (as a result of year-on-year over-collection of revenues compared with our regulatory allowances). Adjusted operating profit increased by £115 million (17%) to £780 million. Excluding pass-through costs and timing swings, underlying net revenue increased by £126 million (4%) principally from the benefits of rate case increases in KEDNY, KEDLI and Niagara Mohawk. Regulated controllable costs were lower with increased workload and IT costs and also inflationary impacts more than offset by cost efficiency savings, favourable credits in 2021/22 and the non-recurrence of costs arising in 2020/21. Provisions for bad and doubtful debts decreased by £111 million, driven by 2020/21's additional provisions for receivables related to the impact of COVID-19. Depreciation and amortisation increased due to the growth in assets and the accelerated depreciation of certain gas assets and IT systems. Other costs were higher due to an increase in environmental provisions (mostly driven by inflation), increased property taxes, cost of removal and customer-funded work, partly offset by a historical property tax refund.

Capital expenditure increased by £222 million to £1,960 million, as a result of accelerated leak-prone pipe replacement work in our gas businesses, investment in Northwest Nassau connection, higher investment in our electric assets to reinforce the network and increase capacity and reliability, investment in SmartPath Connect and Energy Highway, and decreased COVID-19 restrictions compared with 2020/21.

National Grid Ventures (NGV)

Revenue in the NGV segment increased by £238 million to £1,024 million, driven by higher interconnector revenues, which benefitted from a full year's contribution from IFA2 and earlier than expected commissioning of NSL, along with higher commodity prices and increased revenues in our onshore renewables in the US. These were partly offset by a write-down for assets damaged by a fire at Sellindge in September 2021, which caused an unplanned outage for our IFA interconnector.

Capital investment in NGV was significantly higher than in 2020/21, with continued investment in the Viking Link interconnector (Denmark), increased spend on our Grain LNG facility, partly offset by completion of the NSL interconnector (Norway) this year, but a £373 million step up in US Ventures' capital investment, including purchase of an over 3 GW potential offshore wind seabed lease in New York.

Other activities

In 2021/22, adjusted operating profit of £21 million compared with net losses of £68 million in 2020/21, including benefits from NG Partners fair value gains and the release of an aged liability for unclaimed dividends in the Group. Capital investment was higher driven by £93 million NG Partners investments in 2021/22 compared with £38 million in 2020/21, partly offset by £16 million lower spend in our UK property business.

Discontinued operations – UK Gas Transmission and Metering

In 2021/22, revenue in the UK Gas Transmission segment increased by £252 million to £1,374 million and adjusted operating profit increased by £155 million to £654 million. Revenue was impacted by £164 million higher pass-through costs and £16 million favourable year-on-year timing swings. Net revenue (adjusted for timing) was £72 million higher, reflecting new prices under RIIO-T2 and the impact of the change to CPIH and regulatory depreciation profile change under the new price control. Regulated controllable costs (including pensions) and other costs were £29 million higher, principally from customer-funded works. Depreciation and amortisation was £96 million lower due to being classified as held for sale in 2021/22.

Capital expenditure increased by £57 million to £261 million, mainly related to non-load spend, with increased work at St Fergus, Peterborough and Huntingdon compressor stations, increased investment at Hatton and higher cyber spend compared with 2020/21.

Definitions and glossary of terms

Our aim is to use plain English in this Annual Report and Accounts. However, where necessary, we do use a number of technical terms and abbreviations. We summarise the principal ones below, together with an explanation of their meanings. The descriptions below are not formal legal definitions. Alternative and regulatory performance measures are defined on pages 238 – 252.

A

Adjusted interest
A measure of the interest charge of the Group, calculated by making adjustments to the Group reported interest charge.

Adjusted net debt
A measure of the indebtedness of the Group, calculated by making adjustments to the Group reported borrowings, including adjustments made to include elements of pension deficits and exclude elements of hybrid debt financing.

Adjusted results (also referred to as headline results)
Financial results excluding the impact of exceptional items and remeasurements that are treated as discrete transactions under IFRS and can accordingly be classified as such. This is a measure used by National Grid management that forms part of the incentive target set annually for remunerating certain Executive Directors, and further details of these items are included in note 5 to the financial statements.

American Depositary Shares (ADSs)
Securities of National Grid listed on the NYSE each of which represents five ordinary shares. They are evidenced by American Depositary Receipts or ADRs.

Annual General Meeting (AGM)
Meeting of shareholders of the Company held each year to consider ordinary and special business as provided in the Notice of AGM.

ASTI
The Accelerated Strategic Transmission Investment framework to connect 50GW of offshore generation by 2030, announced by Ofgem in December 2022.

B

Board
The Board of Directors of the Company (for more information, see pages 70 and 71).

bps
Basis point (bp) is a unit that is equal to 1/100th of 1% and is typically used to denote the movement in a percentage-based metric such as interest rates or RoE. A 0.1% change in a percentage represents 10 basis points.

BritNed
BritNed Development Limited, a joint venture company in which National Grid and TenneT, the Dutch national transmission system operator, each hold 50% of the shares.

C

Called-up share capital
Shares (common stock) that have been issued and have been fully paid for.

Capital tracker
In the context of our US rate plans, this is a mechanism that allows the recovery of the revenue requirement of incremental capital investment above that embedded in base rates, including depreciation, property taxes and a return on the incremental investment.

Carbon capture usage and storage (CCUS)
The process of capturing carbon dioxide (CO_2) for the purpose of recycling it for further usage and/or determining safe and permanent storage options for it.

Carrying value
The amount at which an asset or a liability is recorded in the Group's statement of financial position and the Company's balance sheet.

Child risk
A management team or directorate level owned or managed risk that has a supportive or contributing relationship to a GPR or other risk at a higher escalation level.

The Company, the Group, National Grid, we, our or us
We use these terms to refer to either National Grid plc itself or to National Grid plc and/or all or certain of its subsidiaries, depending on context.

Consolidated financial statements
Financial statements that include the results and financial position of the Company and its subsidiaries together as if they were a single entity.

Constant currency
Constant currency basis refers to the reporting of the actual results against the results for the same period last year, which, in respect of any US$ currency denominated activity, have been translated using the average US$ exchange rate for the year ended 31 March 2023, which was $1.2156 to £1. The average rate for the year ended 31 March 2022 was $1.3483 to £1, and for the year ended 31 March 2021 was $1.3410 to £1. Assets and liabilities as at 31 March 2022 have been retranslated at the closing rate at 31 March 2023 of $1.2337 to £1. The closing rate for the balance sheet date 31 March 2022 was $1.3144 to £1.

Contingent liabilities
Possible obligations or potential liabilities arising from past events for which no provision has been recorded, but for which disclosure in the financial statements is made.

COP26
The 26th UN Climate Change Conference of the Parties which the UK hosted at the Scottish Event Campus in Glasgow from 1 – 12 November 2021. The climate talks brought together heads of state, climate experts and campaigners to agree coordinated action to tackle climate change. The Company was a principal partner of COP26.

COP27
The 27th UN Climate Change Conference of the Parties held in Sharm El Sheikh in Egypt in November 2022 at which the Company gave various keynote speeches.

CPIH
The UK Consumer Prices Index including Owner Occupiers' Housing Costs as published by the Office for National Statistics.

D

DB
Defined benefit, relating to our UK or US (as the context requires) final salary pension schemes.

Deferred tax
For most assets and liabilities, deferred tax is the amount of tax that will be payable or receivable in respect of that asset or liability in future tax returns as a result of a difference between the carrying value for accounting purposes in the statement of financial position or balance sheet and the value for tax purposes of the same asset or liability.

DESNZ
The Department for Energy Security and Net Zero, the UK government department established in February 2023 and focused on the energy portfolio of the former Department for Business, Energy and Industrial Strategy (BEIS).

Deposit agreement
The amended and restated Deposit agreement entered into between National Grid plc, the Depositary and all the registered holders from time to time of ADRs, pursuant to which ADSs have been issued, dated 23 May 2013, and any related agreement.

Depositary
The Bank of New York Mellon acting as ADS Depositary.

Derivative
A financial instrument or other contract where the value is linked to an underlying index, such as exchange rates, interest rates or commodity prices. In most cases, we exclude contracts for the sale or purchase of commodities that are used to supply customers or for our own needs from this definition.

Directors/Executive Directors/ Non-executive Directors
The Directors/Executive Directors and Non-executive Directors of the Company, whose names are set out on pages 70 and 71 of this document.

Distributed energy resources (DER)
Decentralised assets, generally located behind the meter, covering a range of technologies including solar, storage, electric vehicle charging, district heating, smart street lighting and combined heat and power.

Diversity, equity and inclusion (DEI)
National Grid is committed to creating a work environment where people are treated fairly and where everyone feels respected, valued and empowered to reach their full potential. Our mission is to build a business that represents, reflects and celebrates the cultures and communities we serve.

Dollars or $
Except as otherwise noted, all references to dollars or $ in this Annual Report and Accounts relate to the US currency.

Dth
Decatherm, being an amount of energy equal to 1 million British thermal units (BTUs), equivalent to approximately 293 kWh.

E

Earnings per share (EPS)
Profit for the year attributable to equity shareholders of the Company allocated to each ordinary share.

Electricity System Operator (ESO)
The party responsible for the long-term strategy, planning and real-time operation (balancing supply and demand) of the electricity system in Great Britain.

Employee engagement
A key performance indicator (KPI), based on the percentage of favourable responses to certain indicator questions repeated in each employee survey. It is used to measure how employees think, feel and act in relation to National Grid. Research shows that a highly engaged workforce leads to increased productivity and employee retention. We use employee engagement as a measure of organisational health in relation to business performance.

Employee Resource Group (ERG)
A voluntary, employee-led group whose aim is to foster a diverse, inclusive workplace, aligned with the organisations they serve.

Estate Tax Convention
The convention between the US and the UK for the avoidance of double taxation with respect to estate and gift taxes.

EU
The EU is the economic and political union of 27 member states located in Europe. The UK left the European Union on 31 January 2020.

Exchange Act
The US Securities Exchange Act 1934, as amended.

F

FERC
The US Federal Energy Regulatory Commission.

Finance lease
A lease where the asset is treated as if it was owned for the period of the lease, and the obligation to pay future rentals is treated as if they were borrowings. Also known as a capital lease.

Financial year
For National Grid this is an accounting year ending on 31 March. Also known as a fiscal year.

FRS
A UK Financial Reporting Standard as issued by the UK Financial Reporting Council (FRC). It applies to the Company's individual financial statements on pages 211 to 217, which are prepared in accordance with FRS 101.

Funds from Operations (FFO)
A measure used by the credit rating agencies of the operating cash flows of the Group after interest and tax but before capital investment.

G

Grain LNG
National Grid Grain LNG Limited.

Great Britain (GB)
England, Wales and Scotland.

Green capital investment (green capex)
Capital expenditure invested in decarbonisation of energy systems and considered to be aligned with the principles of the EU Taxonomy legislation at the date of reporting.

Group Principal Risk (GPR)
A principal risk faced by the Company as monitored and assessed by the Board, details of which are set out on pages 20 to 24.

Group Value Growth
Group Value Growth is Group-wide Value Added expressed as a proportion of Group equity. See page 258 for an explanation of Value Added.

Group-wide Value Added
Normalised for assumed long-run inflation expressed as a proportion of Group equity.

GW
Gigawatt, an amount of power equal to 1 billion watts (10^9 watts).

GWh
Gigawatt hours, an amount of energy equivalent to delivering 1 billion watts (10^9 watts) of power for a period of one hour.

H

HMRC
HM Revenue & Customs, the UK tax authority.

HVDC
High-voltage, direct-current electric power transmission that uses direct current for the bulk transmission of electrical power, in contrast to the more common alternating current systems.

I

IAS or IFRS
An International Accounting Standard (IAS) or International Financial Reporting Standard (IFRS), as issued by the International Accounting Standards Board (IASB). IFRS is also used as the term to describe international generally accepted accounting principles as a whole.

Individual financial statements
Financial statements of a company on its own, not including its subsidiaries or joint ventures and associates.

Interest cover
A measure used by the credit rating agencies, calculated as FFO plus adjusted interest, divided by adjusted interest.

J

Joint venture (JV)
A company or other entity that is controlled jointly with other parties.

K

KEDLI
KeySpan Gas East Corporation, also known as KeySpan Energy Delivery Long Island.

KEDNY
The Brooklyn Union Gas Company, also known as KeySpan Energy Delivery New York.

KPI
Key performance indicator.

kW
Kilowatt, an amount of power equal to 1,000 watts.

L

LIPA
The Long Island Power Authority.

LNG
Liquefied natural gas is natural gas that has been condensed into a liquid form, typically at temperatures at or below -161°C (-258°F).

Lost time injury (LTI)
An incident arising out of National Grid's operations that leads to an injury where the employee or contractor normally has time off for the following day or shift following the incident. It relates to one specific (acute) identifiable incident which arises as a result of National Grid's premises, plant or activities, and was reported to the supervisor at the time and was subject to appropriate investigation.

Lost time injury frequency rate (LTIFR)
The number of lost time injuries (LTIs) per 100,000 hours worked in a 12-month period.

M

MADPU
The Massachusetts Department of Public Utilities.

MPI
Multi-purpose interconnector, combining interconnection with off-shore wind.

MW
Megawatt, an amount of power equal to 1 million watts (10^6 watts).

MWh
Megawatt hours, an amount of energy equivalent to delivering 1 million watts (10^6 watts) of power for a period of one hour.

N

National Grid Partners (NGP)
The Company's venture investment and innovation business established in November 2018.

National Grid Renewables (NGR)
This business, which includes the renewables development company formerly known as Geronimo, is a leading developer of wind and solar generation based in Minneapolis in the US. National Grid acquired Geronimo in July 2019.

National Grid Ventures (NGV)
The Company's division that operates outside its core UK and US Regulated businesses, comprising a broad range of activities in the UK and US, including National Grid Renewables, electricity interconnectors, the Grain LNG terminal and energy metering, as well as being tasked with investment in adjacent businesses and distributed energy opportunities.

NECO
The Narragansett Electric Company, National Grid's electricity transmission and distribution service provider to, as well as a natural gas distribution company in, Rhode Island.

NECO Sale
The sale by National Grid to PPL of its subsidiary, The Narragansett Electric Company, which completed in May 2022.

Nemo Link
Nemo Link Limited, a joint venture company in which National Grid and Elia, the Belgian national transmission system operator, each hold 50% of the shares.

Net zero
Net zero means that a person, legal entity (such as a company), country or other body's own emissions of greenhouse gases are either zero or that its remaining greenhouse gas emissions are balanced by schemes to offset, through the removal of an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using technology like carbon capture and storage.

New England
The term refers to a region within the Northeastern US that includes the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont. National Grid's New England operations are primarily in the states of Massachusetts and Rhode Island.

NGED Acquisition
The acquisition by National Grid of Electricity Distribution (formerly know as WPD), which completed on 14 June 2021.

NGT Sale
The sale, agreed by the Company and announced on 27 March 2022, of a 60% equity stake in its UK Gas Transmission and legacy metering businesses to a consortium comprising Macquarie Infrastructure and Real Assets (MIRA) and British Columbia Investment Management Corporation which completed on 31 January 2023. The consortium also has an option on broadly similar terms to purchase the remaining 40%.

Northeastern US
The Northeastern region of the US, comprising the states of Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island and Vermont.

NYPSC
The New York Public Service Commission.

O

Ofgem
The UK Office of Gas and Electricity Markets is part of the UK Gas and Electricity Markets Authority (GEMA), which regulates the energy markets in the UK.

OPEB
Other post-employment benefits.

Ordinary shares
Voting shares entitling the holder to part ownership of a company. Also known as common stock. National Grid's ordinary shares have a nominal value of $12\frac{204}{473}$ pence following the share consolidation approved at the General Meeting of the Company held on 19 May 2017.

P

Paris Agreement
The agreement, also known as the Paris Climate Accord, within the United Nations Framework Convention on Climate Change dealing with greenhouse gas emissions mitigation, adaptation and finance starting in 2020, and adopted by consensus on 12 December 2015.

PPL
PPL Corporation, a US energy company headquartered in Pennsylvania.

Price control
The mechanism by which Ofgem sets restrictions on the amounts of revenue we are allowed to collect from customers in our UK businesses. The allowed revenues are intended to cover efficiently incurred operational expenditure, capital expenditure and financing costs, including a Return on Equity invested.

R

Rate base
The base investment on which the utility is authorised to earn a cash return. It includes the original cost of facilities, minus depreciation, an allowance for working capital and other accounts.

Rate plan
The term given to the mechanism by which a US utility regulator sets terms and conditions for utility service, including, in particular, tariffs and rate schedules. The term can mean a multi-year plan that is approved for a specified period, or an order approving tariffs and rate schedules that remain in effect until changed as a result of future regulatory proceedings. Such proceedings can be commenced through a filing by the utility or on the regulator's own initiative.

Regulated controllable costs
Total operating costs under IFRS less depreciation and certain regulatory costs where, under our regulatory agreements, mechanisms are in place to recover such costs in current or future periods.

Regulatory asset value (RAV)
The value ascribed by Ofgem to the capital employed in the relevant licensed business. It is an estimate of the initial market value of the regulated asset base at privatisation, plus subsequent allowed additions at historical cost, less the deduction of annual regulatory depreciation. Deductions are also made to reflect the value realised from the disposal of certain assets that formed part of the regulatory asset base. It is also indexed to the RPI to allow for the effects of inflation.

Regulatory IOUs
Net under/over-recoveries of revenue from output-related allowance changes, the totex incentive mechanism, legacy price control cost true-up and differences between allowed and collected revenues.

Retained cash flow (RCF)
A measure of the cash flows of the Group used by the credit rating agencies. It is calculated as funds from operations less dividends paid and costs of repurchasing scrip shares.

Revenue decoupling
The term given to the elimination of the dependency of a utility's revenue on the volume of gas or electricity transported. The purpose of decoupling is to encourage energy-efficiency programmes by eliminating the disincentive a utility otherwise has to such programmes.

RIIO
Revenue = Incentives + Innovation + Outputs, the regulatory framework for energy networks issued by Ofgem.

RIIO-T1
The eight-year regulatory framework for transmission networks that was implemented in the eight-year price controls started on 1 April 2013.

RIIO-T2
The five-year regulatory framework for transmission networks issued by Ofgem which started on 1 April 2021.

RIIO-ED1
The eight-year regulatory framework for electricity distribution networks issued by Ofgem which started on 1 April 2015.

RIIO-ED2
The five-year regulatory framework for electricity distribution networks issued by Ofgem which started on 1 April 2023.

RPI
The UK retail price index as published by the Office for National Statistics.

S

Scope 1 greenhouse gas emissions
Scope 1 emissions are direct greenhouse gas emissions that occur from sources that are owned or controlled by the Company. Examples include emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.

Scope 2 greenhouse gas emissions
Scope 2 emissions are greenhouse gas emissions from the generation of purchased electricity consumed by the Company. Purchased electricity is defined as electricity, heat, steam or cooling that is purchased or otherwise brought into the organisational boundary of the Company. Scope 2 emissions physically occur at the facility where electricity is generated.

Scope 3 greenhouse gas emissions
Scope 3 emissions are indirect greenhouse gas emissions as a consequence of the operations of the Company, but are not owned or controlled by the Company, such as emissions from third-party logistics providers, waste management suppliers, travel suppliers, employee commuting and combustion of sold gas by customers.

SEC
The US Securities and Exchange Commission, the financial regulator for companies with registered securities in the US, including National Grid and certain of its subsidiaries.

SF_6
Sulphur hexafluoride is an inorganic, colourless, odourless and non-flammable greenhouse gas. SF_6 is used in the electricity industry as a gaseous dielectric medium for high-voltage circuit breakers, switchgear and other electrical equipment. The Kyoto Protocol estimated that the global warming potential over 100 years of SF_6 is 23,900 times more potent than that of CO_2.

Share premium
The difference between the amount shares are issued for and the nominal value of those shares.

Strategic Infrastructure (SI)
The Group's new business unit, effective 1 April 2023, which will deliver UK ET projects through the ASTI framework.

Subsidiary
A company or other entity that is controlled by National Grid plc.

Swaption
A swaption gives the buyer, in exchange for an option premium, the right, but not the obligation, to enter into an interest-rate swap at some specified date in the future. The terms of the swap are specified on the trade date of the swaption.

T

Task Force on Climate-related Financial Disclosures (TCFD)
A body established in 2015 comprising 31 members from across the G20, whose role is to develop recommendations for more informed investment and enable stakeholders to better understand the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risk.

Tax Convention
The income tax convention between the US and the UK.

Taxes borne
Those taxes that represent a cost to the Company and are reflected in our results.

Taxes collected
Those taxes that are generated by our operations but do not affect our results. We generate the commercial activity giving rise to these taxes and then collect and administer them on behalf of tax authorities.

TCFD recommendations or recommended disclosures
The 11 recommended disclosures set out in the June 2017 TCFD report entitled 'Recommendations of the Task Force on Climate-related Financial Disclosures'.

Tonne
A unit of mass equal to 1,000 kilogrammes, equivalent to approximately 2,205 pounds.

Tonnes carbon dioxide equivalent (tCO_2e)
A measure of greenhouse gas emissions in terms of the equivalent amount of carbon dioxide.

Totex
Total expenditure, comprising capital and operating expenditure.

Treasury shares
Shares that have been repurchased but not cancelled. These shares can then be allotted to meet obligations under the Company's employee share schemes.

U

UK
The United Kingdom, comprising England, Wales, Scotland and Northern Ireland.

UK Corporate Governance Code (the 'Code')
Guidance, issued by the Financial Reporting Council in 2018, on how companies should be governed, applicable to UK listed companies, including National Grid, in respect of reporting periods starting on or after 1 January 2019.

UK Electricity Distribution (UK ED)
National Grid's UK electricity distribution business, formerly known as WPD, comprising Western Power Distribution Holding Company Limited and its subsidiaries. The group is the UK's largest electricity distribution business and includes four distribution network operators.

UK Electricity Transmission (UK ET)
National Grid's UK electricity transmission business.

UK GAAP
Generally accepted accounting practices in the UK. These differ from IFRS and from US GAAP.

UK Gas Transmission (UK GT)
National Grid's UK gas transmission business.

Underlying EPS
Underlying results for the year attributable to equity shareholders of the Company allocated to each ordinary share.

Underlying results
The financial results of the Company, adjusted to exclude the impact of exceptional items and remeasurements that are treated as discrete transactions under IFRS and can accordingly be classified as such, and to take account of volumetric and other revenue timing differences arising due to the in-year difference between allowed and collected revenues as well as major storm costs (where these are above $100 million threshold in a given year).

US
The United States of America, its territories and possessions; any state of the United States and the District of Columbia.

US GAAP
Generally accepted accounting principles in the US. These differ from IFRS and from UK GAAP.

US state regulators (state utility commissions)
In the US, public utilities' retail transactions are regulated by state utility commissions, including the New York Public Service Commission (NYPSC), and the MADPU.

V

Value Added
Value Added is a measure to capture the value created through investment attributable to equity holders, being the change in total regulated and non-regulated assets including goodwill (both at constant currency) plus the cash dividend paid in the year plus share repurchase costs less the growth in net debt (at constant currency). This is then presented on an absolute and a per share basis.

Value Growth
Value Growth is the Value Added, adjusted to normalise for a 3% long-run RPI inflation rate, expressed as a proportion of Group equity. See page 60.

Want more information or help?

Equiniti

For queries about ordinary shares:

0800 169 7775
This is a Freephone number from landlines within the UK; mobile costs may vary. Lines are open 8.30am to 5.30pm, Monday to Friday, excluding public holidays. If calling from outside the UK: +44 (0) 800 169 7775. Calls from outside the UK will be charged at the applicable international rate.

Visit help.shareview.co.uk for information regarding your shareholding (from here you will also be able to email a query securely).

National Grid Share Register
Equiniti
Aspect House
Spencer Road, Lancing
West Sussex BN99 6DA

The Bank of New York Mellon

For queries about ADS:

1-800-466-7215
If calling from outside the US:
+1-201-680-6825

www.mybnymdr.com
Email:
shrrelations@cpushareownerservices.com

BNY Mellon Shareowner Services
P.O. Box 43006
Providence RI 02940-3078

Further information about National Grid, including share price and interactive tools, can be found on our website: nationalgrid.com/investors

Beware of share fraud

Investment scams are often sophisticated and difficult to spot. Shareholders are advised to be wary of any unsolicited advice or offers, whether over the telephone, through the post or by email. If you receive any unsolicited communication, please check that the company or person contacting you is properly authorised by the Financial Conduct Authority (FCA) before getting involved. Be ScamSmart and visit fca.org.uk/scamsmart. You can report calls from unauthorised firms to the FCA by calling 0800 111 6768.

Financial calendar

The following dates have been announced or are indicative:

18 May 2023	2022/23 full-year results
1 June 2023	Ordinary shares and ADRs go ex-dividend for 2022/23 final dividend
2 June 2023	Record date for 2022/23 final dividend
8 June 2023	Scrip reference price announced for 2022/23 final dividend
10 July 2023	2023 AGM
12 July 2023 (5pm London time)	Scrip election date for 2022/23 final dividend
9 August 2023	2022/23 final dividend paid to qualifying shareholders
9 November 2023	2023/24 half-year results
22 November 2023	ADRs go ex-dividend for 2023/24 interim dividend
23 November 2023	Ordinary shares go ex-dividend for 2023/24 interim dividend
24 November 2023	Record date for 2023/24 interim dividend
30 November 2023	Scrip reference price announced
11 December 2023 (5pm London time)	Scrip election date for 2023/24 interim dividend
11 January 2024	2023/24 interim dividend paid to qualifying shareholders

Dividends

The Directors are recommending a final dividend of 37.60 pence per ordinary share ($2.3459 per ADS) to be paid on 9 August 2023 to shareholders on the register as at 2 June 2023. Further details on dividend payments can be found on page 230. If you live outside the UK, you may be able to request that your dividend payments are converted into your local currency.

Under the Deposit agreement, a fee of up to $0.05 per ADS can be charged for any cash distribution made to ADS holders, including cash dividends. ADS holders who receive cash in relation to the 2022/23 final dividend will be charged a fee of $0.02 per ADS by the Depositary prior to the distribution of the cash dividend.

Chequeless dividends: Since August 2022, all National Grid dividends will be paid directly into bank or building society accounts for ordinary shareholders. Please make sure you have completed and returned a bank mandate form. Benefits include the following:

- Your dividend reaches your account on the payment day.
- It is a more efficient and secure way of receiving your payment
- It helps reduce the volume of paper in dividend mailing

Scrip dividends: Elect to receive your dividends as additional shares: Join our scrip dividend scheme; no stamp duty or commission to pay.

Electronic communications

Please register at shareview.co.uk.
It only takes a few minutes to register – just have your 11-digit Shareholder Reference Number to hand. You will be sent an Activation Code to complete registration.

Once you have registered, you can elect to receive your shareholder communications electronically.

Registered office

National Grid plc was incorporated on 11 July 2000. The Company is registered in England and Wales No. 4031152, with its registered office at 1–3 Strand, London WC2N 5EH.

Share dealing

Postal share dealing: Equiniti offers our European Economic Area resident shareholders a share dealing service by post. This service is available to private shareholders resident within the European Economic Area, the Channel Islands or the Isle of Man. If you hold your shares in CREST, you are not eligible to use this service. For more information and to obtain a form, please visit shareview.co.uk or call Equiniti on 0800 169 7775.

Internet and telephone share dealing: Equiniti also offers telephone and online share dealing at live prices. For full details, together with terms and conditions, please visit shareview.co.uk. You can call Equiniti on 0345 603 7037 for further details, or to arrange a trade. Lines are open Monday to Friday, 8.00am to 4.30pm for dealing, and until 6.00pm for enquiries.

ShareGift: If you only have a small number of shares that would cost more for you to sell than they are worth, you may wish to consider donating them to ShareGift. ShareGift is a registered charity (No. 1052686) which specialises in accepting such shares as donations. For more information, visit sharegift.org or contact Equiniti.

Individual Savings Accounts (ISAs): ISAs for National Grid shares are available from Equiniti. For more information, call Equiniti on 0345 0700 720 or visit eqi.co.uk.

Cautionary statement

This document comprises the Annual Report and Accounts for the year ended 31 March 2023 for National Grid plc and its subsidiaries.

It contains the Directors' Report and Financial Statements, together with the independent auditor's report thereon, as required by the Companies Act 2006. The Directors' Report, comprising pages 1 – 106 and 218 – 260 has been drawn up in accordance with the requirements of English law, and liability in respect thereof is also governed by English law. In particular, the liability of the Directors for these reports is solely to National Grid.

This document contains certain statements that are neither reported financial results nor other historical information. These statements are forward-looking statements within the meaning of section 27A of the Securities Act of 1933, as amended, and section 21E of the Securities Exchange Act of 1934, as amended. These statements include information with respect to our financial condition, our results of operations and businesses, strategy, plans and objectives. Words such as 'aims', 'anticipates', 'expects', 'should', 'intends', 'plans', 'believes', 'outlook', 'seeks', 'estimates', 'targets', 'may', 'will', 'continue', 'project' and similar expressions, as well as statements in the future tense, identify forward-looking statements. This document also references climate-related targets and climate-related risks which differ from conventional financial risks in that they are complex, novel and tend to involve projection over long-term scenarios which are subject to significant uncertainty and change.

These forward-looking statements and targets are not guarantees of our future performance and are subject to assumptions, risks and uncertainties that could cause actual future results to differ materially from those expressed in or implied by such forward-looking statements and targets. Many of these assumptions, risks and uncertainties relate to factors that are beyond our ability to control or estimate precisely, such as changes in laws or regulations, including any arising as a result of the United Kingdom's exit from the European Union; announcements from and decisions by governmental bodies or regulators, including those relating to the RIIO-T2 and RIIO-ED2 price controls and proposals for the future of system operation in the United Kingdom; the timing of construction and delivery by third parties of new generation projects requiring connection; breaches of, or changes in, environmental, climate change, and health and safety laws or regulations, including breaches or other incidents arising from the potentially harmful nature of our activities; network failure or interruption, the inability to carry out critical non-network operations, and damage to infrastructure, due to adverse weather conditions, including the impact of major storms as well as the results of climate change, due to counterparties being unable to deliver physical commodities, or due to the failure of or unauthorised access to or deliberate breaches of our IT systems and supporting technology; failure to adequately forecast and respond to disruptions in energy supply; performance against regulatory targets and standards and against our peers with the aim of delivering stakeholder expectations regarding costs and efficiency savings, as well as against targets and standards designed to deliver net zero; and customers and counterparties (including financial institutions) failing to perform their obligations to the Company. Other factors that could cause actual results to differ materially from those described in this document include fluctuations in exchange rates, interest rates and commodity price indices; restrictions and conditions (including filing requirements) in our borrowing and debt arrangements, funding costs and access to financing; regulatory requirements for us to maintain financial resources in certain parts of our business and restrictions on some subsidiaries' transactions, such as paying dividends, lending or levying charges; the delayed timing of recoveries and payments in our regulated businesses and whether aspects of our activities are contestable; the funding requirements and performance of our pension schemes and other post-retirement benefit schemes; the failure to attract, develop and retain employees with the necessary competencies, including leadership and business capabilities, and any significant disputes arising with our employees or breaches of laws or regulations by our employees; the failure to respond to market developments, including competition for onshore transmission; the threats and opportunities presented by emerging technology; the failure by the Company to respond to, or meet its own commitments as a leader in relation to, climate change development activities relating to energy transition, including the integration of distributed energy resources; and the need to grow our business to deliver our strategy, as well as incorrect or unforeseen assumptions or conclusions (including unanticipated costs and liabilities) relating to business development activity, including the integration of UK ED, the NECO Sale and NGT Sale, and joint ventures.

For further details regarding these and other assumptions, risks and uncertainties that may affect National Grid, please read the Strategic Report and the risk factors on pages 18 – 24 of this document. In addition, new factors emerge from time to time and we cannot assess the potential impact of any such factor on our activities or the extent to which any factor, or combination of factors, may cause actual future results to differ materially from those contained in any forward-looking statement. Except as may be required by law or regulation, the Company undertakes no obligation to update any of its forward-looking statements, which speak only as of the date of this document.

The contents of any website references in this document do not form part of this document.

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