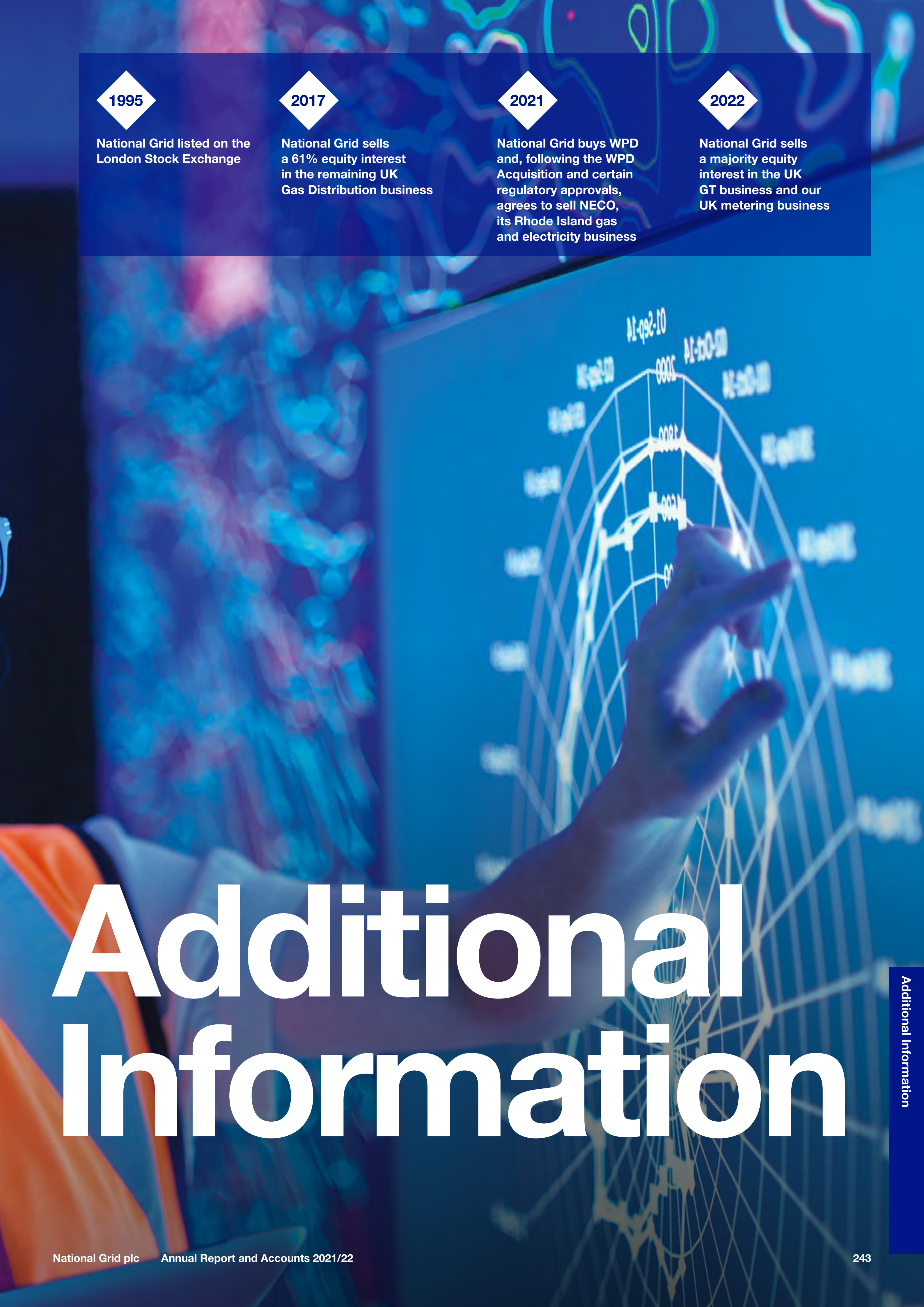
Doing Right Now

Digitalisation

We are transforming how we connect our rapidly changing customer base to connect customers quicker and at a lower cost by digitalising our processes and standardising our designs.



1995

National Grid listed on the London Stock Exchange

2017

National Grid sells a 61% equity interest in the remaining UK Gas Distribution business

2021

National Grid buys WPD and, following the WPD Acquisition and certain regulatory approvals, agrees to sell NECO, its Rhode Island gas and electricity business

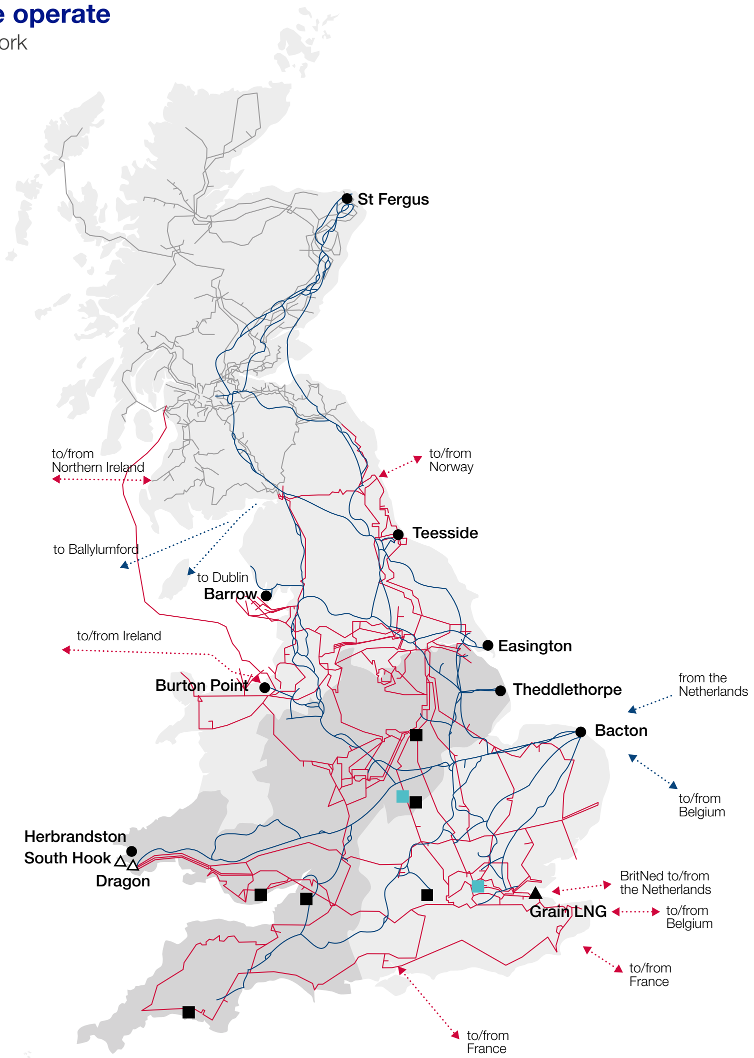
2022

National Grid sells a majority equity interest in the UK GT business and our UK metering business

Additional Information

Where we operate

Our UK network



UK Electricity Distribution (WPD)

Approximately 55,533 miles (89,372 kilometres) of overhead line, 85,728 miles (137,966 kilometres) of underground cable and 189,644 transformers.

UK Transmission[1]

Scottish electricity transmission system

English and Welsh electricity transmission system

Approximately 4,484 miles (7,216 kilometres) of overhead line, 1,585 miles (2,551 kilometres) of the underground cable and 347 substations.

Gas transmission system

Approximately 4,740 miles (7,628 kilometres) of high-pressure pipe and 23 compressor stations connecting to eight distribution networks and third-party independent systems.

Terminal

LNG terminal owned by National Grid

LNG terminal

Electricity interconnector

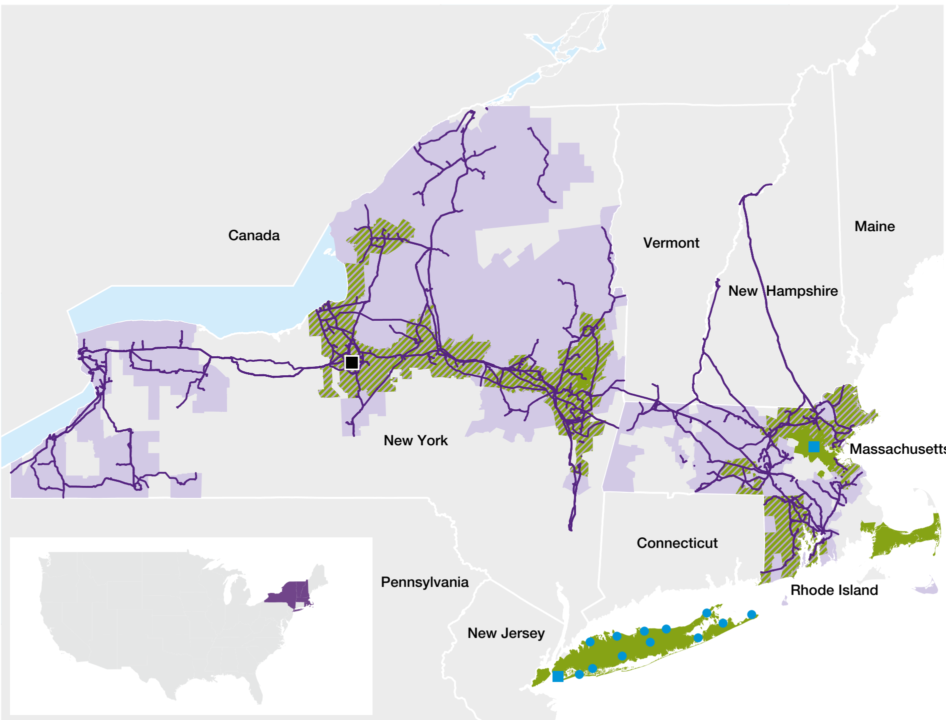
Gas interconnector

Principal offices

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

Leased office space:
Solihull and London

Our US network



US Regulated[1]

Electricity transmission network

Gas distribution operating area

Electricity distribution area

Gas and electricity distribution area overlap

An electricity transmission network of approximately 8,831 miles (14,212 kilometres) of overhead line, 109 miles (175 kilometres) of underground cable and 399 transmission substations. We own and operate approximately 279 miles (449 kilometres) of high-voltage electric interconnectors in New England.

An electricity distribution network of approximately 69,291 circuit miles (111,513 kilometres) and 718 distribution substations in New England and upstate New York.

A network of approximately 36,756 miles (59,153 kilometres) of gas pipeline. Our gas pipeline network includes approximately 953 miles (1,534 kilometres) of gas transmission pipe, as defined by the US Department of Transportation.

Generation

Principal offices

Owned office space:
Syracuse, New York

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

At present, environmental issues are not preventing our UK and US businesses from utilising any material operating assets in the course of their operations.

1. Access to electricity and gas transmission assets on property owned by others is controlled through various agreements.

UK regulation

Our licences to participate in transmission, distribution and interconnection activities are established under the Gas Act 1986 and the Electricity Act 1989, as amended (the 'Acts'). These require us to develop, maintain and operate economic and efficient networks and to facilitate competition in the supply of gas and electricity in Great Britain (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 Acts 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 Acts. 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 (transmission, April 2013 – March 2021);
- RIIO-T2 (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 in November 2022.

Our UK gas and electricity transmission, electricity distribution (WPD) and system operator businesses operate under four separate price controls, which cover our roles as Transmission Owner (TO) and System Operator (SO) in both gas and electricity, and our electricity distribution activities. National Grid Gas Transmission (NGG) fulfils SO and TO functions for gas, National Grid Electricity Transmission fulfils the TO function for electricity, the Electricity System Operator (ESO) fulfils the SO function for electricity, and WPD fulfils electricity distribution activities. In addition to these four regulated network price controls, there is also a tariff cap price control applied to certain elements of domestic-sized metering activities carried out by National Grid Metering and regulation of our electricity interconnector interests.

Since 1 April 2019, the ESO has been a legally separate business within the National Grid Group. This means it operates under its own licence and has a separate set of regulatory arrangements, along with strict ringfences for information.

WPD 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 WPD is regulated by Ofgem. The operations are regulated under the distribution licence which sets the requirements that WPD 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, WPD and interconnectors is given in separate sections below.

RIIO price controls

The building blocks of the RIIO price control 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 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 Regulatory Asset Value (RAV) – effectively the regulatory IOU.

For more details on the sharing factors under RIIO for our transmission businesses, please see the tables overleaf.

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, while Gas Transmission (GT) moves from straight-line to sum-of-digit depreciation (so that depreciation is front loaded but then lower in the later years of the life of the asset). 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 electricity transmission (ET) of up to £15 million and downsides in the region of £47 million, therefore incentivising us to deliver the agreed outputs. For gas transmission (GT) the upside is £15.1 million of allowed revenue with a downside of £14 million. Ofgem will consult on the maximum range of potential upside and downside for RIIO-ED2 as part of its July 2022 publication, and finalise the position in the winter 2022 Final Determination, covering the period from April 2023 to March 2028.

The RIIO-ED1 price control

From 1 April 2015, Ofgem set an eight-year electricity price control (known as RIIO-ED1). WPD 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 WPD licensed areas; the only DNO group to be fast-tracked. WPD'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.

More information on RIIO-T2

In December 2019 we submitted our Business Plans to Ofgem for the RIIO-T2 period, setting out the proposed activities and expenditure to meet the needs of our customers and stakeholders in the period 1 April 2021 – 31 March 2026. These plans were developed through extensive, enhanced stakeholder engagement to improve the quality and ensure they delivered what our stakeholders need.

To support this process, independent user groups were set up in July 2018, one for GT and one for ET (the 'IUGs'). Their responsibility was to ensure that the companies were putting stakeholders at the heart of their decision-making processes so as to produce a Business Plan that was fully reflective of customers', consumers' and other stakeholders' requirements. They summarised their views in an independent report to Ofgem on the companies' RIIO-T2 Business Plans in December 2019.

The IUGs represent a cross-section of the energy industry and represent the interests of consumers, environmental and public interest groups, as well as large-scale and small-scale customers and distribution networks.

The IUGs have now taken on an enduring role through RIIO-T2. There are three key focus areas, which are to:

- 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.

Ofgem published its Final Determinations in December 2020, followed by the RIIO-T2 licences and Regulatory Instructions and Guidance in February 2021. The RIIO-T2 price controls started on 1 April 2021. On 2 March 2021, National Grid announced that it was broadly accepting most of the RIIO-T2 package for its ET and GT businesses, but had decided to submit a technical appeal to the Competition and Markets Authority (CMA) in relation to ET and GT focused on Ofgem's proposed cost of equity and 'outperformance wedge' (a downward adjustment to allowed returns in expectation of future outperformance).

Key parameters from Ofgem's RIIO-T2 Determinations for GT and ET

	Gas Transmission	Electricity Transmission
Allowed Return on Equity[1]	4.55% (real, relative to CPIH)	4.25% (real, relative to CPIH), at 55% gearing (which is broadly equivalent to 4.55% at 60% gearing)
Allowed debt funding	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 25 bps additional borrowing costs.	
Depreciation of RAV	45-year sum-of-digit regulatory depreciation applied to RIIO-T2 additions and retrospectively to 2002 – 2021 additions.	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	60%	55%
Split between fast/slow money	Fast: TO baseline 35%; SO baseline 66%; TO uncertainty mechanisms 25% Slow: TO baseline 65%; SO baseline 34%; TO uncertainty mechanisms 75%	Fast: TO baseline 22%; TO uncertainty mechanisms 15% Slow: TO baseline 78%; TO uncertainty mechanisms 85%
Sharing factor	39%	33%
Core baseline totex in 2018/19 prices (cumulative for the five years of RIIO-T2)	£2.1 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 4.55% and 4.25% figures shown in this row are Ofgem's estimates of the average allowed Return on Equity over the five years of RIIO-T2, as given in the RIIO-T2 Price Control Financial Model published in November 2021.

In October 2021, the CMA found in favour of the technical arguments we put forward in respect of the 'outperformance wedge' but not on the cost of equity.

RIIO-T2 builds on the framework established for RIIO-T1. For example, it introduces a range of new mechanisms to facilitate the transition to net zero, and it increases support for innovation, for example by allowing the regulator to direct additional funding in gas transportation for hydrogen innovation, in recognition of the uncertainty around the extent networks may have a role in transporting hydrogen.

Competition in onshore transmission

Ofgem stated in its final decision on the RIIO-T1 price control that it would consider holding a competition to appoint the constructor and owner of suitably large new electricity transmission projects, rather than including these new outputs and allowances in existing transmission licensee price controls. Ofgem reiterated this view in the RIIO-T2 Determination, extending it now to gas transmission and gas distribution. In the absence, thus far, of the legislation needed to support a competition, Ofgem has developed a number of models which it has indicated it would consider using to deliver benefits of competition, the primary one of these being called the 'Competition Proxy Model', but so far this has not been used for any projects or implemented into licences. The December 2020 BEIS energy white paper reiterated the government's ambition to introduce greater competition to support the delivery of net zero targets but also explained that the introduction of legislation to support full third-party competition would be subject to available parliamentary time.

Regulation of the Electricity System Operator

A primary goal of the ESO legal separation in April 2019 was to increase transparency of our activities and help minimise any perceived conflicts of interest as we take on the challenge of driving forward the energy transformation. There are clear signals from Ofgem and the broader regulatory context that the ESO will play a crucial role in the changing energy environment. As an asset-light and service-based entity, the ESO is also fundamentally different from other regulated network companies. The RIIO-2 price control therefore implemented a bespoke framework for the ESO, recognising that it is different from other regulated businesses.

As part of the RIIO-2 process, the ESO published a five-year Business Plan in December 2019, followed by a detailed two-year delivery schedule in October 2020 (covering the two-year Business Plan 1 (BP1) period). These documents, which were developed following extensive stakeholder engagement, set out the ESO's planned activities and how they fit with its high-level ambitions. However, as the ESO's funding uses a pass-through mechanism (where all efficiently incurred costs can be recovered through regulated revenues), the ESO has the flexibility to deviate from its published plans, delivering additional activities where there is an opportunity to benefit consumers. The ESO's recent work on an Early Competition Plan and supporting the Offshore Transmission Network Review are examples of such activities.

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 in RIIO-2 will continue to be assessed via an evaluative incentive approach, through a two-year incentive scheme with 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 (the 'Panel') of industry stakeholders scores the ESO on its performance, taking into account the delivery of its plans, numerical metrics such as balancing costs, stakeholder interactions, the benefit the ESO has delivered for consumers and the extent to which the ESO's activities have delivered value for money. The Panel scores performance and gives feedback on a six-monthly basis, with the final set of scores in summer 2023 informing the reward or penalty awarded by Ofgem at the end of the two-year BP1 period.

On 29 April 2022 the ESO published its draft plan for the Business Plan 2 (BP2) period, which runs from April 2023 to March 2025. Following engagement with industry the ESO will publish a final BP2 in August 2022. Ofgem is expected to publish its Draft Determinations on ESO's BP2 in November 2022, with Final Determinations in March 2023.

The challenge of net zero, the required speed of decarbonisation and the level of industry and societal change mean that structures and roles across the energy industry will need to evolve. In summer 2021, Ofgem and BEIS jointly consulted on the future of energy system operation. The consultation proposed that the creation of a future system operator, built on the existing capability of the ESO, is a key next step to accelerate the transition to net zero. BEIS and Ofgem have now made their final decision to proceed with the creation of a future system operator that is independent of National Grid. This decision means that, in time, the entirety of the ESO will become part of a new organisation, as well as certain long-term strategic activities for gas. The announcement does not include the operational functions of the Gas System Operator (GSO), which will remain part of NGG. We will continue to collaborate with BEIS, Ofgem and the wider industry following the outcome of this consultation.

Interconnectors regulation

Interconnectors derive their revenues from sales of capacity to users who wish to move power between market areas with different prices. Up until 31 December 2020, this was governed under European legislation and these capacity sales are classified as 'congestion revenues'. This is because the market price differences result from congestion on the established interconnector capacity which limits full price convergence. European legislation governed how congestion revenues may be used and how interconnection capacity is allocated. It requires all interconnection capacity to be allocated to the market through auctions. 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 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.

Regulation of WPD

Looking to the future, RIIO-ED2 covering the period 1 April 2023 – 31 March 2028, is the second electricity distribution price control to be set under the RIIO model. The first draft of our RIIO-ED2 Business Plan was submitted to Ofgem's Challenge Group on 1 July 2021 and the final submission was made on 1 December 2021. Ofgem's Draft Determinations are expected in July 2022 with Final Determinations due by winter 2022.

Following the government's recent legislation for net zero carbon by 2050, DNOs will be at the forefront of its delivery, enabling the transition to a smart, flexible, low-cost and low-carbon energy system for all consumers and network users.

Our RIIO-ED2 Business Plan has been co-created with our stakeholders, following an enhanced and extensive approach to stakeholder engagement with over 25,000 stakeholders being consulted. We provided our stakeholders an opportunity to review our Business Plan three times before the final submission to Ofgem. Our Business Plan has evolved based of the feedback from our stakeholders, the Customer Engagement Groups (CEG) and Ofgem's Challenge Group. Most notable changes have been a reduction of core commitments that demonstrate that they are all well justified, an increase to the ex-ante load-related expenditure to reflect our best view of low-carbon technology (LCT) take-up and additional strategies including the Business Innovation and Efficiency strategy, which clearly demonstrate how WPD will offer best value for our customers.

The core commitments, as included in our Business Plan, fall within three key headings driven by Ofgem. These focus on meeting the needs of consumers and network users, maintaining a safe and resilient network, and delivering an environmentally sustainable service. Every core commitment in our draft Business Plan is in response to an area of focus identified as a priority by stakeholders. Some of the key commitments include:

Sustainability: Leading the drive to net zero as early as possible
- Facilitating regions achieving net zero carbon by as early as 2028 in line with local authority ambitions.
- WPD to be net zero by 2028 for our own business carbon footprint (excluding network losses).

Connectability: Customers can connect their electric vehicles and heat pumps when they want to
- Ready for an additional 1.5 million electric vehicles and 600,000 heat pumps to be connected during RIIO-ED2, providing affordable, LCT connections without delays.
- An online tool for same day self-assessment for the connection of LCTs to our network.

Vulnerability: First class vulnerable customer support programme where everyone benefits in a smart future
- 600,000 smart energy plans offered to customers in vulnerable situations each year.
- £60 million saved by 113,000 fuel poor customers as a result of our ED2 support schemes.

Affordability: Maintain excellent customer service, safety and network performance, and transform the energy grid for future generations, whilst maintaining affordability for our customers
- Targeting 93%+ on customer satisfaction in ED2.
- Lowest ever levels of power cuts.

The business in detail continued

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

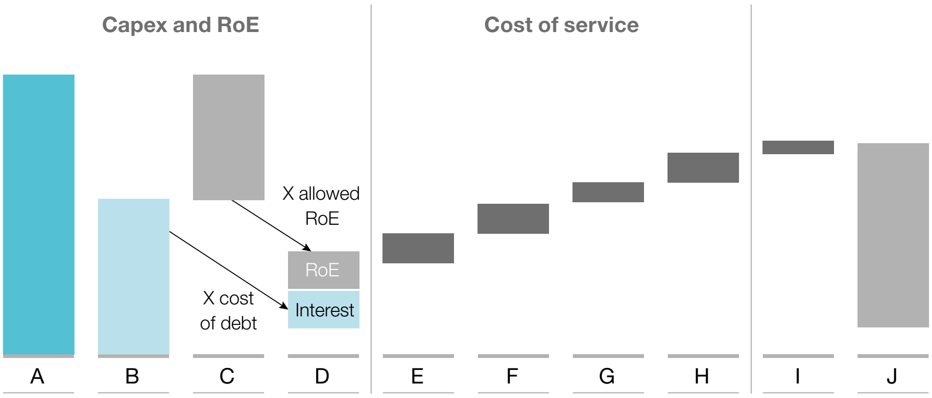
The US regulatory regime is premised on allowing the utility the opportunity to recover its cost of service and earn a reasonable return on its investments as determined by each commission. Utilities submit formal rate filings (rate cases) to the relevant state regulator when additional revenues are 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 service 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.

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

Each operating company has a set of rates for service. We have three electric distribution operations (upstate New York, Massachusetts and Rhode Island) and five gas distribution networks (upstate New York, New York City, Long Island, Massachusetts and Rhode Island).

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. With the exception of residential gas customers in Rhode Island, 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.

Our rate plans are designed to a specific allowed Return on Equity (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 252.

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 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 a 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 Company's proposed five-year performance-based ratemaking plan which adjusts distribution rates annually based on a predetermined formula. Boston Gas 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 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 Company's geothermal district energy demonstration programme for five years with a budget of $15.6 million.

Electric vehicles (EV)

To support Massachusetts' zero emission vehicle targets, in July 2021 the Company filed its Phase III EV charging programme with the MADPU, building on the success of two prior programmes and representing the second-largest such proposal in the US. The proposal requests MADPU approval for $278 million in spending to enable 7,500 public and workplace ports, 24,000 residential ports, and 600 fleet charging ports, as well to support electric school bus conversions in environmental justice communities, and expansion of the Company's off-peak charging rebate programme.

Investigation into role of gas distribution companies in achieving climate change goals

On 29 October 2020, the MADPU issued an order opening an investigation into the role of gas distribution companies in achieving Massachusetts' 2050 climate goals. On or before 18 March 2022, each company was required to submit a proposal to the MADPU that includes its recommendations and plans for helping Massachusetts achieve its 2050 climate goals, supported by an independent consultant's report, that incorporates feedback and advice obtained through a stakeholder process. Supported by the consultant's analysis, National Grid's proposal envisions meeting the state's 2050 climate goals by utilising a decarbonised and integrated gas and electric system that:

- increases investment in and adoption of energy-efficiency measures;
- eliminates fossil fuels from our gas supply by pursuing delivery of fossil-free gas such as renewable natural gas and renewable hydrogen through our network to all our customers;
- enables customer use of hybrid heating by supporting customer adoption of heating technologies best suited to their needs; and
- utilises targeted electrification, including new solutions such as networked geothermal where safe and cost-effective.

Management audit

On 30 September 2019, in its decision regarding Massachusetts Electric Company and Nantucket Electric Company's most recent request for a change in base distribution rates, the MADPU required a comprehensive independent management audit of the Company, including a review of its relationship to the NGSC.

The final audit report was issued on 29 March 2021. On 30 April 2021, the Company filed a proposal for implementation of the audit's recommendations. The DPU issued a final order on 24 November 2021, directing Massachusetts Electric Company and Nantucket Electric Company to implement the recommendations contained in the Final Report and file a comprehensive update regarding implementation of the recommendations at or around the time of its next base rate proceeding.

The MADPU inquiry regarding COVID-19 customer assistance and ratemaking matters

Starting with the First Set of Orders on 24 March 2020, the Chairman of the MADPU issued a series of orders in response to the Governor's declaration of a state of emergency due to the COVID-19 pandemic. In the First Set of Orders, the MADPU prohibited the utilities from terminating service to any customer (including residential, commercial and industrial customers) for non-payment of utility bills until the state of emergency is lifted. The state extended the moratorium for residential customers several times, with the last extension until 1 July 2021, while the moratorium for commercial and industrial (C&I) expired in autumn 2020. Effective 1 July 2021, the Company resumed normal collection activities, which includes issuing notices of amounts in arrears and alerting customers that their service is subject to disconnection for non-payment.

On 31 December 2020, the MADPU approved the consensus implementation issues related to the ratemaking treatment of the COVID-19 customer assistance programmes and determined that the remaining contested issues, including the extent to which the companies will be allowed to recover their COVID-19 costs, should be fully adjudicated in a new proceeding which is currently pending before the MADPU.

Grid Modernisation Plan (GMP)
On 19 August 2015, the Company, together with Nantucket Electric, filed its first proposed GMP with the MADPU. On 10 May 2018, the MADPU issued an order in this proceeding. The order approved $82 million in grid-facing investments over three years in: (1) conservation voltage reduction and volt/volt-amps reactive optimisation; (2) advanced distribution automation; (3) feeder monitors; (4) communications and information/operational technologies; and (5) advanced distribution management/distribution supervisory control and data acquisition. The MADPU allowed recovery of both operation and maintenance expenses and capital costs through a reconciling mechanism. The MADPU did not approve any customer-facing (i.e. advanced metering infrastructure (AMI)) investments; the DPU said it would address these in a further investigation to see if there are ways to achieve cost-effective deployment of these investments. The Company has filed annual reports and cost recovery filings with the MADPU for its GMP in 2019, 2020 and 2021. The Company filed its next proposed four-year GMP (for calendar years 2022 – 2025) on 1 July 2021, which includes proposals to continue the previously-approved investments (designated as 'Track 1' in the proceeding), invest in a distributed energy resource management system (DERMS), conduct two demonstration projects, and deploy AMI (designated as Track 2 in the proceeding). Proceedings on Track 1 have concluded, and on 30 December 2021, the MADPU issued an interim order allowing investments in Track 1 to continue pending the MADPU's final order on Track 1. The MADPU's investigation of Track 2 is ongoing, with orders expected sometime in 2022.

New York

Downstate New York 2019 rate cases
In August 2021, the NYSPSC approved a three-year rate plan for our downstate New York gas businesses, commencing retroactively from 1 April 2020 through to 31 March 2023. The rate plan includes: an 8.8% RoE and 48% equity ratio; gas revenue decreases of $4.7 million for KEDNY and $22.8 million for KEDLI in 2020/21, gas revenue increases of $47 million for KEDNY and $28.9 million for KEDLI in 2021/22, and gas revenue increases of $73.3 million for KEDNY and $26.2 million for KEDLI in 2022/23; funding for a three-year capital plan of approximately $2 billion for KEDNY and $1.3 billion for KEDLI; annual reconciliation mechanisms for certain non-controllable costs (e.g. property taxes, pension/OPEBs, and site investigation remediation costs); a gas safety and reliability surcharge to recover the costs of incremental leak-prone pipe replacement; and a number of incentive mechanisms, including earnings adjustment mechanisms (EAMs), which provide a potential incentive of approximately $3.9 million and $2.5 million annually for KEDNY and KEDLI respectively. There is an option to extend the plan for a fourth rate year with a net plant capital tracker. The rate plan agreement includes a commitment by the Company to evaluate the impact of New York's climate laws on its gas business and infrastructure, including the depreciation of its gas assets.

NMPC rate case
In January 2022, the NYPSC approved a three-year rate settlement for NMPC's electric and gas business commencing retroactively from 1 July 2021 and continuing through 30 June 2024. The rate plan provides for electric revenue increases of $49 million for the rate year ending 30 June 2022, $96 million for the rate year ending 30 June 2023 and $110 million for the rate year ending 30 June 2024, and gas revenue increases of $13 million for the rate year ending 30 June 2022, $29 million for the rate year ending 30 June 2023, and $33 million for the rate year ending 30 June 2024. The rate plan includes: a 9.0% RoE and 48% equity ratio; funding for a three-year capital plan of approximately $2.5 billion for electric and $0.8 billion for gas; annual reconciliation mechanisms for certain non-controllable costs (e.g. property taxes, pension/OPEBs, and site investigation remediation costs); a gas safety and reliability surcharge to recover the costs of incremental leak-prone pipe replacement; and a number of incentive mechanisms, including EAMs, which provide a potential incentive of approximately $106 million and $8 million annually for electric and gas, respectively. The settlement also provides funding for NMPC's advanced metering infrastructure deployment in its upstate New York service territory. There is an option to extend the rate plan to 31 March 2025 and the agreement includes a commitment by the Company to evaluate the impact of New York's climate laws on its gas business and infrastructure, including the depreciation of its gas assets.

Downstate gas supply constraints
In November 2019, the Company entered into a settlement agreement with the state of New York that resolved all claims relating to KEDNY and KEDLI's imposition of restrictions on service connections implemented in 2019. A total of $36 million in customer assistance, gas conservation measures and clean energy investments was committed by the companies, along with the appointment of an external monitor and the requirement to deliver a plan to address service to customers through winter 2020/21. In the interest of promoting transparency and to assure the public of the Company's commitment to identifying long-term solutions for the region's energy challenges, we extended the engagement of the external monitor through September 2021. The settlement agreement also provided a framework for identifying longer-term solutions to address the supply constraints in downstate New York. We developed a range of options to address the natural gas constraints facing the region, which were presented at a series of public meetings in the downstate New York service territory. KEDNY and KEDLI are now working with regulators, stakeholders and customers to implement long-term solutions to the gas supply constraints in the region. In February 2021, the NYPSC approved an amendment to the Settlement Agreement, which repurposed $20 million of shareholder funding to offset the costs of KEDNY and KEDLI's energy efficiency and demand response programmes.

In September 2021, the monitor issued a closing report that summarised our performance under the settlement over the course of the 18-month term of the monitorship, described our efforts to implement the monitor's various recommendations, and offered new recommendations related to the ongoing efforts to meet gas demand in downstate New York.

COVID-19 response New York
The New York State Legislature, in response to the financial impacts of COVID-19 on utility customers, enacted a moratorium on service terminations for non-payment of any overdue charges for the duration of the COVID-19 state of emergency. Further, for customers who attest to a change in financial circumstances due to the COVID-19 pandemic, these protections were extended to 21 December 2021, an additional 180 days following the end of the declared state of emergency.

Fraud investigation
On 17 June 2021, five former National Grid employees in the downstate New York facilities department were arrested on federal charges alleging conspiracy and bribery. National Grid has been identified as a victim of the alleged crimes and will continue to cooperate with the government's investigation. The NYPSC is reviewing the matter and the MADPU and the RIPUC have each issued requests for information related to the alleged criminal conduct. At this time, it is not possible to predict the outcome of the regulatory review or determine the amount, if any, of any potential liabilities that may be incurred by the Company related to this matter. However, we do not expect this matter will have a material adverse effect on the Company's results of operations, financial position or cash flows.

Other important regulatory updates
On 12 February 2021, the Department of Public Service Staff issued white papers on gas system planning that propose:

- a process for modernising the long-term gas planning process in New York; and
- procedures for managing future moratoria on new gas service connections resulting from supply constraints.

'The Gas Planning Paper' proposes significant changes to the reporting and regulatory oversight for gas supply planning, including that the NYPSC direct New York's distribution companies to begin filing long-term supply plans every three years. These supply plans would be similar in many respects to our long-term report for downstate New York, in terms of identifying and analysing various supply options to address different demand scenarios. The NYPSC proposes potential financial incentive mechanisms for developing non-pipeline alternatives, including potential incentives for sourcing renewable natural gas and promoting electrification. 'The Moratorium Paper' proposes a roadmap for managing future moratoria, including requirements for stakeholder notifications, communications plans and applicant management. An NYPSC decision in this proceeding is pending.

In September 2021, the NYPSC approved Niagara Mohawk's petition seeking approval to dispatch and market the output from a Company-owned energy storage facility into the wholesale markets administered by the New York Independent System Operator, Inc. (NYISO). The facility consists of a single 2MW/3MWh energy storage unit that was installed to mitigate a potential thermal overload of a substation transformer but is only needed for local reliability support during the summer months of June to September. The NYPSC authorised the Company to bid the energy, capacity and/or ancillary services available from the facility into the NYISO-administered wholesale markets when not needed for local reliability support with the financial gains from any such market transactions accruing entirely to the benefit of Niagara Mohawk's customers. This authorisation for dual participation will provide financial benefits to the Company's customers that funded the facility and will provide valuable learning opportunities in advance of managing the third-party-owned bulk energy storage projects being procured through competitive requests for proposals pursuant to NYPSC orders.

In addition, in October 2021, KEDNY and KEDLI filed to secure approval for a demand-side management programme that would deploy unprecedented levels of non-infrastructure solutions (e.g. the energy efficiency and demand response programme) to meet customers' energy needs and address a looming gas capacity shortfall on the Company's systems in a manner that supports New York's aggressive climate goals. A NYPSC decision is pending.

Rhode Island

Rhode Island combined gas and electric rate case

On 24 August 2018, the RIPUC approved the terms of an Amended Settlement Agreement (ASA), which took effect on 1 September 2018. We are currently in year four of the Company's multi-year rate plan. On 30 June 2021, the Division consented to an extension of the term of the rate plan such that the Company is not required to file its next rate case so that new rates take effect no later than 1 September 2022. The ASA will remain in effect and the Company will continue to operate under the current rate plan until a new rate plan is approved by the RIPUC. The Company filed a copy of the Division consent letter with the RIPUC on 15 July 2021. Base distribution rates will remain at the Rate Year 3 levels until the next base rate case. The ASA includes an Electric Transportation Initiative (ET Initiative) to facilitate the growth of EV options and scaling of the market for EV charging equipment to advance Rhode Island's zero emission vehicles and greenhouse gas emissions policy goals. The ET Initiative includes the following five components:

- off-Peak Charging Rebate Pilot;
- charging Station Demonstration Programme;
- discount Pilot for Direct Current Fast Charging (DCFC) Station Accounts;
- fleet Advisory Services; and
- electric Transportation Initiative Evaluation.

As of the end of Rate Year 2, the Charging Station Demonstration Programme achieved 72% of ET Initiative targets for Level 2 ports and 7% of the target for DCFC ports. The ASA also includes two energy storage demonstration projects because storage is critical for achieving Rhode Island's clean energy future, as it provides the ability to optimise system performance over time and allows intermittent renewable resources to make a larger contribution to the State's overall energy supply mix.

Rhode Island Aquidneck Island gas service interruption

On 21 January 2019, we suffered a significant loss of gas supply to the distribution system that serves our customers on Aquidneck Island in Rhode Island. As a result, we made the decision to interrupt the gas service to the Aquidneck Island system to protect the safety of our customers and the public. Overall, approximately 7,500 customers lost their gas service. On 23 September 2020, we published a long-term capacity study for energy solutions for Aquidneck Island for stakeholder feedback. The Company has since gathered extensive stakeholder feedback regarding a long-term solution for Aquidneck Island and has identified the solution, which it shared with stakeholders in October 2021.

Power Sector Transformation/Advanced Metering Functionality and Grid Modernisation Plan

On 27 November 2017, we filed a Power Sector Transformation (PST) Vision and Implementation Plan (PST Plan) in conjunction with our combined gas and electric rate case. The PST Plan proposed a suite of investments, including the full deployment of Advanced Metering Functionality (AMF) and grid modernisation investments. On 21 January 2021, following more than two years of extensive collaboration with regulators and key stakeholders, we filed an Updated AMF Business Case and GMP with the RIPUC. The Updated AMF Business Case provides a detailed plan to provide customers with greater control, choice and convenience in their energy consumption through the full-scale deployment of approximately 525,000 electric AMF meters, 277,000 gas modules and the associated communications network. GMP presents a 5-year implementation plan, and a 10-year roadmap of investments necessary to manage the electric distribution grid more granularly considering a range of Distributed Energy Resource (DER) adoption levels through 2030, as well as a comprehensive cost benefit analysis. Cost recovery for the specific projects and programmes in the GMP will be separately requested as part of future Infrastructure, Safety and Reliability (ISR Plans) or rate cases. Pursuant to written order issued on 14 July 2021, the RIPUC stayed the AMF and GMP proceedings pending further consideration following the issuance of a final order by the Division on the PPL Transaction. The RIPUC did not rule on whether or not to consolidate the matters.

Infrastructure, Safety and Reliability Plans

FY 2023 Gas and Electric ISR Plans were filed on 17 and 20 December 2021 respectively for effect 1 April 2022. The Electric ISR Plan proposed capital spending of $104.8 million, plus $13.2 million for total operation and maintenance expenses. The Gas ISR Plan proposed total capital spending of $175.66 million. The RIPUC approved the Gas and Electric ISR Plans on 29 March 2022. There will be a further hearing for the Gas ISR Plan on one issue on 1 June 2022. The RIPUC's ruling on the Electric ISR Plan required the Company to review all distributed generation (DG) projects for which the CIAC did not cover the full cost of the project, reasons why, impact on rate base and associated revenue requirement. The Company is required to file a report on this by 1 August 2022.

COVID-19 response in Rhode Island

In response to the COVID-19 emergency, effective on 16 March 2020, the RIPUC ordered all electric and natural gas utilities to immediately cease certain collection activities, including termination of service for non-payment. On 13 July 2020, the RIPUC, after finding that an emergency still existed for customers eligible for the low-income rate, extended the moratorium on utility shut-offs until 1 November 2020 for customers qualifying for a low-income discount and until 30 September 2020 for remaining residential customers of National Grid. All COVID-19-related moratoria have now expired, and the Company has resumed collection activities.

Federal Energy Regulatory Commission

Complaints on New England transmission allowed RoE

In September 2011, December 2012, July 2014 and April 2016, a series of four complaints were filed with FERC against certain transmission owners, including our New England electricity transmission business. These complaints aimed to lower the base RoE, which FERC had authorised at 11.14% prior to the first complaint. FERC issued orders resolving only the first complaint, with the last order in March 2015, lowering the base RoE to 10.57%. A number of parties, including the Company, appealed FERC's order on the first complaint to the US federal court. On 14 April 2017, the court vacated FERC's order and remanded the first complaint back to FERC. This required FERC to reconsider the methodology it adopted in its order. On 5 June 2017, the New England Transmission Owners (NETOs), including the Company, submitted a filing to FERC to document the reinstatement of their transmission rates that had been in effect on 15 October 2014. FERC denied this filing and stated that, until further notice, the base RoE in New England must remain at the filed rate of 10.57%. On 6 November 2017, the NETOs, including the Company, sought rehearing of the FERC order denying the filing to reinstate their transmission rates that previously had been in effect.

The business in detail continued

On 28 August 2020, after determining that this rehearing request had been deemed denied, the NETOs, including the Company, appealed to a US federal court FERC's order denying the filing to reinstate their transmission rates that previously had been in effect. On 2 October 2020, in response to an unopposed motion by FERC, the US federal court held this appeal in abeyance for four months.

On 16 October 2018, FERC issued a Preliminary Order Directing Brief on our four New England RoE complaints. In this order, FERC proposed a new methodology for determining whether an existing RoE remains just and reasonable and also for determining a new RoE where an existing RoE is found to be unjust and unreasonable. FERC also proposed to set the base RoE in New England at 10.41% with a 13.08% cap on incentives. Briefs were due in January 2019 and responses to the briefs were filed on 8 March 2019. FERC is under no deadline to act on the briefs and it is too early to determine when or how FERC will come to a decision.

On 21 November 2019, FERC issued an order addressing customer complaints involving the transmission RoE for the transmission owners in the Midcontinent Independent System Operator region (MISO TOs). FERC issued an order on rehearing addressing the initial order on 21 May 2020. On 19 November 2020, FERC issued a further order on rehearing reaching the same result as the 21 May 2020 order. In those orders, FERC adopted a revised methodology for determining base RoEs for the MISO TOs. This differed significantly from the methodology and framework set forth in its 16 October 2018 Preliminary Order, which proposed a new RoE methodology in the dockets covering the four RoE complaints against the NETOs. On 23 December 2019, the NETOs filed a Supplemental Paper Hearing Brief and a Motion to Supplement the Record in the NETOs' RoE dockets to respond to the new methodology adopted in the November 2019 MISO TOs' order, as there is uncertainty as to whether the outcome in that proceeding may be applied to the NETOs' cases. Further changes to the FERC RoE methodology applicable to the Company are possible as a result of the orders in the MISO TOs' proceeding and the issues raised in pending pleadings in the NETOs' proceedings. Given the significant uncertainty relating to FERC's methodology, the Company is unable to predict the potential effect of the 21 November 2019, 21 May 2020 and 19 November 2020 MISO TO orders on the NETOs' RoE dockets or the outcome of the four complaints. Further, the Company cannot reasonably estimate a range of gain or loss for any of the four complaint proceedings.

Summary of US price controls and rate plans

		Rate base (31 Mar 2022)	Equity-to-debt ratio	Allowed Return on Equity	Achieved Return on Equity (31 Mar 2022)	Revenue decoupling†	Capital tracker‡	Commodity-related bad debt true-up§	Pension/OPEB true-up◊
New York Public Service Commission	Niagara Mohawk[1] (upstate, electricity)	$6,603m	48:52	9.0%	8.5%	✓	P	P	✓
	Niagara Mohawk (upstate, gas)	$1,584m	48:52	9.0%	8.1%	✓	P	P	✓
	KEDNY (downstate)[2]	$5,429m	48:52	8.8%	8.1%	P	P	P	✓
	KEDLI (downstate)[3]	$3,369m	48:52	8.8%	11.0%	P	P	P	✓
Massachusetts Department of Public Utilities	Massachusetts Electric/Nantucket Electric	$3,049m	53:47	9.6%	7.1%	✓	P	✓	✓
	Massachusetts Gas	$3,820m	53:47	9.7%	6.9%	✓	P	✓	✓
Rhode Island Public Utilities Commission	Narragansett Electric	$983m	51:49	9.3%	8.4%	✓	✓	P	✓
	Narragansett Gas	$1,218m	51:49	9.3%	8.4%	✓	✓	P	✓
Federal Energy Regulatory Commission	Narragansett	$788m	50:50	10.6%	12.5%	n/a	✓	n/a	✓
	Canadian Interconnector/Other[4]	$46m	65:35	11.1%	11.1%	n/a	✓	n/a	✓
	New England Power	$2,260m	63:37	10.6%	10.9%	n/a	✓	n/a	✓
	Long Island Generation	$426m	48:52	9.9%	14.1%	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, property taxes 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 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 2022. 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 Exchange Act 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 sourcebook and Section 404 of the Sarbanes-Oxley Act 2002. 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 Exchange Act).

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 2022.

Deloitte LLP, which has audited our consolidated financial statements for the year ended 31 March 2022, has also audited the effectiveness of our internal control over financial reporting.

During the year, we implemented a new enterprise resource planning (ERP) and general ledger system in the UK for ET and GT, resulting in changes to our reporting system; subject to that, there were no changes in our internal control over financial reporting 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 28 – 32. 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 288. 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 determination and 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 245– 252, which explain our regulatory environment in detail.

Internal control and risk factors continued

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, such as the effects of electric and magnetic fields.

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 ensuring 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

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 such as COVID-19 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 such as COVID-19 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, and 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 WPD Acquisition, the NECO Sale, the NGGT 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 long-term debt capital markets.

Some 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 or the COVID-19 pandemic. 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 National Grid plc 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 exchange rate into the euro and other currencies.

Internal control and risk factors continued

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 and counterparties

Customers 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 with for 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 254.

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 who 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

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.

At the 2021 AGM, the Company's shareholders approved updated Articles which now take account of recent changes to company law and market changes, including in particular the flexibility for the Company to hold general meetings by allowing combined physical and electronic general meetings (also known as 'hybrid' meetings).

Summary

The Articles set out the Company's internal regulations. Copies are available on our website 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 to committees and day-to-day management and decision making to individual Executive Directors. We set out the committee structure on page 91.

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 £2,000,000 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 National Grid, 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 108 – 131.

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, 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

(i) 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, National Grid 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 National Grid'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 National Grid, and the Articles clarify that the Company may use such unclaimed dividends for the Company's benefit as the Directors may think fit.

(ii) 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.

(iii) 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): (a) 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 (b) 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.

(iv) 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.

(v) 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, the place, the date and the time of the meeting. The 2022 AGM will be held as a hybrid 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.

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.

Under the UK Disclosure Guidance and Transparency Rules (DTR) sourcebook, there is also an obligation on a person who acquires or ceases to have a notifiable interest in shares in National Grid to notify the Company of that fact. The disclosure threshold is 3% and disclosure is required each time the person's direct and indirect holdings reach, exceed or fall below each 1% threshold thereafter.

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.

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 19 May 2021 to 18 May 2022, the Company received a total of $1,862,578.41 in reimbursements from the Depositary consisting of $323,055.00, $1,017,402.60 and $522,120.81 received in June 2021, October 2021 and January 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 287.

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 National Grid website as well as 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 260 and 261 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.

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 2021/22 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.

Material interests in shares

As at 31 March 2022, National Grid had been notified of the following holdings in voting rights of 3% or more in the issued share capital of the Company:

	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.	184,152,007	5.05	26 January 2022

1. This number is calculated in relation to the issued share capital at the time the holding was disclosed.

As at 18 May 2022, no further notifications have been received.

The rights attached to ordinary shares are detailed on page 257. 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.

Share capital

As at 18 May 2022, 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.

Authority to purchase shares

Shareholder approval was given at the 2021 AGM to purchase up to 10% of the Company's share capital (being 355,533,053 ordinary shares). The Directors intend to seek shareholder approval to renew this authority at the 2022 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 2021 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]	265,759,757	£33,037,365.14[2]	6.97[1]
Shares purchased and held in Treasury during the year	–	–	–
Shares transferred from Treasury during the year (to employees under employee share plans)	6,628,537	£824,012.63[2]	0.17[3]
Maximum number of shares held in Treasury during the year	265,759,757	£33,037,365.14[2]	6.81[3]

1. Called-up share capital: 3,814,951,606 ordinary shares as at 31 March 2021.
2. Nominal value: $12^{204/473}$ pence per ordinary share.
3. Called-up share capital: 3,904,074,348 ordinary shares as at the date of this report.

As at the date of this report, the Company held 257,369,050 ordinary shares as treasury shares. This represented 6.59% of the Company's called-up share capital.

Authority to allot shares

Shareholder approval was given at the 2021 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 2022:

	Number of shareholders	% of shareholders[1]	Number of shares	% of shares[1]
1 – 50	141,757	19.96	4,410,988	0.11
51 – 100	177,985	25.06	12,528,070	0.32
101 – 500	302,501	42.59	63,621,498	1.63
501 – 1,000	43,615	6.14	30,360,976	0.78
1,001 – 10,000	41,714	5.87	101,954,170	2.61
10,001 – 50,000	1,678	0.24	30,965,205	0.79
50,001 – 100,000	236	0.03	17,223,477	0.44
100,001 – 500,000	424	0.06	101,578,492	2.60
500,001 – 1,000,000	132	0.02	94,228,626	2.41
1,000,001+	294	0.04	3,447,202,846	88.30
Total	710,336	100	3,904,074,348	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 (i) an individual citizen or resident of the US; (ii) a corporation created or organised under the laws of the US, any state thereof or the District of Columbia; (iii) an estate, the income of which is subject to US federal income tax without regard to its source; or (iv) 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 that 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 us 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 (i) 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 (ii) 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 (a PFIC), 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. 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 PFIC for US federal income tax purposes with respect to our taxable year ended 31 March 2022. 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 (IRS). 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 American Depositary Receipts), 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 American Depositary Receipts 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 (i) the ADSs or ordinary shares on the individual's death or (ii) 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.

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 at a 20% discounted option price, which is set at the time of each annual Sharesave launch.

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 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 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 401k 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 2021 were: for pre-tax contributions, a maximum of 50% of salary limited to $19,500 for those under the age of 50 and $26,000 for those aged 50 and above; and for post-tax contributions, up to 15% of salary. The total amount of employee contributions (pre-tax and post-tax) could not exceed 50% of compensation, and was further subject to the combined federal annual contribution limit of $58,000. For the calendar year 2022, participants may invest up to the applicable federal salary limits: for pre-tax contributions, this is 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; for post-tax contributions, this is up to 15% of salary. The total amount of employee contributions (pre-tax and post-tax) may not exceed 50% of compensation, and is further subject to the combined federal annual contribution limit of $61,000.

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.

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 2022, the Company had borrowing facilities of £4.7 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; however, the Company is currently not drawing on any of such borrowing facilities. 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 for senior financial professionals. This Code 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. During the year ended 31 March 2022, no new actual or potential conflicts of interest were identified that required approval by the Board. The Board has considered and noted a number of situations in relation to which no actual conflict of interest was identified.

Corporate governance practices: differences from New York Stock Exchange (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 Corporate Governance Code 2018 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 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

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 pages 65 and 66.

Human rights

We launched our Responsible Business Charter 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 proud to be one of 173 companies and one of 50 FTSE 100 companies who participated in the 2022 Workforce Disclosure Initiative which encourages transparency from companies on how they manage workers with the goal of improving the quality of jobs in company operations and supply chains. This year we improved our Scorecard rating to 86% overall, from 82% last year, and received a special mention in the supply chain data category.

National Grid does not have direct operations in countries of high concern with respect to human rights, therefore we do not have a specific policy relating to human rights. However, respect for human rights is incorporated into our employment practices and our values. 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. In the last Business and Human Rights Resource Centre Report assessing FTSE 100 modern slavery statements, we were recognised as one of a small cluster of leaders standing out. 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 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 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 aimed at working together to eradicate slavery and exploitation in the UK utilities sector and its supply chains. Through this we worked with the Supply Chain Sustainability School to deliver a series of six training session over six months 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 United Nations Global Compact (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 Principles Combatting 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 and equipment

This information can be found in Note 13 Property, plant and equipment on pages 180 – 182, Note 21 Borrowings on pages 192 – 194 and Where we operate on page 244.

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 167
Publication of unaudited financial information	Not applicable
Details of long-term incentive schemes	Pages 114, 128 and 130
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 264
Provision of services by a controlling shareholder	Not applicable
Shareholder waivers of dividends	Page 259
Shareholder waivers of future dividends	Page 259
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 USA's affiliated New York and federal political action committees (PAC) made political donations in the US totalling $79,375 (£58,796) during the year. National Grid USA's affiliated New York PAC (NYPAC) was funded partly by contributions from National Grid USA and certain of its subsidiaries and partly by voluntary employee contributions. National Grid USA'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 17 March 2021, we agreed to buy WPD from PPL, and, conditional upon the completion of the WPD Acquisition and certain regulatory approvals, agreed to sell NECO to PPL. The share purchase agreements for the WPD Acquisition and the NECO sale, together with the sponsor agreement between the Company and Barclays Bank plc (Barclays) dated 31 March 2021 (pursuant to which the Company appointed Barclays as sponsor in connection with the WPD Acquisition and the publication of its shareholder circular for approval of the WPD Acquisition), as well as the acquisition facility dated 17 March 2021 required for the WPD Acquisition, comprising a £8.25 billion term loan facility and a £1.105 billion revolving loan facility term between the Company, Barclays and Goldman Sachs as lenders and lead arrangers, constitute material contracts for the Company.

On 27 March 2022, we also announced the sale of a 60% stake in our UK Gas Transmission (which owns and operates the gas transmission network across Great Britain) and UK metering business. We also entered into an option for the potential sale of the remaining 40% stake with the purchasing consortium. The acquisition agreement and the option agreement in connection with this transaction constitute material contracts for the Company.

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

Investment in research and development during the year for the Group is outlined in Note 4 on page 162. 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 2021/22.

UK Electricity

Electricity Transmission innovation has increased focus on meeting the UK's net zero 2050 targets. As a result, our project portfolio has been developed around the themes of delivering cleaner and cheaper energy. As the pace of climate change and its effects increase, we can expect the technology evolution and delivery of the energy transition to accelerate. Responding to this challenge will mean having to think very broadly about the art of the possible and engaging with other sectors; during 2021/22 we have identified five whole-system approach projects.

Collaboration is a crucial part of the way we innovate in Electricity Transmission. Sharing and being open to new ideas from across industries and academia allows us to develop projects to transform energy systems and bring the greatest possible benefits to our customers, stakeholders and end consumers. For us, that involves finding the right specialist partners to work with us on the right challenges, while giving stakeholders plenty of time and opportunity to contribute and influence our decision making. We have therefore set up a new framework for a wider range of UK universities to work with us on delivering the energy transition and addressing consumer vulnerabilities.

We are partnered with the Energy Innovation Centre (EIC), which provides us with a forum to work together with other networks on common challenges that centre on SF_6, vulnerable customers and net zero substations. Together with EIC, SPEN and SEE, we launched Call for Innovation 2021 for suppliers to showcase their ideas for managing the existing SF_6 inventory. Responses were received from several suppliers addressing improved leak detection, leak sealing and SF_6 capture.

Additionally, we have continued engaging with innovative organisations through our membership of the Infrastructure Industry Innovation Partnership (i3P). Its large network of experts and innovators is helping drive transformation within the infrastructure and construction industry to deliver infrastructure for the future.

We have been granted the Strategic Innovation Funding for a total of £400,000, to deliver the discovery phase of three projects to support network innovation that contributes to the achievement of net zero, while delivering real net benefits to network consumers.

Ofgem approved our business model for our Deeside Centre for Innovation in October 2021 and progress has been made with the construction of the OHL and substation area. Over the past 12 months, our innovation programme at the centre has included trialling three new innovative projects to cut harmful environmental emissions. From reducing SF_6 from its pipework, to trialling a cement-free concrete, to capturing waste heat from electricity transformers to generate hot water and space heating for homes and businesses, these projects are another step forward on the journey to meet net zero targets by 2050. We are aiming to open the facility for wider industry use in October 2022.

We continue to progress innovative ideas into our business as usual practices particularly as the resilience requirements of electricity networks will need to evolve with a changing energy landscape as society adapts how it uses energy to meet the 2050 net zero decarbonisation target and national infrastructure sectors become increasingly interdependent. The outputs of our projects help to plan for future resilience requirements and effectively ensure the UK has a prepared robust transmission network.

WPD

WPD's innovation project portfolio has been expanded to new areas, enabling it to work with industries it has never worked with before. Driven by the Group ambition to meet net zero and recognising that this cannot be delivered if there is no collaboration with other key industries, WPD has focused on increasing collaboration with crucial sectors that need to decarbonise to enable the UK meet its net zero targets. WPD has created and is delivering Network Innovation Allowance (NIA) projects in collaboration with water utilities, environmental management experts and leaders in climate change adaptation. WPD is proud to have started its largest NIA project focusing on consumer vulnerability, called Vulnerability and Energy Networks, Identification and Consumption Evaluation (VENICE). VENICE is developing ways to predict consumer vulnerability, measuring the impact the pandemic had on the networks and using a community energy scheme to find the right approaches needed to engage with the fuel poor in the energy transition.

WPD continued leading our work on EVs and Vehicle to Grid (V2G) by delivering the Electric Nation Powered Up project, which is trialling V2G and strengthening our relationship with the transport industry.

The work on the electrification of heat is now increasing significantly in scale through our Network Innovation Competition (NIC) project, Equinox. Equinox's focus is to make heat flexibility accessible to DNOs and beneficial to customers by running the UK's largest heat flexibility trial.

Values of decarbonisation, excellence and value for money continue to shape WPD's innovation strategy which sets priority areas and commitments. WPD's projects focus on decarbonisation and net zero, heat, transport, data and communities/consumer vulnerability. Stakeholder engagement through webinars, innovation events and innovation themed weeks has enabled us to ensure WPD's innovation strategy reflects stakeholders' needs and priorities. WPD's strategy has also been developed further to include our RIIO-ED2 strategic aims and plans which were created through extensive engagement with customers and stakeholders as part of the RIIO-ED2 Business Plan consultation process.

Electricity System Operator

The ESO has used the first year of RIIO-2 to ramp up its innovation activities. The ESO was awarded an initial £23 million NIA funding from Ofgem, now accessible as a flexible amount across the five-year regulatory period (previously an annual allowance in RIIO-1). This has allowed the ESO to increase the size and number of innovation projects in our pipeline, helping to address priority challenges or opportunities across all the ESO roles. For 2021/22, the ESO has spent £4.43 million on innovation projects; the pipeline of approved projects continues to increase significantly as we continue into 2022/23. The Virtual Energy System (VirtualES) will be a cornerstone of ESO innovation going forward; this programme aims to establish an interconnected network of digital twins for individual components of the energy system, eventually creating a digital replica of the whole energy system. This would unlock greater insights and drive better decisions required for GB to achieve net zero targets, more quickly and efficiently. We have started initial projects to develop a common framework for the VirtualES. In parallel, new innovation projects are currently developing the specific tools and use-cases of the VirtualES to highlight the potential and shared benefits from this future industry-led resource.

UK Gas

In our first year of RIIO-T2, Gas Transmission innovation has developed its portfolio of energy transition projects to meet the UK's net zero 2050 targets. Alongside this energy transitional innovation, asset innovation has developed a focused team to deploy innovations from RIIO-T1 and drive 'business as usual' innovation. The key highlights of 2021/22 include the following:

- The portfolio of NIA projects has sanctioned 25 projects with several further projects under development for 2022/23.
- Development of 11 collaborative SIF Discovery project applications, with 10 being successfully funded for March – April 2022.
- Further development of the Hydrogen in the National Transmission System (HyNTS) programme aligned to future hydrogen investments: HyNTS deblending continued for demonstration later in RIIO-T2 allowing for the separation of hydrogen in a natural gas mix and HyNTS compression exploring the capability of NTS compression systems to both be fuelled and compressed hydrogen methane blends.
- Successful kick-off of the £12.7 million HyNTS FutureGrid NIC project at DNV's Spadeadam Test and Research Centre. Progress includes decommissioned assets delivered to site and remedial works undertaken, groundworks completed ready for construction and standalone hydrogen testing commencing. The project will demonstrate that the National Transmission System (NTS) can transport hydrogen ready for Project Union (the UK hydrogen backbone).
- Reduction of methane emissions through the CH4RGE project that looks at reducing methane emissions from rotating gas equipment and has successfully attained first stage funding for demonstration of the systems and capabilities.
- Deployment of the valve remediation techniques under the Valve Care Toolbox project to provide a suite of solutions that allow for repair rather than replacement of valves.

US research and development

Research and development (R&D) work in the US focused on the advancement of products, processes, systems technologies and work methods that may be new to National Grid. This is accomplished by working with internal departments to identify where strategic R&D investment is needed and is likely to prove beneficial. To achieve these goals, we work in collaboration with technical organisations, academia and vendors in the energy sector that align with our goals and objectives to provide a safe, reliable, efficient and clean service. We continue to focus our R&D on increasing public safety, supporting the integration of renewable resource, protecting our workforce and reducing the cost of the work we perform.

Research efforts are designed with the focus on shared learnings across jurisdictions to help reduce cost and allow for a faster pace of technology adoption.

In 2021/22, we continued to invest and participate in several significant pilot projects with the intention of obtaining operational knowledge and experience of technology-driven system impacts.

US Electricity

New England – Distribution

- In January 2022, we reached a milestone of connecting more than 3 GW of renewable distributed generation across our network – enough to power approximately 600,000 homes. National Grid is ranked as the second utility in the nation for non-residential solar installations and seventh for residential solar installations.
- We are implementing grid modernisation technologies such as Fault Location, Isolation and Service Restoration (FLISR) to improve resilience. FLISR helps optimise system performance by reducing customer outage duration. The programme reduces the minutes of interruption experienced by customers by automatically rerouting power in a way that the electric system previously was not capable of. As an example, in the midst of the 2021 nor'easter, the FLISR scheme was active on feeders from West Salem and Saugus in the North Shore District in New England. A tree limb created a mainline fault condition between the West Salem substation circuit breaker and the first downstream pole-top recloser on the line. FLISR logic was activated and quickly restored service to 1,531 customers in 16 seconds. The remaining 2,356 customers experiencing the outage had their service restored in 141 minutes after the repairs to the feeder were completed. Had this FLISR scheme not been implemented, all 3,887 customers would have experienced the full outage. Another example occurred in February 2021, when a storm in East Boxford, Massachusetts knocked out power to approximately 1,000 customers. FLISR enabled the restoration of power to 400 of the customers almost immediately and minimised restoration time for the remaining 600. These events demonstrated the self-healing capabilities provided by the Advanced Data Analytics/FLISR investments.

New England – Transmission

- National Grid successfully deployed the dynamic line ratings technologies on two transmission lines in New England. This technology allows maximum utilisation of the existing transmission line capacity and supports the Company's net zero emissions goal.
- National Grid successfully deployed the dynamic transformer ratings technologies on two substation transformers. This technology allows maximum utilisation of the existing transformer capacity and supports the Company's net zero emissions goal.

New York – Transmission

- In New York, we have a joint development agreement with the New York Power Authority (NYPA) for co-investment in the Smart Path Connect transmission project to enable the delivery of approximately 1 GW of large-scale renewable generation. Expected to be in service by the end of 2025, this project will deliver 1,000 MWs of renewable energy across New York.

New York – Distribution

- We are working to procure a battery storage non-wire alternative project known as Old Forge, which is a 20 MW and 40 MWh battery designed to operate as a Microgrid, increasing reliability and resiliency of the local grid for 7,565 customers for two hours during peak load periods. In addition, this battery will be providing wholesale market value during Blue-sky days by bidding into the NYISO wholesale electric market, returning any money earned to customers.
- In New York, we are helping grow participation in community distributed generation through a novel customer billing solution we developed and proposed to our regulators. We also recently received approval for Solar for All, a programme to increase solar access for 175,000 of our income-eligible customers. We have proposed a similar programme called MA Community Shared Solar.
- In downstate New York, we launched a portfolio of Weatherisation Programmes aimed to reduce natural gas peak demand, save our customers energy and provide them with a more comfortable and resilient home. Every home weatherised is equivalent to carbon sequestered by an entire acre of US forests a year.

Calibration across multiple jurisdictions

- We are moving from interconnecting to integrating of DERs so we can better utilise them for the system needs. We are implementing Advanced Distribution Management Systems (ADMS) that will support distribution control room operations by providing greater visibility, situation awareness, and optimisation of the distribution system and have created digital products for implementing our DERMS solution so we can streamline DER interconnections and reduce costs for customers.
- One of the big initiatives we're looking to do is implement an AMI installation programme, which is foundational to a lot of other initiatives that rely on that near-real-time customer data.
- AMI will provide more granular energy usage data to enable customers to better understand and choose between DER offerings (i.e. distributed generation, storage, EV, demand response and energy-efficiency solutions) to better manage their energy usage and costs.

Hydrogen pilots

- We are researching how hydrogen will perform in our existing gas infrastructure through our membership with a US Department of Energy funded consortium called Hyblend and through work with the New York State Energy Research Development Authority (NYSERDA) and Stony Brook University.
- We are also partnering with Standard Hydrogen Corporation to develop the nation's first multi-use, renewable hydrogen-based energy storage and delivery system in New York, which is pending regulatory approval. The system will have the ability to power fuel cell vehicles, shift energy peaking, provide backup power and blend hydrogen into the gas network – all from one system and site.
- We have partnered with the town of Hempstead on Long Island, NY to use hydrogen to heat 800 homes and fuel a fleet of municipal vehicles, which will be active by 2024.

Electric vehicles

- National Grid has helped our customers to deploy almost 4,411 EV chargers, with 46% located in environmental or disadvantaged communities.
- We partnered with the city of Beverly on an electric school bus project where the bus delivers stored energy back to the grid to help meet peak energy demand. Not only does this approach reduce local emissions and strengthen the grid, but participants receive a financial incentive. This past summer the Beverly bus discharged nearly 3 MWh of electricity stored in its battery system to the regional electric grid over the course of 30 events.
- Internally, we have light-duty EVs in our fleet. We also are one of the first utilities to introduce an electric backhoe into our fleet and we are testing Ford's first E-Transit vans in downstate New York and Massachusetts.

Digital strategy

We are adopting an agile product methodology and digital approach to implement our business strategy for fast delivery of customer outcomes. We are moving ahead with the following projects:

- Active Resource Integration: An integrated platform that will dynamically manage distributed generation power export for short duration constraints to avoid costly electric system upgrades. It will help optimise DER network utilisation through curtailment management, offering flexible interconnection service at an economic cost and timeframe to developers/customers.
- Vegetation Management Optimisation (VMO): A risk-based vegetation management planning tool using satellite imagery and artificial intelligence to optimise when we prune vegetation and manage hazardous trees on our system. Efficiencies identified are being reinvested to improve reliability and storms costs. We worked with AiDash, a National Grid Partner, and were the first in our industry to implement at a system level.
- Digital product for totex optimisation of Electric workplans. At its core, FutureNow leverages data-driven value models and an optimisation engine to drive equal or better distribution and transmission workplan outcomes at significantly reduced cost. Every project is evaluated along common value drivers (i.e. reliability, capacity, safety and risk) and the overall workplan is resource-balanced in a semi-automated fashion that will save the business hundreds of hours of manual labor annually. FutureNow also drives organisational efficiencies by integrating workplan information from multiple systems into one unified platform, and is envisioned to unlock additional value by applying predictive analytics to improve electric workplan adherence and on-time/on-budget execution.
- On My Way: a digital work dispatch and completion tool. An integrated digital solution focused on better supporting field operations, particularly line crews and trouble workers, by putting in place digital work packages and allowing for more efficient job coordination, assignment and execution. The goal is to move from paper-based work dispatch to digitalised work packages and real-time job dispatch/update/close from any location, thereby generating full time equivalent capacity for reallocation and reductions in fuel and paper costs.

US Gas

New York

- While partnering with a robotics company and another utility, we have been developing and testing new technology to locate inadvertent sewer cross-bores created when using some trenchless technology. This technology is deployed in our gas main immediately after installation, prior to the introduction of natural gas. It differs from the current process, which requires us to gain access to the municipal sewer system. Deployment will reduce the risk and cost associated with sewer cross-bores. We constructed a functional sewer system covering five hectares at one of our facilities to test the accuracy of the technology. We purposefully created cross-bores in the system at several points to determine if the technology could locate them. The technology found all the cross-bores with no false negatives. After achieving positive results deploying this technology in a controlled test bed at one of our NY facilities, the next step was to test this process in the field. This technology was tested after new pipe installation via trenchless methods as well as in validation runs where sewer cross-bores were identified in the field through the existing process. In all cases, the technology was able to verify the locations of the cross-bores accurately. In 2021, we performed 13 inspections with the acoustic cross-bore detector and covered over 18,000 feet of main, 10,000 feet of which was newly installed main, via horizontal directional drilling. We also started knowledge sharing sessions with a California utility which is using the same technology on services to identify any potential cross-bores. The goal is to further validate the technology statistically in 2022.
- National Grid is working on the development of an integrated safety solution, known as 'Grid of Things', comprising various Internet of Things (IoT) connected devices aimed at preventing gas-related incidents at customer locations. The concept of the integrated safety solution comprises a smart metering device, smart methane detector and devices with the ability to cut off gas flow to the customer. The solution will monitor various hazardous

scenarios such as flooding, fire, gas leaks and abnormal pressure conditions (over-pressure/under-pressure), among others, and can communicate alarm conditions to the utility, customers or both over wireless protocols. The primary goal of this safety solution is to mitigate hazards that can lead to gas-related safety incidents within a customer location, as well as notify the customers and respond to such events in a quicker manner if they were to occur. Another key focus of this initiative is to determine a solution that will work in gas only territories where AMI solutions are not currently available. We've worked with various end device manufacturers to develop prototype solutions that communicate on long-range wide area network (LoRaWAN) communications and have performed a successful pilot demonstration in 2021. Through this pilot, we confirmed that these devices can achieve carrier grade communications while achieving greater than 20-year expected battery lifetimes. The next step is to integrate AMI or cellular communications into these devices and test their performance over different communication networks.

- We have partnered with another NY utility and a company in California on the development of an advanced residential methane detector (RMD) which is focused on early detection of gas leaks. This technology is focused on improving the detection of leaks to maximise response time to real hazards. The RMD is in its third prototype phase of development and has shown to be capable of precise and accurate detection of methane at the parts per million level. Several of these prototypes have been deployed at a test facility that is undergoing various methane dispersion tests to mimic typical household leak scenarios. Dispersion testing results showed that the advanced RMD was able to detect gas faster than traditional sensors across a broader range of leak scenarios.
- National Grid is actively supporting research into the ability to provide green hydrogen in its gas distribution systems with the intention of decarbonising gas service in order to provide our customers an effective option to meet the goals of NY's Climate Leadership and Community Protection Act (CLCPA). We are investing in and/or formally collaborating in several targeted R&D projects with various other organisations. The development of hydrogen energy systems is one of the key components of the Low Carbon Resources Initiative (LCRI), which has Technical Support Committees to guide R&D relevant to hydrogen, including renewable fuels, electrolysis and end use. The Company also supports the development of R&D projects in the Operations Technology Development (OTD), Utilization Technology Development and NYSEARCH programmes that primarily support investigations of pipeline integrity with increasing use of hydrogen blending as well as understanding and minimising the impact on end-use equipment. The Company is also a founding member of the Institute for Gas Innovation and Technology (I-GIT) at Stony Brook University that is funded separately and includes R&D into power-to-gas concepts. I-GIT is also leading a two-year NYSERDA project into the impacts of hydrogen blending in NY's gas distribution systems including non-destructive examination of used piping exposed to hydrogen, for which the Company's cost-share was approved in Cases 19-G-0309 and 19-G-0310. I-GIT is also the academic lead for the national $14 million HyBlend Collaborative Research and Development Agreement (CRADA). This HyBlend programme is sponsored by the US Department of Energy's Hydrogen and Fuel Cell Technologies Office in the Office of Energy Efficiency and Renewable Energy and 22 industry and academic participants, which will identify and evaluate the technical and safety requirements for introducing hydrogen blending into US gas distribution systems. The HyBlend CRADA is being led by the National Renewable Energy Laboratory (NREL) and implemented by six other national laboratories. The project kicked off in August 2021 and will take about two years.

The Company is pursuing the above R&D efforts to drive innovations that will improve safety, reliability and operational efficiency of our gas business operations.

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 Long-Term Performance Plan (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, 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.

	2022			2021			2020		
	Gross revenue[1] £m	**Pass-through costs £m**	**Net revenue £m**	Gross revenue £m	Pass-through costs £m	Net revenue £m	Gross revenue £m	Pass-through costs £m	Net revenue £m
UK Electricity Transmission	**2,035**	**(152)**	**1,883**	1,974	(151)	1,823	1,986	(177)	1,809
UK Electricity Distribution	**1,482**	**(125)**	**1,357**	—	—	—	—	—	—
UK Electricity System Operator	**3,455**	**(3,215)**	**240**	2,018	(1,911)	107	1,716	(1,351)	365
New England	**4,550**	**(2,050)**	**2,500**	4,214	(1,784)	2,430	4,235	(1,997)	2,238
New York	**5,561**	**(2,161)**	**3,400**	4,605	(1,469)	3,136	4,601	(1,463)	3,138
NGV and Other	**1,216**	**—**	**1,216**	864	—	864	834	—	834
Sales between segments	**(39)**	**—**	**(39)**	(10)	—	(10)	(12)	—	(12)
Total – continuing operations	**18,260**	**(7,703)**	**10,557**	13,665	(5,315)	8,350	13,360	(4,988)	8,372
Discontinued operations	**1,362**	**(397)**	**965**	1,114	(233)	881	1,180	(242)	938
Total	**19,622**	**(8,100)**	**11,522**	14,779	(5,548)	9,231	14,540	(5,230)	9,310

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 37 – 49 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 2021/22, as highlighted on page 269, our underlying results exclude £16 million (2020/21: £111 million) of timing differences as well as £163 million (2020/21: £150 million) of major storm costs (as costs exceeded our $100 million threshold in both 2021/22 and 2020/21). 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 and earnings – at actual exchange rates – continuing operations

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
NGV and Other	543	(236)	307	—	—	307
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
NGV and Other	65	52	117	—	—	117
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

Year ended 31 March 2020	Statutory £m	Exceptionals and remeasurements £m	Adjusted £m	Timing £m	Major storm costs £m	Underlying £m
UK Electricity Transmission	1,104	5	1,109	(85)	—	1,024
UK Electricity Distribution	—	—	—	—	—	—
UK Electricity System Operator	212	(1)	211	(61)	—	150
New England	470	53	523	157	—	680
New York	370	465	835	82	—	917
NGV and Other	123	3	126	—	—	126
Total operating profit	2,279	525	2,804	93	—	2,897
Net finance costs	(966)	37	(929)	—	—	(929)
Share of post-tax results of joint ventures and associates	87	1	88	—	—	88
Profit before tax	1,400	563	1,963	93	—	2,056
Tax	(370)	8	(362)	(35)	—	(397)
Profit after tax	1,030	571	1,601	58	—	1,659

Reconciliation of adjusted and underlying profits from continuing operations – at constant currency

Year ended 31 March 2021	Adjusted at actual exchange rate £m	At constant currency: 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	(3)	608	11	104	723
New York	665	(4)	661	12	45	718
NGV and Other	117	—	117	—	—	117
Total operating profit	2,427	(7)	2,420	111	149	2,680
Net finance costs	(865)	4	(861)	—	—	(861)
Share of post-tax results of joint ventures and associates	66	—	66	—	—	66
Profit before tax	1,628	(3)	1,625	111	149	1,885

Year ended 31 March 2020	Adjusted at actual exchange rate £m	At constant currency: Constant currency adjustment £m	Adjusted £m	Timing £m	Major storm costs £m	Underlying £m
UK Electricity Transmission	1,109	—	1,109	(85)	—	1,024
UK Electricity Distribution	—	—	—	—	—	—
UK Electricity System Operator	211	—	211	(61)	—	150
New England	523	(24)	499	149	—	648
New York	835	(38)	797	79	—	876
NGV and Other	126	—	126	—	—	126
Total operating profit	2,804	(62)	2,742	82	—	2,824
Net finance costs	(929)	27	(902)	—	—	(902)
Share of post-tax results of joint ventures and associates	88	(1)	87	—	—	87
Profit before tax	1,963	(36)	1,927	82	—	2,009

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 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

Year ended 31 March 2020	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	1,030	(1)	1,029	3,461	29.7
Adjusted	1,601	(1)	1,600	3,461	46.2
Underlying	1,659	(1)	1,658	3,461	47.9

Reconciliation of total Group statutory operating profit to 'adjusted earnings excluding timing and major storm costs'

	Including timing and major storm costs			Excluding timing and major storm costs		
Year ended 31 March	**2022 £m**	2021 £m	2020 £m	**2022 £m**	2021 £m	2020 £m
Continuing operations						
Adjusted operating profit	**3,813**	2,427	2,804	**3,992**	2,688	2,897
Adjusted net finance costs	**(1,081)**	(865)	(929)	**(1,081)**	(865)	(929)
Share of post-tax results of joint ventures and associates	**148**	66	88	**148**	66	88
Adjusted profit before tax	**2,880**	1,628	1,963	**3,059**	1,889	2,056
Adjusted tax	**(669)**	(334)	(362)	**(708)**	(396)	(397)
Adjusted profit after tax	**2,211**	1,294	1,601	**2,351**	1,493	1,659
Attributable to non-controlling interests	**(1)**	(1)	(1)	**(1)**	(1)	(1)
Adjusted earnings from continuing operations	**2,210**	1,293	1,600	**2,350**	1,492	1,658
Exceptional items after tax	**(320)**	(52)	(445)	**(320)**	(52)	(445)
Remeasurements after tax	**292**	62	(126)	**292**	62	(126)
Earnings from continuing operations	**2,182**	1,303	1,029	**2,322**	1,502	1,087
Discontinued operations						
Adjusted operating profit	**654**	499	503	**734**	595	557
Adjusted net finance costs	**(218)**	(77)	(114)	**(218)**	(77)	(114)
Share of post-tax results of joint ventures and associates	**–**	–	–	**–**	–	–
Adjusted profit before tax	**436**	422	389	**516**	518	443
Adjusted tax	**(92)**	(82)	(72)	**(107)**	(100)	(82)
Adjusted profit after tax	**344**	340	317	**409**	418	361
Attributable to non-controlling interests	**–**	–	–	**–**	–	–
Adjusted earnings from discontinued operations	**344**	340	317	**409**	418	361
Exceptional items after tax	**(163)**	(5)	(60)	**(163)**	(5)	(60)
Remeasurements after tax	**(10)**	2	(22)	**(10)**	2	(22)
Earnings from discontinued operations	**171**	337	235	**236**	415	279
Total Group (continuing and discontinued operations)						
Adjusted operating profit	**4,467**	2,926	3,307	**4,726**	3,283	3,454
Adjusted net finance costs	**(1,299)**	(942)	(1,043)	**(1,299)**	(942)	(1,043)
Share of post-tax results of joint ventures and associates	**148**	66	88	**148**	66	88
Adjusted profit before tax	**3,316**	2,050	2,352	**3,575**	2,407	2,499
Adjusted tax	**(761)**	(416)	(434)	**(815)**	(496)	(479)
Adjusted profit after tax	**2,555**	1,634	1,918	**2,760**	1,911	2,020
Attributable to non-controlling interests	**(1)**	(1)	(1)	**(1)**	(1)	(1)
Adjusted earnings from continuing and discontinued operations	**2,554**	1,633	1,917	**2,759**	1,910	2,019
Exceptional items after tax	**(483)**	(57)	(505)	**(483)**	(57)	(505)
Remeasurements after tax	**282**	64	(148)	**282**	64	(148)
Total Group earnings from continuing and discontinued operations	**2,353**	1,640	1,264	**2,558**	1,917	1,366

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	**2022 pence**	2021 pence	2020 pence	**2022 pence**	2021 pence	2020 pence
Adjusted EPS from continuing operations	**61.4**	36.7	46.2	**65.3**	42.4	47.9
Exceptional items and remeasurements after tax from continuing operations	**(0.8)**	0.3	(16.5)	**(0.8)**	0.3	(16.5)
EPS from continuing operations	**60.6**	37.0	29.7	**64.5**	42.7	31.4
Adjusted EPS from discontinued operations	**9.6**	9.7	9.2	**11.4**	11.8	10.4
Exceptional items and remeasurements after tax from discontinued operations	**(4.8)**	(0.1)	(2.4)	**(4.8)**	(0.1)	(2.4)
EPS from discontinued operations	**4.8**	9.6	6.8	**6.6**	11.7	8.0
Total adjusted EPS from continuing and discontinued operations	**71.0**	46.4	55.4	**76.7**	54.2	58.3
Total exceptional items and remeasurements after tax from continuing and discontinued operations	**(5.6)**	0.2	(18.9)	**(5.6)**	0.2	(18.9)
Total Group EPS from continuing and discontinued operations	**65.4**	46.6	36.5	**71.1**	54.4	39.4

Other unaudited financial information continued

Timing and regulated revenue adjustments
As described on pages 245 – 252, 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 £16 million (2020/21: £111 million under-collection). For continuing operations, our closing balance at 31 March 2022 was £53 million over-recovered. Excluding discontinued operations, there was a cumulative under-recovery of £190 million at 31 March 2022 (2021: under-recovery of £70 million) in the UK. In the US, cumulative timing over-recoveries at 31 March 2022 were £293 million (2021: £198 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 £190 million in the year (2020/21: £184 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.

	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)**	**(266)**	**465**	**119**	**(76)**	**43**
Over/(under)-recovery	**(85)**	**22**	**(47)**	**(32)**	**126**	**(16)**	**(80)**	**(96)**
31 March 2022 closing balance to (recover)/return[2]	**(85)**	**22**	**(127)**	**(298)**	**591**	**103**	**(156)**	**(53)**

	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	(254)	479	243	16	259
Over/(under)-recovery	42	–	(130)	(11)	(12)	(111)	(96)	(207)
31 March 2021 closing balance to (recover)/return[2,3]	(10)	–	(60)	(265)	467	132	(80)	52

	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 2019 opening balance[1]	(141)	–	14	(108)	558	323	59	382
Over/(under)-recovery	85	–	61	(149)	(79)	(82)	(54)	(136)
31 March 2020 closing balance to (recover)/return[2,3]	(56)	–	75	(257)	479	241	5	246

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 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). 31 March 2020 was £264 million over-recovered (translated at the closing rate of $1.24:£1).
3. 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 $1.35 for the year ended 31 March 2022.

Capital investment

'Capital investment' or 'investment' refer to additions to property, plant and equipment and intangible assets, and contributions to joint ventures and associates, other than the St William Homes LLP joint venture 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 to our St William Homes LLP arrangement are excluded based on the nature of this 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.

Year ended 31 March	At actual exchange rates			At constant currency		
	2022 £m	2021 £m	% change	**2022 £m**	2021 £m	% change
UK Electricity Transmission	**1,195**	984	21	**1,195**	984	21
UK Electricity Distribution	**899**	—	n/a	**899**	—	n/a
UK Electricity System Operator	**108**	88	23	**108**	88	23
New England	**1,561**	1,437	9	**1,561**	1,429	9
New York	**1,960**	1,738	13	**1,960**	1,729	13
NGV and Other	**462**	480	(4)	**462**	480	(4)
Group capital expenditure – continuing	**6,185**	4,727	31	**6,185**	4,710	31
Equity investment, funding contributions and loans to joint ventures and associates[1]	**461**	81	469	**461**	81	469
Investments in financial assets (National Grid Partners)	**93**	35	166	**93**	35	166
Group capital investment – continuing	**6,739**	4,843	39	**6,739**	4,826	40
Discontinued operations	**261**	204	28	**261**	204	28
Group capital expenditure – total	**7,000**	5,047	39	**7,000**	5,030	39

1. Excludes £25 million (2021: £nil) equity contribution to the St William Homes LLP joint venture.

Net debt

See note 29 on page 208 for the definition and reconciliation of net debt.

Funds from operations and interest cover

FFO is 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	**2022 £m**	2021[1] £m	2020[1] £m
Interest expense (income statement)	**1,146**	977	1,119
Hybrid interest reclassified as dividend	**(38)**	(38)	(39)
Capitalised interest	**152**	131	122
Pensions interest adjustment	**11**	(16)	16
Unwinding of discount on provisions	**(73)**	(78)	(77)
Interest charge (discontinued operations)	**218**	—	—
Adjusted interest expense	**1,416**	976	1,141
Net cash inflow from operating activities	**5,490**	4,461	4,715
Interest received on financial instruments	**40**	16	73
Interest paid on financial instruments	**(1,053)**	(835)	(957)
Dividends received	**166**	80	75
Working capital adjustment	**(361)**	(312)	(269)
Excess employer pension contributions	**99**	116	176
Hybrid interest reclassified as dividend	**38**	38	39
Add back accretions	**241**	—	—
Difference in net interest expense in income statement to cash flow	**(177)**	(138)	(187)
Difference in current tax in income statement to cash flow	**72**	(67)	67
Current tax related to prior periods	**(35)**	8	(45)
Cash flow from discontinued operations	**668**	—	(97)
Other fair value adjustments	**—**	22	—
Funds from operations (FFO)	**5,188**	3,389	3,590
FFO interest cover ((FFO + adjusted interest expense)/adjusted interest expense)	**4.7x**	4.5x	4.1x

1. Numbers for 2021 and 2020 reflect the calculations for the total Group as based on the published accounts for the respective years.

Other unaudited financial information continued

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 calculated 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	2022 £m	2021[1] £m	2020 £m
Funds from operations (FFO)	**5,188**	3,389	3,590
Hybrid interest reclassified as dividend	**(38)**	(38)	(39)
Ordinary dividends paid to shareholders	**(922)**	(1,413)	(892)
RCF	**4,228**	1,938	2,659
Borrowings[2]	**45,465**	32,339	30,794
Less:			
50% hybrid debt	**(1,027)**	(1,032)	(1,054)
Cash and cash equivalents	**(190)**	(157)	(73)
Financial and other investments	**(2,292)**	(1,768)	(1,278)
Underfunded pension obligations	**326**	467	1,442
Borrowings in held for sale	**5,234**	–	–
Derivative balances removed from debt[3]	**–**	–	(116)
Currency swaps[3]	**–**	–	203
Nuclear decommissioning liabilities reclassified as debt[3]	**–**	–	6
Collateral – cash received under collateral agreements	**–**	(582)	(785)
Accrued interest removed from short-term debt[3]	**–**	–	(246)
Adjusted net debt (includes pension deficit)	**47,516**	29,267	28,893
RCF/adjusted net debt	**8.9%**	6.6%	9.2%

1. Numbers for 2021 reflect the calculations for the total Group as based on the published accounts for that year.
2. Including borrowings in NECO and UK Gas Transmission classified as held for sale.
3. Below agency threshold, prior year 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.

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	2022 £m	2021 £m	2020 £m
Adjusted operating profit	**1,067**	1,094	1,109
Movement in regulatory 'IOUs'	**82**	59	21
Deferred taxation adjustment	**26**	53	60
RAV indexation – 2% CPIH (2020 & 2021: 3% RPI) long-run inflation	**287**	418	401
Regulatory vs IFRS depreciation difference	**(433)**	(434)	(448)
Fast money/other	**(44)**	57	70
Pensions	**(42)**	(41)	(40)
Performance RAV created	**75**	110	122
Regulated financial performance	**1,018**	1,316	1,295

UK Electricity Distribution

9.5 months ended 31 March	2022 £m	2021 £m	2020 £m
Adjusted operating profit	**909**	n/a	n/a
Movement in regulatory 'IOUs'	**(42)**	n/a	n/a
Deferred taxation adjustment	**28**	n/a	n/a
RAV indexation – 3% RPI long-run inflation	**198**	n/a	n/a
Regulatory vs IFRS depreciation difference	**(358)**	n/a	n/a
Fast money/other	**(34)**	n/a	n/a
Pensions	**(111)**	n/a	n/a
Performance RAV created	**9**	n/a	n/a
Regulated financial performance	**599**	n/a	n/a

UK Electricity System Operator

Year ended 31 March	2022 £m	2021 £m	2020 £m
Adjusted operating profit	**7**	(60)	211
Movement in regulatory 'IOUs'	**31**	129	(120)
Deferred taxation adjustment	**(4)**	7	3
RAV indexation – 2% CPIH (2020 & 2021: 3% RPI) long-run inflation	**5**	6	5
Regulatory vs IFRS depreciation difference	**27**	(5)	(11)
Fast money/other	**(24)**	(29)	(44)
Pensions	**(10)**	(13)	(12)
Performance RAV created	**—**	1	(3)
Regulated financial performance	**32**	36	29

UK Gas Transmission

Year ended 31 March	2022 £m	2021 £m	2020 £m
Adjusted operating profit	**654**	499	503
Less non-regulated profits	**(150)**	(157)	(155)
Movement in regulatory 'IOUs'	**72**	34	67
Deferred taxation adjustment	**13**	12	25
RAV indexation – 2% CPIH (2020 & 2021: 3% RPI) long-run inflation	**126**	189	185
Regulatory vs IFRS depreciation difference	**(281)**	(88)	(77)
Fast money/other	**(4)**	25	(17)
Pensions	**—**	(34)	(34)
Performance RAV created	**3**	(23)	(24)
Regulated financial performance	**433**	457	473

Regulated financial performance – US

New England

Year ended 31 March	2022 £m	2021 £m	2020 £m
Adjusted operating profit	**743**	611	523
Provision for bad and doubtful debts (COVID-19), net of recoveries[1]	**—**	(7)	63
Major storm costs	**111**	105	—
Timing	**32**	11	157
Depreciation adjustment[2]	**(67)**	—	—
US GAAP pension adjustment	**11**	2	(2)
Regulated financial performance	**830**	722	741

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	2022 £m	2021 £m	2020 £m
Adjusted operating profit	**780**	665	835
Provision for bad and doubtful debts (COVID-19), net of recoveries[1]	**—**	127	54
Major storm costs	**52**	45	—
Timing	**(126)**	12	82
US GAAP pension adjustment	**66**	1	(2)
Regulated financial performance	**772**	850	969

1. New York financial performance includes an adjustment reflecting our expectation for future recovery of COVID-19-related provision for bad and doubtful debts.

Total regulated financial performance

Year ended 31 March	2022 £m	2021 £m	2020 £m
UK Electricity Transmission	**1,018**	1,316	1,295
UK Electricity Distribution	**599**	n/a	n/a
UK Electricity System Operator	**32**	36	29
UK Gas Transmission	**433**	457	473
New England	**830**	722	741
New York	**772**	850	969
Total regulated financial performance	**3,684**	3,381	3,507

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: (a) IFRS underlying EBITDA less other regulatory adjustments; and (b) 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 of 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 WPD, 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 also includes a £101 million deferred balance for separation and transaction costs already incurred related to the sale of NECO and UK Gas Transmission, which is expected to be 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 2022 £m	2021[1] £m	Total regulated and other balances 2022[2,3] £m	2021[1,2,3] £m
UK Electricity Transmission	**15,486**	14,328	**15,274**	14,050
UK Electricity Distribution	**9,250**	—	**9,307**	—
UK Electricity System Operator	**296**	240	**439**	351
UK Gas Transmission (excluding metering)	**6,561**	6,308	**6,657**	6,335
New England	**9,255**	8,673	**11,052**	10,154
New York	**12,923**	12,014	**13,747**	12,528
Total regulated	**53,771**	41,563	**56,476**	43,418
NGV and Other businesses (including discontinued metering business)	**5,226**	4,920	**4,348**	4,584
Total Group regulated and other balances	**58,997**	46,483	**60,824**	48,002

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 £271 million (2021: £293 million), over-recovered timing balances of £346 million (2021: £153 million under-recovered) and under-recovered legacy balances related to previous price controls of £9 million (2021: £nil).
3. Includes assets for construction work-in-progress of £2,139 million (2021: £1,671 million), other regulatory assets related to timing and other cost deferrals of £759 million (2021: £714 million) and net working capital liabilities of £277 million (2021: £390 million).

New England and New York rate base and other total regulated and other balances for 31 March 2021 have been re-presented in the table above at constant currency. At actual currency the values were £9.7 billion and £11.9 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 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 £/$ exchange rate for the year.

Year ended 31 March	2022 £m	2021 £m	2020 £m
Regulated financial performance	**3,684**	3,381	3,507
Operating profit of other activities – continuing operations	**330**	144	153
Operating profit of other activities – discontinued operations	**150**	157	155
Group financial performance	**4,164**	3,682	3,815
Share of post-tax results of joint ventures and associates	**148**	66	88
Non-controlling interests	**(1)**	(1)	(1)
Adjusted total Group interest charge (including discontinued)	**(1,191)**	(882)	(1,069)
Total Group tax charge (including discontinued)	**(761)**	(416)	(433)
Tax on adjustments	**43**	(175)	(117)
Total Group financial performance after interest and tax	**2,402**	2,274	2,283
Opening rate base/RAV	**41,043**	39,552	37,459
Opening other balances	**4,864**	3,984	3,304
Opening goodwill	**5,266**	5,295	5,435
Opening capital employed	**51,173**	48,831	46,198
Opening net debt	**(30,072)**	(27,398)	(27,194)
Opening equity	**21,101**	21,433	19,004
Return on Equity[1]	**11.4%**	10.6%	12.0%

1. Group RoE methodology amended in 2021/22 to calculate accretion charge on inflation-linked debt at long-run inflation rates. This provides alignment to treatment of RAV indexation in the metric. Prior year comparatives have not been restated.

UK and US regulated RoE

Year ended 31 March	Regulatory Debt: Equity assumption	Achieved Return on Equity 2022 %	2021 %	Base or Allowed Return on Equity 2022 %	2021 %
UK Electricity Transmission	**55/45 (2021: 60/40)**	**7.7**	13.8	**6.3**	10.2
UK Electricity Distribution	**65/35**	**13.6**	—	**9.6**	—
UK Gas Transmission	**60/40 (2021: 62.5/37.5)**	**7.8**	9.6	**6.6**	10.0
New England	**Avg. 46/54**	**8.3**	7.5	**9.8**	9.8
New York	**Avg. 52/48**	**8.8**	6.7	**8.9**	9.0

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 helps 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 2020/21 and 2019/20, 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 2021/22, this measure represents our current estimate, since local financial statements have yet to be prepared.

	2022 £m	2021 £m	2020 £m
Underlying IFRS operating profit for New England segment	**886**	727	680
Underlying IFRS operating profit for New York segment	**706**	722	917
Weighted average £/$ exchange rate	**$1.348**	$1.341	$1.287

	New England			New York		
	2022 $m	2021 $m	2020 $m	**2022 $m**	2021 $m	2020 $m
Underlying IFRS operating profit for US segments	**1,194**	974	874	**951**	969	1,181
Adjustments to convert to US GAAP as applied in our US OpCo entities						
Adjustment in respect of customer contributions	**(35)**	(28)	(24)	**(30)**	(31)	(25)
Pension accounting differences[1]	**14**	8	43	**88**	(2)	(51)
Environmental charges recorded under US GAAP	**3**	(14)	2	**42**	(94)	(95)
Storm costs and recoveries recorded under US GAAP	**(75)**	(86)	(43)	**(8)**	(27)	34
Other regulatory deferrals, amortisation and other items	**(253)**	58	(5)	**46**	43	1
Results for US regulated OpCo entities, aggregated under US GAAP[2]	**848**	912	847	**1,089**	858	1,045
Adjustments to determine regulatory operating profit used in US RoE						
Levelisation revenue adjustment	**–**	–	–	**–**	–	(122)
Adjustment for COVID-19-related provision for bad and doubtful debts[3]	**–**	(44)	84	**–**	171	66
Net other	**71**	(14)	(13)	**85**	(16)	74
Regulatory operating profit	**919**	854	918	**1,174**	1,013	1,063
Pensions[1]	**7**	(31)	(4)	**107**	(13)	21
Regulatory interest charge	**(227)**	(221)	(200)	**(316)**	(314)	(285)
Regulatory tax charge	**(179)**	(155)	(183)	**(263)**	(185)	(216)
Regulatory earnings used to determine US RoE	**520**	447	531	**702**	501	583

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 includes an adjustment reflecting our expectation for future recovery of COVID-19-related bad and doubtful debt costs.

	New England			New York		
	2022 $m	2021 $m	2020 $m	**2022 $m**	2021 $m	2020 $m
US equity base (average for the year)	**6,253**	5,960	5,422	**7,946**	7,452	6,721
US jurisdiction RoE	**8.3%**	7.5%	9.8%	**8.8%**	6.7%	8.7%

Value Added and Value Added per share and Value Growth

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 in the Financial review. Value Added per share is calculated by dividing Value Added by the weighted average number of shares (3,599 million) set out in note 8.

Value Growth of 12.8% (2021: 9.4%) 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 2021, the numerator for Value Growth was £2,730 million (2021: £1,995 million). The denominator is Group equity as used in the Group RoE calculation, adjusted for foreign exchange movements.

Asset growth

Asset growth is the annual percentage increase in our RAV and rate base and other business balances (including the assets of NGV and NGP) calculated at constant currency.

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 2021 are presented at historical exchange rates and have not been restated for opening balance adjustments.

As at 31 March	**2022 £m**	2021 £m	
UK RAV	**31,593**	20,872	
US rate base	**22,178**	20,041	
Other invested capital included in gearing calculation	**5,226**	4,458	
Total assets included in gearing calculation	**58,997**	45,371	
Net debt (including 100% of hybrid debt and held for sale)	**(48,043)**	(29,665)	change
Group gearing (based on 100% of net debt including held for sale)	**81%**	65%	16% pts
Group gearing (excluding 50% of hybrid debt from net debt) including held for sale	**80%**	63%	17% pts

Commentary on consolidated financial statements
for the year ended 31 March 2021

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 2022 Financial review included on pages 36 – 49.

Analysis of the income statement for the year ended 31 March 2021

Revenue
Revenue from continuing operations for the year ended 31 March 2021 increased by £305 million to £13,665 million. Revenues were driven by a £302 million increase in UK Electricity System Operator (mainly as a result of higher balancing service pass-through costs, offset by year-on-year timing under-recoveries). Rate increases in both New England and New York were more than offset by lower revenues for commodity pass-through costs. Revenue from NGV and Other increased by £34 million, related to our US renewables business and Partners gains, partly offset by lower Property sales.

Operating costs
Operating costs from continuing activities for the year ended 31 March 2021 of £10,939 million were £92 million higher than prior year. This increase in costs was offset by a £499 million reduction in exceptional items and remeasurements income compared to 2019/20, principally related to the US environmental provision booked in 2019/20 and year-on-year movements in commodity contract remeasurements. In addition, higher operating costs were driven by higher UK BSIS pass-through costs, higher workforce costs and higher depreciation as a result of continued asset investment. This was partially offset by the impact of lower costs in respect of purchases of gas and electricity and the impact of movement in foreign exchange.

In addition to the operating costs of £10,939 million above, provisions for bad and doubtful debts of £325 million were recorded, £91 million higher than the year ended 31 March 2020, principally as a result of the continued impact of COVID-19 on the Group's operations.

Net finance costs
For the year ended 31 March 2021, net finance costs from continuing operations before exceptional items and remeasurements were £64 million lower than the year ended 31 March 2020 at £865 million driven by the impact of lower inflation on our RPI-linked debt, new debt issued at lower rates, a higher net debt as a result of asset growth, termination fees incurred in the prior year and favourable foreign exchange movements, partly offset by higher interest on pension and OPEB liabilities and a higher benefit from interest on tax settlements in 2019/20.

Tax
The tax charge on profits before exceptional items and remeasurements of £334 million was £28 million lower than the year ended 31 March 2020. This was mainly related to a lower level of profit before tax in the year ended 31 March 2021 compared to the year ended 31 March 2020.

Exceptional items and remeasurements
In the year ended 31 March 2021, exceptional items included a £50 million charge in relation to our new operating model implementation costs alongside a £24 million charge in relation to transaction and separation costs (principally in relation to the acquisition of WPD). A £14 million credit was also recognised relating to the release of environmental provisions for one of our Superfund sites for the which the original provision was treated as an exceptional item.

In the prior year, exceptional items included a £400 million charge associated with changes in our environmental provisions and an additional deferred tax charge of £148 million reflecting the impact of the remeasurement of the Group's deferred tax liabilities as a result of a change in the substantively enacted UK corporation tax rate.

Remeasurement gains of £34 million were recognised on commodity contracts in the year ended 31 March 2021 compared with losses of £125 million in the year ended 31 March 2020.

Finance costs for the year ended 31 March 2021 included a net gain of £70 million on financial remeasurements of derivative financial instruments and financial assets at fair value through profit or loss, compared to a net loss of £37 million on financial remeasurements in the year ended 31 March 2020.

Share of post-tax results of joint ventures and associates before exceptional items for the year ended 31 March 2021 were £66 million compared to £88 million in the year ended 31 March 2020, principally due to reduced profits in St William, our Property joint venture.

Profit after tax from discontinued operations
Profit after tax from discontinued operations increased by £102 million to £337 million. This included exceptional costs and remeasurements of £3 million in 2020/21 compared to £82 million in 2019/20. Excluding exceptional items and remeasurements, adjusted operating profit was broadly flat compared to the year ended 31 March 2020. There was an overall reduction of £37 million in the net financing costs attributable to discontinued operations mostly driven by the impact of RPI on our inflation-linked debt. Tax for discontinued operations was £82 million in the year ended 31 March 2021, a £10 million higher tax charge than the prior year driven by higher levels of profit.

Adjusted earnings and EPS from continuing operations
Adjusted earnings and 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 270 for a reconciliation of adjusted basic EPS to EPS.

The above earnings performance translated into adjusted EPS in the year ended 31 March 2021 of 36.7p, compared to 46.2p in the year ended 31 March 2020. Including discontinued operations, adjusted EPS in the year ended 31 March 2021 of 46.4p, compared to 55.4p in the year ended 31 March 2020.

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.

	2020/21	2019/20	% change
Weighted average (income statement)	**1.34**	1.29	4%
Year end (statement of financial position)	**1.38**	1.24	11%

The movement in foreign exchange during the year ended 31 March 2021 has resulted in a £374 million decrease in revenue, a £55 million decrease in adjusted operating profit and a £65 million decrease in underlying operating profit.

Analysis of the adjusted operating profit by segment for the year ended 31 March 2021

UK Electricity Transmission

For the year ended 31 March 2021, revenue in the UK Electricity Transmission segment decreased by £12 million to £1,974 million, and adjusted operating profit increased by £15 million to £1,094 million. Revenue was lower principally as the result of lower pass-through costs and lower incentives. Excluding pass-through costs, net revenue was £14 million higher, as a result of income from legal settlements, the result of RAV indexation from inflation, offset by adverse MOD adjustments, lower base revenues and lower timing over-recoveries (incentives and lower collection of prior period under-recoveries). Regulated controllable costs were £16 million lower, reflecting inflation and higher IT costs, but these were more than offset by efficiency savings. Depreciation and amortisation was £29 million higher due to prior year impairment, a full year of Western Link and provision releases in the year ended 31 March 2021. Other costs were £21 million higher, principally the result of credits related to diversions arising in the prior year.

Capital expenditure increased by £33 million compared with the year ended 31 March 2020 to £984 million reflecting increased activity on Hinkley Seabank, London Power Tunnels 2 and higher capex on the Dorset Visual Impact Provision project in the year ended 31 March 2021.

UK Electricity System Operator

For the year ended 31 March 2021, revenue in the UK Electricity System Operator segment increased by £302 million to £2,018 million but this was principally as the result of higher pass-through costs, which increased from £1,351 million in 2019/20 to £1,911 million in 2020/21 (principally reflecting higher balancing service costs due to reduced demand as a result of COVID-19 and higher intervention costs required to balance the grid). Excluding pass-through costs, net revenue was £271 million lower, as the result of £130 million timing under-recoveries in 2020/21 compared to £60 million over-recoveries in 2019/20 (mainly lower volumes and the impact of the BSUoS deferral scheme). Regulated controllable costs were broadly flat, with inflation and higher IT costs being offset by efficiency savings. Depreciation and amortisation was £9 million higher due to higher asset commissioning.

Capital expenditure decreased by £4 million compared with the year ended 31 March 2020.

New England

Revenue in the New England segment decreased by £21 million to £4,214 million and adjusted operating profit increased by £88 million to £611 million.

The weaker US dollar decreased revenue and operating profit in the year ended 31 March 2021. Excluding the impact of foreign exchange rate movements, revenue increased by £137 million. Of this increase, £134 million was due to decrease in commodity pass-through costs charged on to customers, and £139 million was due to year-on-year timing movements as a result of under-collection of revenues compared to our regulatory allowances in the year ended 31 March 2020. Excluding pass-through costs and timing swings, net revenue increased by £410 million at constant currency, principally reflecting increased revenue allowances under rate plans. Regulated controllable costs increased by £76 million (excluding the impact of foreign exchange) as a result of increased IT costs and inflation partly offset by efficiency savings.

Capital expenditure increased by £127 million (excluding the impact of foreign exchange movements) to £1,437 million, mainly related to increased investment in wholesale networks (including line and cable relocation in NECO, higher LNG spend and also asset refurbishment in New England Power.

New York

Revenue in our New York segment increased by £4 million to £4,605 million, but adjusted operating profit decreased by £170 million to £665 million.

The weaker US dollar decreased revenue and operating profit in the year ended 31 March 2021. Excluding the impact of foreign exchange rate movements, revenue increased by £176 million. Of this increase, £64 million was due to increases in commodity pass-through costs charged on to customers, and £67 million was due to year-on-year timing movements as a result of under-collection of revenues compared to our regulatory allowances in the year ended 31 March 2020. Excluding pass-through costs and timing swings, net revenue increased by £179 million at constant currency, principally reflecting increased revenue allowances under rate plans.

Excluding the impact of foreign exchange movements, regulated controllable costs increased by £24 million as a result of increased IT costs and inflation offset by cost efficiencies. Bad debt expense increased by £132 million at constant currency, driven by additional provisions for receivables related to the impact of COVID-19.

Depreciation and amortisation increased by £34 million year-on-year (excluding foreign exchange adjustments) to £453 million due to ongoing investment in our networks.

Capital expenditure decreased by £16 million (excluding the impact of foreign exchange) to £1,738 million, mainly the consequence of reduced investment in downstate New York (gas pipeline and mandated gas works) which were impacted by disruptions due to COVID-19, mostly offset by damage repair (driven by storm activity in Niagara Mohawk) and accelerated spend in REV (New York's 'Reforming the Energy Vision' programme) and Grid Modernisation, higher IT spend and lease additions.

NGV and Other

For the year ended 31 March 2021, revenue in the NGV and Other segment increased by £30 million to £864 million and adjusted operating profit decreased by £9 million to £117 million. This reflected higher revenues in our US renewables business, partly offset by lower site sales in our commercial property business and reduced income from support services supplied to Cadent compared to the prior year.

Capital investment was significantly lower at £480 million in 2020/21, representing a decrease of £82 million year-on-year. This was principally due to the £209 million acquisition of Geronimo in 2019/20, lower investment in IFA2 which became operational in 2020/21, reduced cable converter spend on North Sea Link, but increased investment in Viking Link and higher investments in NG Partners.

Discontinued operations – UK Gas Transmission (and metering)

For the year ended 31 March 2021, revenue in the UK Gas Transmission segment decreased by £66 million to £1,114 million and adjusted operating profit decreased by £4 million to £499 million. Revenue was impacted by lower pass-through costs, adverse year-on-year timing under-recoveries. Net revenue (adjusted for timing) was higher, reflecting the impact of prior year return of Fleetwood allowances and the RPI uplift, partly offset by re-opener allowances in 2019/20 for cyber and data centres and reduced meter population (as these are replaced by smart meters). Regulated controllable costs were £5 million lower principally driven by efficiency savings. Depreciation and amortisation was lower mainly due to reduction in meter population.

Capital expenditure reduced by £84 million to £204 million, mainly related to the completion of the Feeder 9 gas pipeline replacement project and Peterborough and Huntingdon compressor stations.

Five-year summary financial information

Financial summary (unaudited)

The financial summary set out below has been derived from the audited consolidated financial statements of National Grid for the five financial years ended 31 March 2022. It should be read in conjunction with the consolidated financial statements and related notes, together with the Strategic Report. The information presented below is adjusted for the matters described in the footnotes below for the years ended 31 March 2022, 2021, 2020, 2019 and 2018 where relevant and has been prepared under IFRS as issued by the IASB and as adopted by the UK.

Summary income statement (£m)	2022	2021[1]	2020[1]	2019[1]	2018[1]
Continuing operations					
Revenue	**18,449**	13,665	13,360	13,730	13,836
Operating profit					
Before exceptional items, remeasurements	**3,813**	2,427	2,804	2,963	2,809
Exceptional items, remeasurements	**558**	(26)	(525)	(536)	19
Profit before tax					
Before exceptional items, remeasurements	**2,880**	1,628	1,963	2,156	2,058
Exceptional items, remeasurements	**561**	36	(563)	(595)	119
Profit after tax from continuing operations					
Before exceptional items, remeasurements	**2,211**	1,294	1,601	1,736	1,562
Exceptional items, remeasurements	**(28)**	10	(571)	(456)	1,600
Profit/(loss) after tax from discontinued operations					
Before exceptional items, remeasurements	**344**	340	317	322	499
Exceptional items, remeasurements	**(173)**	(3)	(82)	(88)	(110)
Gain on disposal of UK Gas Distribution after tax	**–**	–	–	–	–
Total profit for the year	**2,354**	1,641	1,265	1,514	3,551
Profit for the year attributable to equity shareholders					
Before exceptional items, remeasurements	**2,554**	1,633	1,917	2,055	2,060
Exceptional items, remeasurements	**(201)**	7	(653)	(544)	1,490
Gain on disposal of UK Gas Distribution after tax	**–**	–	–	–	–
Total	**2,353**	1,640	1,264	1,511	3,550
Earnings per share					
Basic – continuing operations (pence)	**60.6**	37.0	29.7	44.3	102.5
Diluted – continuing operations (pence)	**60.3**	36.8	29.6	44.1	102.1
Basic – total (pence)	**65.4**	46.6	36.5	44.6	102.6
Diluted – total (pence)	**65.0**	46.3	36.3	44.4	102.1
Weighted average number of shares – basic (millions)	**3,599**	3,523	3,461	3,386	3,461
Weighted average number of shares – diluted (millions)	**3,616**	3,540	3,478	3,401	3,476
Dividends per ordinary share					
Paid during the year (pence)	**49.37**	49.00	47.83	46.52	128.97
Approved or proposed during the year (pence)	**50.97**	49.16	48.57	47.34	45.93
Paid during the year ($)	**0.628**	0.628	0.615	0.607	1.751
Approved or proposed during the year ($)	**0.682**	0.682	0.625	0.618	0.624

1. Items previously reported have been re-presented to reflect the classification of the UK Gas Transmission business as a discontinued operation in 2022. Items previously reported for 2018 have been re-presented to reflect our investment in Quadgas HoldCo Limited being presented as a discontinued operation in 2019.

Summary statement of net assets (£m)	2022	2021	2020	2019	2018
Non-current assets	**76,897**	57,278	61,759	55,466	52,106
Current assets	**17,963**	9,938	5,801	7,946	6,681
Total assets	**94,860**	67,216	67,560	63,412	58,787
Current liabilities	**(24,770)**	(9,368)	(8,564)	(9,129)	(8,697)
Non-current liabilities	**(46,234)**	(37,988)	(39,203)	(34,715)	(31,242)
Total liabilities	**(71,004)**	(47,356)	(47,767)	(43,844)	(39,939)
Net assets	**23,856**	19,860	19,793	19,568	18,848
Total shareholders' equity	**23,833**	19,839	19,771	19,548	18,832

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 268 – 279.

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 New York Stock Exchange, 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.

B

BEIS
The Department for Business, Energy and Industrial Strategy, the UK government department responsible for business, industrial strategy, and science and innovation with energy and climate change policy.

bps
Basis point (bp, bps) 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.

Board
The Board of Directors of the Company (for more information, see pages 88 and 89).

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 2022, which was $1.3483 to £1. The average rate for the year ended 31 March 2021 was $1.34 to £1, and for the year ended 31 March 2020 was $1.29 to £1. Assets and liabilities as at 31 March 2021 have been retranslated at the closing rate at 31 March 2022 of $1.3144 to £1. The closing rate for the balance sheet date 31 March 2021 was $1.38 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 to 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.

COVID-19
COVID-19 or coronavirus disease 2019 is an infectious disease caused by severe acute respiratory syndrome.

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.

DC
Defined contribution, relating to our UK or US (as the context requires) pension schemes to which National Grid, as an employer, pays contributions based on a percentage of employees' salaries.

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.

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 88 and 89 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.

Definitions and glossary of terms continued

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.

Electricity Transmission (ET)
National Grid's UK electricity transmission business.

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 group of employees who join together in their workplace based on shared characteristics or life experiences.

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 European Union (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 235 – 241, 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

Gas Transmission (GT)
National Grid's UK gas transmission business.

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 28 – 32.

Group Value Growth
Group Value Growth is Group-wide Value Added expressed as a proportion of Group equity. See page 43 for an explanation of Value Added.

Groupwide 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.

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 Metering Limited (NGM)
The Company's UK regulated metering business.

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.

National Transmission System (NTS)
The gas National Transmission System in Great Britain.

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 agreed sale by National Grid to PPL of NECO, conditional upon completion of the WPD Acquisition and receipt of certain regulatory approvals, which is expected to complete by the end of Q1 2022/23.

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 Promoter Score (NPS)
A commonly used tool to measure customer experience to gauge the loyalty of a company's customer relationships. It is an index ranging from -100 to +100.

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.

NGGT 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 Asset Management and British Columbia Investment Management Corporation. The sale is subject to certain antitrust and regulatory conditions and is expected to close in the second half of 2022. The consortium also has an option on the remaining 40%, on broadly similar terms which can be exercised through the first half of 2023.

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 $12^{204/473}$ 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 the year 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
Revenue decoupling is 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 regulatory framework for transmission networks that was implemented in the eight-year price controls started on 1 April 2013.

RIIO-T2
The regulatory framework for transmission networks issued by Ofgem which started on 1 April 2021.

RIIO-ED1
The regulatory framework for electricity distribution networks issued by Ofgem which started on 1 April 2014.

RIIO-ED2
The regulatory framework for electricity distribution networks expected to be issued by Ofgem to start on 1 April 2023.

Definitions and glossary of terms continued

RIPUC
The Rhode Island Public Utilities Commission.

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.

Subsidiary
A company or other entity that is controlled by National Grid.

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.

Total Societal Impact (TSI)
TSI is a methodology that attempts to calculate the total benefit to society from a company's products, services, operations, core capabilities and activities.

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 GAAP
Generally accepted accounting practices in the UK. These differ from IFRS and from US GAAP.

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), the Massachusetts Department of Public Utilities (MADPU) and the Rhode Island Public Utilities Commission (RIPUC).

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 279.

W

WPD
National Grid's UK electricity distribution business, 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.

WPD Acquisition
The acquisition by National Grid of WPD, which completed on 14 June 2021.

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 American Depositary Shares:

1-800-466-7215
If calling from outside the US:
+1-201-680-6825

adrbnymellon.com
Email:
shrrelations@cpushareownerservices.com

BNY Mellon – ADR
PO Box 505000
Louisville, KY 40233-5000

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:

19 May 2022	2021/22 full-year results
1 June 2022	Ordinary shares go ex-dividend for 2021/22 final dividend
3 June 2022	ADRs go ex-dividend for 2021/22 final dividend
6 June 2022	Record date for 2021/22 final dividend
10 June 2022	Scrip reference price announced
11 July 2022	2022 AGM
20 July 2022 (5.00pm London time)	Scrip election date
17 August 2022	2021/22 final dividend paid to qualifying shareholders
10 November 2022	2022/23 half-year results
23 November 2022	ADRs go ex-dividend for 2022/23 interim dividend
24 November 2022	Ordinary shares go ex-dividend for 2022/23 interim dividend
25 November 2022	Record date for 2022/23 interim dividend
1 December 2022	Scrip reference price announced
12 December 2022 (5.00pm London time)	Scrip election date for 2022/23 interim dividend
11 January 2023	2022/23 interim dividend paid to qualifying shareholders

Dividends

The Directors are recommending a final dividend of 33.76 pence per ordinary share ($2.0929 per ADS) to be paid on 17 August 2022 to shareholders on the register as at 6 June 2022. Further details on dividend payments can be found on page 49. 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 2021/22 final dividend will be charged a fee of $0.02 per ADS by the Depositary prior to the distribution of the cash dividend.

From 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 helps the environment by saving over 500,000 A4 pieces of paper annually.
- It is more secure – cheques sometimes get lost in the post.
- No more trips to the bank.

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 2022 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 – 131 and 242 – 288 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 WPD, the sale of the Company's Rhode Island gas and electricity business and the sale of a 60% stake in the Group's UK Gas Transmission business, 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 253 – 256 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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The paper used in this report has been Carbon Balanced with the World Land Trust, an international conservation charity, which offsets carbon emissions through the purchase and preservation of high conservation value land.

Through protecting standing forests, under threat of clearance, carbon is locked in that would otherwise be released. These protected forests are then able to continue absorbing carbon from the atmosphere, referred to as REDD (Reduced Emissions from Deforestation and forest Degradation). This is now recognised as one of the most cost-effective and swiftest ways to arrest the rise in atmospheric CO_2 and global warming effects. Additional to the carbon benefits is the flora and fauna this land preserves, including a number of species identified as at risk of extinction on the IUCN Red List of Threatened Species.

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