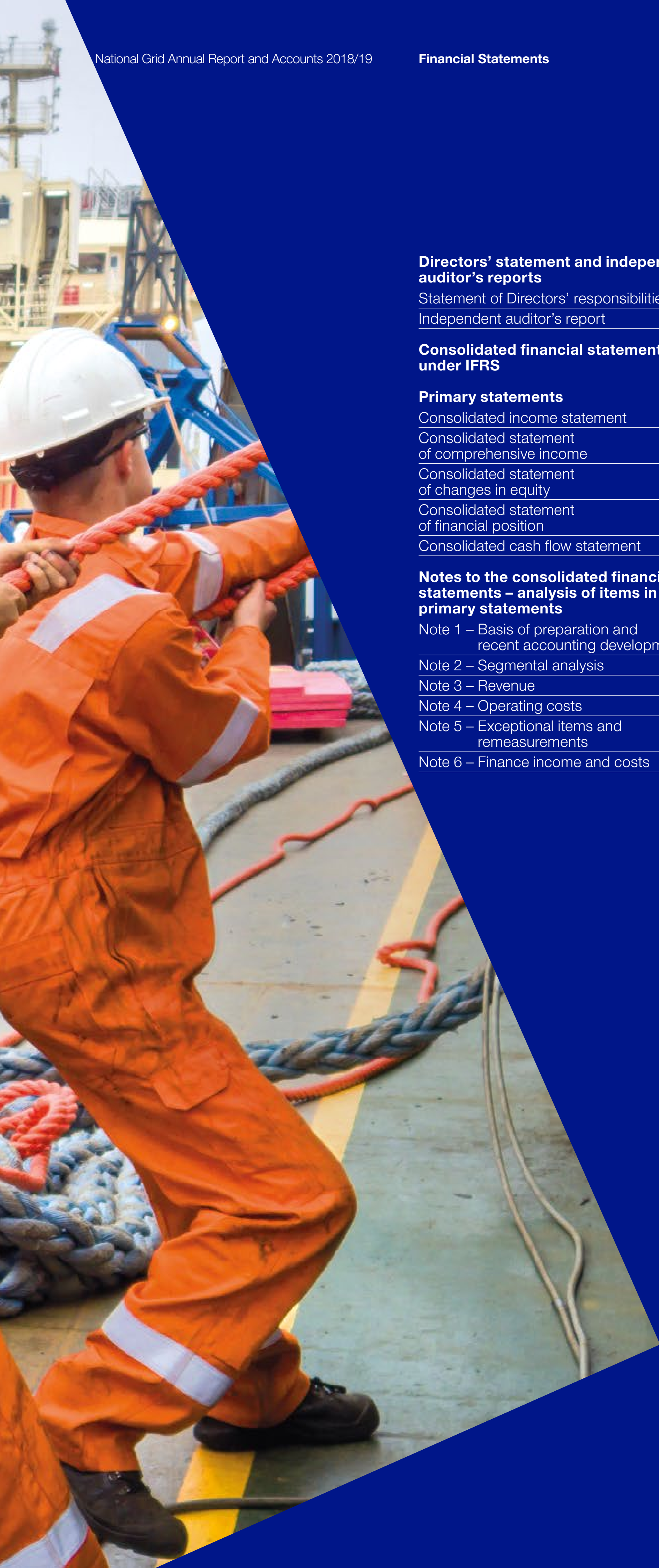


Financial Statements

Statement of Directors' responsibilities

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

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors are required to prepare the Group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and Article 4 of the IAS Regulation and have elected to prepare the Parent Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including FRS 101 'Reduced Disclosure Framework'. Under company law the Directors must not approve the accounts unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Parent Company and of the profit or loss of the Group and Parent Company for that period.

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

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

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

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

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

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

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

Each of the Directors, whose names and functions are listed on pages 48 – 49, confirms that:

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

This responsibilities statement was approved by the Board and signed on its behalf.

Directors' Report

The Directors' Report, prepared in accordance with the requirements of the Companies Act 2006 and the UK Listing Authority's Listing Rules, and Disclosure Rules and Transparency Rules, comprising pages 2 – 90 and 196 – 237, was approved by the Board and signed on its behalf.

Strategic Report

The Strategic Report, comprising pages 2 – 45, was approved by the Board and signed on its behalf.

By order of the Board

Alison Kay
Group General Counsel
& Company Secretary

15 May 2019
Company number: 4031152

Independent auditor's report to the members of National Grid plc

Report on the audit of the financial statements

Opinion

In our opinion:

- the financial statements of National Grid plc (the Parent Company) and its subsidiaries (the Group) give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 March 2019 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and IFRSs as issued by the International Accounting Standards Board (IASB);
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard (FRS) 101 Reduced Disclosure Framework; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements which comprise:

Group:

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

Parent Company:

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

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

Basis for opinion

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

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

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

Summary of our audit approach

Key audit matters	The key audit matters that we identified in the current year were: • classification of exceptional items; • IT user access controls; • environmental provisions; • net pension obligations; and • treasury derivative transactions. Within this report, any new key audit matters are identified with and any key audit matters which are the same as the prior year identified with . Key audit matters with increased or lower levels of risk compared to the prior year are identified with and .
Materiality	The materiality that we used for the Group financial statements was £124 million which was determined based on the adjusted profit before tax metric (profit before tax excluding the impact of reported exceptional items and remeasurements) and considered in the context of statutory profit before tax.
Scoping	Our scope covered seven components of the Group. Of these three were subjected to a full-scope audit whilst the remaining four were subject to specific procedures on certain account balances. Our scoping covered 99% of the Group's revenue and 98% of the Group's net assets.
Significant changes in our approach	Three key audit matters identified in the previous year and described in our report for the year ended 31 March 2018 are not included in our report for the year ended 31 March 2019. These were: • the internal control refresh programme – the refresh programme was completed in the prior year and so has not been identified as a key audit matter in the current year; • revenue recognition – as the prior year was the first year of our audit tenure we invested significant resource in understanding the regulatory environment and methodologies used. Our prior year audit confirmed that there is no significant judgement in revenue recognition and accordingly we have not identified it as a key audit matter in the current year; and • classification of capital costs – our prior year audit procedures identified no issues with the classification of costs between capital and operating and confirmed that there is little judgement required. Accordingly, we have not identified it as a key audit matter in the current year. This year we have identified the classification of exceptional items as a new key audit matter, due to the significant judgement exercised in determining whether an item is exceptional or not.

Independent auditor's report
to the members of National Grid plc continued

Conclusions relating to going concern, principal risks and viability statement

Going concern We have reviewed the Directors' statement in note 1 to the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them and their identification of any material uncertainties to the Group's and Company's ability to continue to do so over a period of at least 12 months from the date of approval of the financial statements. We considered as part of our risk assessment the nature of the Group, its business model and related risks including where relevant the impact of Brexit, the requirements of the applicable financial reporting framework and the system of internal control. We evaluated the Directors' assessment of the Group's ability to continue as a going concern, including challenging the underlying data and key assumptions used to make the assessment, and evaluated the Directors' plans for future actions in relation to their going concern assessment. We are required to state whether we have anything material to add or draw attention to in relation to that statement required by Listing Rule 9.8.6 R(3) and report if the statement is materially inconsistent with our knowledge obtained in the audit.	**We confirm that we have nothing material to report, add or draw attention to in respect of these matters.**
Principal risks and viability statement Based solely on reading the Directors' statements and considering whether they were consistent with the knowledge we obtained in the course of the audit, including the knowledge obtained in the evaluation of the Directors' assessment of the Group's and the Company's ability to continue as a going concern, we are required to state whether we have anything material to add or draw attention to in relation to: • the disclosures on pages 21 – 22 that describe the principal risks and explain how they are being managed or mitigated; • the Directors' confirmation on page 61 that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity; or • the Directors' explanation on pages 23 – 24 as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions. We are also required to report whether the Directors' statement relating to the prospects of the Group required by Listing Rule 9.8.6 R(3) is materially inconsistent with our knowledge obtained in the audit.	**We confirm that we have nothing material to report, add or draw attention to in respect of these matters.**

Key audit matters

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

Throughout the course of our audit we identify risks of material misstatement (risks) and classify those risks according to their severity. In assigning a category we consider both the likelihood of a risk of a material misstatement and the potential magnitude of a misstatement in making the assessment. Certain risks are classified as 'significant' or 'higher' depending on their severity. The category of the risk determines the level of evidence we seek in providing assurance that the associated financial statement item is not materially misstated.

We have described herein the risk categorisation assigned to each of our key audit matters and the reasoning behind that judgement.

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

Classification of exceptional items

Key audit matter description	**Account balance: Operating costs (included in the exceptional items and remeasurements column). Refer to note 5 to the financial statements and the Audit Committee's discussion on page 59.** The Consolidated Income Statement identifies separately exceptional items and certain remeasurements (the 'middle column'). This results in focus being placed on what management refer to as 'Business Performance' or 'Adjusted Profit'. Adjusted profit is a critical measure for stakeholders and underpins the Group's segmental analysis and description of business results and therefore the correct classification of items in the middle column is important for users of the financial statements. We have identified a key audit matter with regards to the classification and accuracy of the amounts referred to as exceptional due to the judgemental nature of the classification and the fact that it affects the adjusted profit of the Group. In the current year management classified the following items as exceptional charges in the middle column: • costs of implementing the UK and US cost efficiency and restructuring programme (£204 million); • net incremental costs in relation to the Massachusetts Gas labour dispute (£283 million); and • impairment of nuclear connections development costs (£137 million). There is judgement applied in determining what is an incremental cost directly attributable to the Massachusetts Gas labour dispute, particularly as the workforce would ordinarily have spent a proportion of their time on capital works. There were other items which were assessed against the exceptional framework but were concluded to not meet the required criteria to be classified as such, including the gains related to: • property sales – in particular the Fulham site (£181 million in total); and • legal settlements (£95 million).
How the scope of our audit responded to the key audit matter	We have tested the controls over the classification and accuracy of amounts presented as exceptional items in the middle column. We have obtained management's exceptional items framework and assessed the reasonableness of the framework for identifying items as being exceptional, and have assessed whether the classification of these items complies with the approved framework. We have also tested the accuracy of the underlying calculations, confirmed that the costs are incremental and directly attributable and assessed whether there are other items which should also have been recorded as exceptional items. We have evaluated the judgements around the Massachusetts Gas labour dispute and considered whether the Columbia Gas incident in a neighbouring utility would have driven higher costs irrespective of the labour dispute.
Key observations	We consider that the nature of items disclosed as exceptional comply with the Audit Committee approved exceptional items framework, and that the amounts identified as being exceptional have been correctly determined. With regards to the judgements surrounding the Massachusetts Gas labour dispute, we have concluded that management's determination of the net incremental costs is materially accurate. We have reviewed other items in line with the framework and concluded that they have been appropriately excluded from classification in the middle column. In particular, we consider that the profit on the sale of the Fulham site is appropriately included within business performance as it is in the ordinary course of business. We are satisfied that the legal settlements are included in business performance because they represent recovery of amounts that were so treated when charged. We confirmed that these items are appropriately disclosed in note 2 to the financial statements.

Independent auditor's report
to the members of National Grid plc continued

IT user access controls

Key audit matter description

IT systems fulfil a critical role in the Group's financial reporting and accordingly IT user access control deficiencies potentially impact all account balances. Refer additionally to the Audit Committee's discussion of significant issues on pages 59 – 60.

In the year to 31 March 2018 ('prior year'), we identified a number of deficiencies relating to segregation of duties, control over privileged access and user access management both within the Group and the Group's IT service organisations (together 'access deficiencies'). The deficiencies identified increased the risk that individuals within the Group and at service organisations had inappropriate access during the period.

Management initiated a programme in the prior year to remediate the identified deficiencies and this continued throughout the year to 31 March 2019 ('current year'). This involved a project to manage the risks where conflicting access rights may not be segregated, the implementation of appropriate privileged access processes and controls across the Group and the Group's IT service providers, and strengthening controls over user access management. Whilst the Group has made significant progress in implementing and improving controls over the access deficiencies, particularly within the IT systems used within the UK operations, the remediation programme is not yet complete, resulting in a number of deficiencies still being present at year end.

The existence of deficiencies during the year and at the year end result in an increased risk that data and reports from the affected systems are not reliable. The issues identified in the prior year impacted all components of the Group but particularly the UK operations. The deficiencies that were not remediated at year end relate primarily to the US operations.

The level of risk ascribed to our work in this area is dependent on the nature and complexity of the controls themselves and the balances within the financial statements the controls address.

How the scope of our audit responded to the key audit matter

In responding to the access deficiencies for in scope IT systems and the associated IT infrastructure, we have:

- determined the impact that inappropriate levels of access could feasibly have had on the affected systems and account balances including assessing the likelihood of inappropriate user access impacting the financial statements, and testing controls implemented by management to identify instances of the use of inappropriate access; and
- identified and tested alternative or compensating controls where such controls existed within the Group's control framework or where no such controls existed extended the scope of our audit such that we have not placed reliance on controls for information produced or held in the impacted systems, including expanding the scope of our substantive testing.

Key observations

The number of access deficiencies identified in the current year has reduced significantly from the prior year.

We are satisfied that the mitigating business controls address the risk of a material misstatement to the financial statements. Due to the fact that the newly remediated controls did not operate for the entire year, we conducted a largely substantive audit in the UK Electricity Transmission ('UKET'), UK Gas Transmission ('UKGT') and US Regulated components and all other areas impacted by the access deficiencies. We have however continued to rely on controls in certain areas where the IT systems were not impacted by the access deficiencies.

Environmental provisions

Key audit matter description

Account balance: Provisions. Refer to notes 26 and 35 to the financial statements.

The Group's environmental provisions relate to a number of sites owned and managed by the Group together with certain US sites that are no longer owned. In the US the most significant provisions relate to former sites that are subject both to state and federal law.

The key audit matter arises from a number of estimation uncertainties that exist in relation to the environmental provisions including the impact of regulation, the form and extent of remediation needed at each site including timing and cost assumptions thereon, methods and technologies used in remediation and the discount rates applied to the forecast cash flows.

In respect of one major site in the US ('US site'), there are multiple parties named in the Environmental Protection Agency order and particular judgement is required to estimate the proportion of the estimated clean-up costs that the Group will be required to contribute.

We have identified the forecast cash flows and discount rate used in calculating the present value of the environmental provisions as 'higher' risks in the current year, whereas in the previous year the discount rate had been determined to be a 'significant' risk. The current year assessment has been informed by the results of our prior year audit procedures.

How the scope of our audit responded to the key audit matter

We have tested the controls over the determination of the discount rate and over the compilation of forecast cash flows.

The expenditure required to remediate the sites is determined by management with the support of their internal and external specialists. We have reviewed the reports provided by those specialists and agreed that the expenditure forecasts prepared by management appropriately reflect their impact. We have utilised our own environmental specialists in the US and sighted legal opinions to review and challenge management's estimates. In respect of the major US site, they reviewed the chemical composition of the identified pollutants and legal opinions received by the Group in order to calculate independently a likely range for the proportion of costs the Group should ultimately bear.

We have challenged the methodology that management has adopted for calculating the discount rate with reference to common practice and publically available papers released by relevant organisations. In addition, we have independently calculated an appropriate discount rate range and used this to benchmark management's rate. We have also tested the mechanical accuracy of the calculations performed including the reversal or utilisation of provisions in the current period.

Key observations

We consider the estimated costs of remediation for identified sites to be reasonable and that the discount rate used by management is at the mid-point of our internally developed 'acceptable range'. In respect of the major US site we concluded that management's estimate of the proportion of costs expected to be borne by the Group was within our independently calculated range.

Net pension obligations

Key audit matter description	**Account balance: Pensions and other post-retirement benefit obligations. Refer to notes 25 and 35 to the financial statements.** Substantially all of the Group's employees are members of one of a number of pension schemes in either the UK or US. These pension schemes include both defined benefit and defined contribution schemes. Healthcare and life insurance benefits are also provided to eligible retired US employees. We have identified a key audit matter specifically in relation to the assumptions used in the valuations of the defined benefit obligations, which as at 31 March 2019 represent an obligation of £24.6 billion, and valuations of level 2 and level 3 pension assets ('unquoted assets'), which as at 31 March 2019 make up £8.4 billion out of scheme assets of £24.8 billion. The key judgements relating to the pension obligations include inflation assumptions, discount rates, mortality assumptions and future salary changes applied to active members. The setting of these assumptions is complex and changes to them can have a material impact on the value of pension liabilities. The pension schemes include a number of unquoted assets, being those assets which do not have market-observable inputs to use in calculating their fair value. As such there is significant judgement in determining the fair value of these assets including the selection of the valuation methodology and other key assumptions. We have assessed the risk associated with the discount rates applied to net pension obligations to be 'higher' in the current year, compared with 'significant' in the prior year. This is informed by the results of our prior year audit which confirmed that although there is a significant level of estimation uncertainty and judgement involved, the assumptions and methodology used by management are based on the advice of qualified actuaries and can be benchmarked to market data and comparable plans. Furthermore there has been no change during the year in actuarial advisor or the methodology used to develop key assumptions.
How the scope of our audit responded to the key audit matter	We have tested the controls over the valuation of pension assets and liabilities. We have engaged our actuarial experts to assist in testing of the discount rate used in calculating the pension liabilities. We have independently calculated an appropriate discount rate and compared this to management's rate. Further, our actuarial experts have assisted us in benchmarking and challenging the other assumptions used by management in determining the value of pension liabilities particularly focusing on inflation, GMP equalisation, salary growth and mortality rates; this has included comparing the inputs and assumptions used in determining the valuation of the Group's schemes to those used in comparable pension plans and/or our internal benchmarks. Additionally, we have considered the independence, objectivity and competence of the independent actuaries engaged to perform valuations of the relevant schemes. We have engaged internal specialists to challenge the valuation of scheme assets, in particular the unquoted assets. Our work has included assessing the reasonableness of the valuation methodologies applied, reviewing publically available information on these assets, comparing to internal benchmarks and confirmation of inputs used by management to determine the asset values.
Key observations	We judge the discount rates and other key pension assumptions used by management to be in the middle of our internally developed reasonable range or consistent with our internally developed assumptions. The results of our procedures performed over the valuation of unquoted assets were satisfactory.

Independent auditor's report
to the members of National Grid plc continued

Treasury derivative transactions

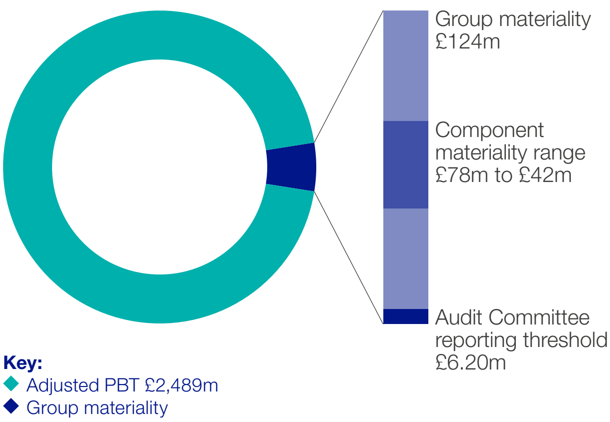
Key audit matter description	**Account balances: Derivative financial assets and derivative financial liabilities. Refer to notes 17 and 32 to the financial statements.** At 31 March 2019 the Group had total borrowings of £28.7 billion (31 March 2018: £26.6 billion) and net total level 3 derivative financial instruments of £61 million (31 March 2018: £26 million). The Group mitigates the exposure to interest rate and foreign exchange rate risks with risk management activities including the use of derivatives such as cross-currency and variable interest rate swaps. The Group designates derivatives in hedge relationships where possible. The valuation of the derivative portfolio requires management to make certain assumptions and judgments in particular around the valuation methodologies adopted and the discount rate to be applied to forecast cash flows. The portfolio also includes 'level 3' derivatives for which no directly observable inputs for their fair value are available (such as a quoted market price). Accordingly, there is judgement involved in determining the methodology used to fair value these derivatives. We have identified the accuracy and valuation of 'level 3' treasury derivatives as a 'higher' risk within our audit plan due to the level of judgement and the technical nature of determining derivative values. We have also identified the net investment hedge accounting requirements as a 'higher' risk. In the current year, IFRS 9 'Financial Instruments' was implemented for the first time. As the Group elected to employ the modified retrospective method of transitioning, this resulted in transition adjustments being recorded to shareholders' equity at the beginning of the current year.
How the scope of our audit responded to the key audit matter	We have tested the controls over the recording and valuation of derivative financial instruments. This has included testing of the review-type controls performed by management over the valuations and challenge of the estimates made. In conjunction with our treasury specialists we have tested a sample of the valuation models used by management, including a challenge of the assumptions therein, to confirm the appropriateness of the valuation methodology adopted and the assumptions applied. Where relevant we have obtained third party confirmations to test the completeness and accuracy of the information held within the Group's treasury management system. We have assessed the appropriateness of the hedge documentation, eligibility of designations and hedge effectiveness testing performed by management and tested the disclosure within the financial statements. We have assessed the accuracy and completeness of the IFRS 9 transition adjustments and the accounting for the classification and measurement of financial assets and liabilities within the scope of the standard in the current year to determine whether the appropriate accounting treatment has been adopted by the Group.
Key observations	We conclude that the valuation of derivatives and the Group's use of hedge accounting, is appropriate.

Our application of materiality

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

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

	Group financial statements	Parent Company financial statements
Materiality	Materiality has been set at £124 million for the current year. In 2018 the materiality was set at £130 million.	Materiality has been set at £100 million for the current year. In 2018 materiality was set at £125 million.
Component materiality	The majority of the audit work is performed at a component level and is audited to a lower materiality. The component materiality for significant components ranged from £42 million to £78 million. In 2018 materiality for significant components ranged from £35 million to £75 million.	Component materiality is not relevant to our audit of the Company financial statements.
Basis for determining materiality	We considered a number of metrics to determine Group materiality, most notably adjusted profit before tax (profit before tax, exceptional items and remeasurements) for the year as disclosed in the consolidated income statement. Our materiality equates to 5% of adjusted profit before tax and 6.7% of statutory profit before tax. In the prior year materiality was also determined based on profit before tax, exceptional items and remeasurements.	We have set materiality based on 2% of the net assets of the Company.
Rationale for the benchmark applied	We consider adjusted profit before tax to be an important benchmark of the performance of the Group. We consider it appropriate to adjust for exceptional items and remeasurements as these items are volatile and not reflective of the underlying performance of the Group. We conducted an assessment of which line items we understand to be the most important to investors and analysts by reviewing analyst reports and National Grid's communications to shareholders and lenders, as well as the communications of peer companies. This assessment resulted in us considering the financial statement line items above. Profit before tax is the benchmark ordinarily considered by us when auditing listed entities. It provides comparability against other companies across all sectors, but has limitations when auditing companies whose earnings are impacted by items which can be volatile from one period to the next, and therefore may not be representative of the volume of transactions and the overall size of the business in a given year. Whilst not an IFRS measure, adjusted profit is one of the key metrics communicated by management in National Grid's results announcements. It excludes some of the volatility arising from changes in fair values of financial assets and liabilities as well as 'exceptional items' and this was also the key measure applied in the prior year.	As the Company is non-trading and operates primarily as a holding company for the Group's trading entities and is not profit orientated, we believe the net asset position is the most appropriate benchmark to use. The strength of the balance sheet is a key measure of the financial health that is important to shareholders since the primary concern is the payment of dividends.



Performance materiality for the current year has been set at £86.8 million (2018: £87.5 million), or 70% of materiality (2018: 67%).

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

- our risk assessment, including our assessment of the Group's overall control environment;
- the high audit coverage obtained from auditing a low number of components; and
- our prior year experience of the audit, which has indicated a low number of corrected and uncorrected misstatements identified.

We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £6.20 million (2018: £6.25 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

Independent auditor's report
to the members of National Grid plc continued

An overview of the scope of our audit

The following significant components of the Group were identified in our audit planning: UKET, UKGT and US Regulated. Each of these components was subjected to a full-scope audit for Group reporting purposes, completed to the individual component materiality level discussed above. In the prior year Quadgas Holdco was also identified as a significant component but following the signing of the RAA, the Group's results are not significantly impacted by the performance of Quadgas and accordingly it has not been identified as a significant component in the current year.

As each of the financially significant components maintains separate financial records we have engaged component auditors, from the Deloitte member firms in the US or the UK, to perform procedures at these components on our behalf. This approach also allows us to engage local auditors who have appropriate knowledge of local regulations to perform this audit work. We issued detailed instructions to the component auditors and directed and supervised their work through a number of visits to the component auditor during the planning and performance stages of our audit alongside frequent remote communication and review of their work.

Our oversight of component auditors focused on the planning of their audit work and key judgements made. In particular our supervision and direction focused on the work performed in relation to key audit matters including internal controls (including general IT controls), environmental provisions, pensions, treasury derivative transactions and the classification of exceptional items. As part of our monitoring of component auditors we have also attended key local audit meetings.

Additionally our audit planning identified the following non-significant components where we consider there to be a reasonable possibility of material misstatement in specific items within the financial statements: UK Property, NG Insurance, the Isle of Grain LNG terminal and the Metering business. Accordingly, we have directed component auditors to perform specific audit procedures in relation to material account balances and analytical procedures on the respective Income Statements and Statements of Financial Position for these components. The work on these components is carried out by the same component audit team as for the UKET and UKGT components.

In addition to the work performed at a component level the group audit team also performs audit procedures on the Parent Company financial statements including but not limited to corporate activities such as treasury and pensions as well as on the consolidated financial statements themselves, including entity level controls, litigation provisions, the consolidation, financial statement disclosures and risk assessment work on components not included elsewhere in the scope of our audit. The group audit team also co-ordinates certain procedures performed on key areas, such as environmental provisions, where audit work is performed by both the group and component audit teams as well as analytical reviews on out of scope components.

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon.

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

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

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

In this context, matters that we are specifically required to report to you as uncorrected material misstatements of the other information include where we conclude that:

- **Fair, balanced and understandable** – the statement given by the Directors that they consider the annual report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or
- **Audit committee reporting** – the section describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee; or
- **Directors' statement of compliance with the UK Corporate Governance Code** – the parts of the Directors' statement required under the Listing Rules relating to the Company's compliance with the UK Corporate Governance Code containing provisions specified for review by the auditor in accordance with Listing Rule 9.8.10 R(2) do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.

We have nothing to report in respect of these matters.

Responsibilities of directors

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

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

Auditor's responsibilities for the audit of the financial statements

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

Details of the extent to which the audit was considered capable of detecting irregularities, including fraud are set out below.

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

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

We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and then design and perform audit procedures responsive to those risks, including obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion.

Identifying and assessing potential risks related to irregularities

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

- enquiring of management, internal audit, and the Audit Committee, including obtaining and reviewing supporting documentation, concerning the Group's policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud; and
  - the internal controls established to mitigate risks related to fraud or non-compliance with laws and regulations.
- discussing among the engagement team including significant component audit teams and involving relevant internal specialists, including tax, valuations, pensions, treasury and IT regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.
- obtaining an understanding of the legal and regulatory frameworks that the Group operates in, focusing on those laws and regulations that had a direct effect on the financial statements or that had a fundamental effect on the operations of the Group. The key laws and regulations we considered in this context included the UK Companies Act 2006, the UK Listing Rules, pensions and tax legislation, US Securities Exchange Act 1934 and relevant SEC regulations, as well as laws and regulations prevailing in each country in which we identified a full scope component. In addition, compliance with terms of the Group's operating licence and environmental regulations were fundamental to the Group's operations.

Audit response to risks identified

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

Our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with relevant laws and regulations discussed above as having a direct effect on the financial statements;
- enquiring of management, the Audit Committee and legal counsel concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with HMRC; and
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

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

Independent auditor's report
to the members of National Grid plc continued

Report on other legal and regulatory requirements

Opinions on other matters prescribed by the Companies Act 2006

In our opinion the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

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

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

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

Matters on which we are required to report by exception

Adequacy of explanations received and accounting records Under the Companies Act 2006 we are required to report to you if, in our opinion: • we have not received all the information and explanations we require for our audit; or • adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or • the Parent Company financial statements are not in agreement with the accounting records and returns.	**We have nothing to report in respect of these matters.**
Directors' remuneration Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of directors' remuneration have not been made or the part of the directors' remuneration report to be audited is not in agreement with the accounting records and returns.	**We have nothing to report in respect of these matters.**

Other matters

Auditor tenure

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

The period of total uninterrupted engagement including previous renewals and reappointments of the firm is two years, covering the years ended 31 March 2018 and 31 March 2019.

Consistency of the audit report with the additional report to the Audit Committee

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

Use of our report

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

Douglas King FCA (Senior statutory auditor)

For and on behalf of Deloitte LLP
Statutory Auditor
London, United Kingdom
15 May 2019

Consolidated income statement
for the years ended 31 March

2019	Notes	Before exceptional items and remeasurements £m	Exceptional items and remeasurements (see note 5) £m	Total £m
Continuing operations				
Revenue	2(a),3	14,933	–	14,933
Operating costs	4,5	(11,491)	(572)	(12,063)
Operating profit	2(b)	3,442	(572)	2,870
Finance income	5,6	73	15	88
Finance costs	5,6	(1,066)	(91)	(1,157)
Share of post-tax results of joint ventures and associates	16,10	40	–	40
Profit before tax	2(b),5	2,489	(648)	1,841
Tax	5,7	(488)	149	(339)
Profit after tax from continuing operations	5	2,001	(499)	1,502
Profit after tax from discontinued operations	10	57	(45)	12
Total profit for the year (continuing and discontinued)		2,058	(544)	1,514
Attributable to:				
Equity shareholders of the parent		2,055	(544)	1,511
Non-controlling interests[1]		3	–	3
Earnings per share (pence)				
Basic earnings per share (continuing)	8			44.3
Diluted earnings per share (continuing)	8			44.1
Basic earnings per share (continuing and discontinued)	8			44.6
Diluted earnings per share (continuing and discontinued)	8			44.4

1. The non-controlling interests for the year ended 31 March 2019 relate to continuing operations.

2018[1]	Notes	Before exceptional items and remeasurements £m	Exceptional items and remeasurements (see note 5) £m	Total £m
Continuing operations				
Revenue	2(a)	15,250	–	15,250
Operating costs	4,5	(11,793)	36	(11,757)
Operating profit	2(b)	3,457	36	3,493
Finance income	6	127	–	127
Finance costs	5,6	(1,128)	119	(1,009)
Share of post-tax results of joint ventures and associates	16,10	44	5	49
Profit before tax	2(b),5	2,500	160	2,660
Tax	5,7	(584)	1,473	889
Profit after tax from continuing operations	5	1,916	1,633	3,549
Profit after tax from discontinued operations	10	145	(143)	2
Total profit for the year (continuing and discontinued)		2,061	1,490	3,551
Attributable to:				
Equity shareholders of the parent		2,060	1,490	3,550
Non-controlling interests[2]		1	–	1
Earnings per share (pence)				
Basic earnings per share (continuing)	8			102.5
Diluted earnings per share (continuing)	8			102.1
Basic earnings per share (continuing and discontinued)	8			102.6
Diluted earnings per share (continuing and discontinued)	8			102.1

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas HoldCo Limited as a discontinued operation in the current period (see note 1C and note 10).
2. The non-controlling interests for the year ended 31 March 2018 relate to continuing operations.

Consolidated income statement
for the years ended 31 March continued

2017	Notes	Before exceptional items and remeasurements £m	Exceptional items and remeasurements (see note 5) £m	Total £m
Continuing operations				
Revenue	2(a)	15,035	–	15,035
Operating costs	4,5	(11,262)	(565)	(11,827)
Operating profit	2(b)	3,773	(565)	3,208
Finance income	6	53	–	53
Finance costs	5,6	(1,082)	(58)	(1,140)
Share of post-tax results of joint ventures and associates		63	–	63
Profit before tax	2(b),5	2,807	(623)	2,184
Tax	5,7	(666)	292	(374)
Profit after tax from continuing operations		2,141	(331)	1,810
Profit after tax from discontinued operations	10	606	5,378	5,984
Total profit for the year (continuing and discontinued)		2,747	5,047	7,794
Attributable to:				
Equity shareholders of the parent		2,747	5,048	7,795
Non-controlling interests[1]		–	(1)	(1)
Earnings per share (pence)				
Basic earnings per share (continuing)	8			48.1
Diluted earnings per share (continuing)	8			47.9
Basic earnings per share (continuing and discontinued)	8			207.1
Diluted earnings per share (continuing and discontinued)	8			206.2

1. The non-controlling interests for the year ended 31 March 2017 relate to discontinued operations.

Consolidated statement of comprehensive income
for the years ended 31 March

	Notes	2019 £m	2018[1] £m	2017 £m
Profit after tax from continuing operations		**1,502**	3,549	1,810
Other comprehensive income from continuing operations				
Items from continuing operations that will never be reclassified to profit or loss:				
Remeasurement gains on pension assets and post-retirement benefit obligations	25	**68**	1,313	423
Net gains on financial liability designated at fair value through profit and loss attributable to changes in own credit risk		**7**	–	–
Net losses in respect of cash flow hedging of capital expenditure		**(13)**	–	–
Tax on items that will never be reclassified to profit or loss	7	**(15)**	(530)	(277)
Total items from continuing operations that will never be reclassified to profit or loss		**47**	783	146
Items from continuing operations that may be reclassified subsequently to profit or loss:				
Exchange adjustments		**347**	(505)	346
Net (losses)/gains in respect of cash flow hedges and cost of hedging		**(147)**	19	70
Transferred from/(to) profit or loss in respect of cash flow hedges and cost of hedging		**41**	(3)	(6)
Net (losses)/gains on available-for-sale investments		**–**	(30)	81
Transferred to profit or loss on sale of available-for-sale investments		**–**	(73)	(25)
Net gains on investment in debt instruments measured at fair value through other comprehensive income		**2**	–	–
Share of other comprehensive income of associates, net of tax		**1**	–	–
Tax on items that may be reclassified subsequently to profit or loss	7	**12**	33	(34)
Total items from continuing operations that may be reclassified subsequently to profit or loss		**256**	(559)	432
Other comprehensive income for the year, net of tax from continuing operations		**303**	224	578
Other comprehensive income for the year, net of tax from discontinued operations[2]	10	**36**	147	42
Other comprehensive income for the year, net of tax		**339**	371	620
Total comprehensive income for the year from continuing operations		**1,805**	3,773	2,388
Total comprehensive income for the year from discontinued operations	10	**48**	149	6,026
Total comprehensive income for the year		**1,853**	3,922	8,414
Attributable to:				
Equity shareholders of the parent				
From continuing operations		**1,801**	3,773	2,389
From discontinued operations		**48**	149	6,026
		1,849	3,922	8,415
Non-controlling interests				
From continuing operations		**4**	–	(1)

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas HoldCo Limited as a discontinued operation in the current period (see note 1C and note 10).
2. The other comprehensive income from discontinued operations relates to the items of other comprehensive income of Cadent (investment through Quadgas HoldCo Limited), comprising mainly £35 million (2018: £142 million; 2017: £nil) remeasurement gains on pension assets and post-retirement benefit obligations and a £1 million (2018: £5 million; 2017: £nil) net gain in respect of cash flow hedges. Both items are shown net of tax.

Consolidated statement of changes in equity
for the years ended 31 March

	Share capital £m	Share premium account £m	Retained earnings £m	Other equity reserves[1] £m	Total shareholders' equity £m	Non-controlling interests £m	Total equity £m
At 31 March 2016	447	1,326	16,305	(4,523)	13,555	10	13,565
Profit/(loss) for the year	–	–	7,795	–	7,795	(1)	7,794
Other comprehensive income for the year	–	–	84	536	620	–	620
Total comprehensive income/(loss) for the year	–	–	7,879	536	8,415	(1)	8,414
Equity dividends	–	–	(1,463)	–	(1,463)	–	(1,463)
Scrip dividend-related share issue[2]	2	(2)	–	–	–	–	–
Purchase of treasury shares	–	–	(189)	–	(189)	–	(189)
Issue of treasury shares	–	–	18	–	18	–	18
Purchase of own shares	–	–	(6)	–	(6)	–	(6)
Other movements in non-controlling interests	–	–	–	–	–	7	7
Share-based payments	–	–	35	–	35	–	35
Tax on share-based payments	–	–	3	–	3	–	3
At 31 March 2017	449	1,324	22,582	(3,987)	20,368	16	20,384
Profit for the year	–	–	3,550	–	3,550	1	3,551
Other comprehensive income/(loss) for the year	–	–	925	(553)	372	(1)	371
Total comprehensive income/(loss) for the year	–	–	4,475	(553)	3,922	–	3,922
Equity dividends	–	–	(4,487)	–	(4,487)	–	(4,487)
Scrip dividend-related share issue[2]	3	(3)	–	–	–	–	–
Purchase of treasury shares	–	–	(1,017)	–	(1,017)	–	(1,017)
Issue of treasury shares	–	–	33	–	33	–	33
Purchase of own shares	–	–	(5)	–	(5)	–	(5)
Share-based payments	–	–	16	–	16	–	16
Tax on share-based payments	–	–	2	–	2	–	2
At 31 March 2018 (as previously reported)	452	1,321	21,599	(4,540)	18,832	16	18,848
Impact of transition to IFRS 9 and IFRS 15[3]	–	–	(268)	72	(196)	–	(196)
At 1 April 2018 (as restated)	452	1,321	21,331	(4,468)	18,636	16	18,652
Profit for the year	–	–	1,511	–	1,511	3	1,514
Other comprehensive income for the year	–	–	89	249	338	1	339
Total comprehensive income for the year	–	–	1,600	249	1,849	4	1,853
Equity dividends	–	–	(1,160)	–	(1,160)	–	(1,160)
Scrip dividend-related share issue[2]	6	(7)	–	–	(1)	–	(1)
Issue of treasury shares	–	–	18	–	18	–	18
Purchase of own shares	–	–	(2)	–	(2)	–	(2)
Share-based payments	–	–	27	–	27	–	27
Cash flow hedges transferred to the statement of financial position, net of tax	–	–	–	(18)	(18)	–	(18)
At 31 March 2019	**458**	**1,314**	**21,814**	**(4,237)**	**19,349**	**20**	**19,369**

1. For further details of other equity reserves, see note 28.
2. Included within the share premium account are costs associated with scrip dividends.
3. For further details of the impact of the transition to IFRS 9 and IFRS 15, see note 37.

Consolidated statement of financial position
as at 31 March

	Notes	2019 £m	2018 £m
Non-current assets			
Goodwill	11	**5,869**	5,444
Other intangible assets	12	**1,084**	899
Property, plant and equipment	13	**43,913**	39,853
Other non-current assets	14	**264**	115
Pension assets	25	**1,567**	1,409
Financial and other investments	15	**667**	899
Investments in joint ventures and associates	16	**608**	2,168
Derivative financial assets	17	**1,045**	1,319
Total non-current assets		**55,017**	52,106
Current assets			
Inventories and current intangible assets	18	**370**	341
Trade and other receivables	19	**3,153**	2,798
Current tax assets		**126**	114
Financial and other investments	15	**1,981**	2,694
Derivative financial assets	17	**108**	405
Cash and cash equivalents	20	**252**	329
Assets held for sale	10	**1,956**	–
Total current assets		**7,946**	6,681
Total assets		**62,963**	58,787
Current liabilities			
Borrowings	21	**(4,472)**	(4,447)
Derivative financial liabilities	17	**(350)**	(401)
Trade and other payables	22	**(3,769)**	(3,453)
Contract liabilities	23	**(61)**	–
Current tax liabilities		**(161)**	(123)
Provisions	26	**(316)**	(273)
Total current liabilities		**(9,129)**	(8,697)
Non-current liabilities			
Borrowings	21	**(24,258)**	(22,178)
Derivative financial liabilities	17	**(833)**	(660)
Other non-current liabilities	24	**(808)**	(1,317)
Contract liabilities	23	**(933)**	–
Deferred tax liabilities	7	**(3,965)**	(3,636)
Pensions and other post-retirement benefit obligations	25	**(1,785)**	(1,672)
Provisions	26	**(1,883)**	(1,779)
Total non-current liabilities		**(34,465)**	(31,242)
Total liabilities		**(43,594)**	(39,939)
Net assets		**19,369**	18,848
Equity			
Share capital	27	**458**	452
Share premium account		**1,314**	1,321
Retained earnings		**21,814**	21,599
Other equity reserves	28	**(4,237)**	(4,540)
Total shareholders' equity		**19,349**	18,832
Non-controlling interests		**20**	16
Total equity		**19,369**	18,848

The consolidated financial statements set out on pages 103 – 188 were approved by the Board of Directors on 15 May 2019 and were signed on its behalf by:

Sir Peter Gershon Chairman
Andy Agg Chief Financial Officer

National Grid plc
Registered number: 4031152

Consolidated cash flow statement
for the years ended 31 March

	Notes	2019 £m	2018[1] £m	2017 £m
Cash flows from operating activities				
Total operating profit from continuing operations	2(b)	**2,870**	3,493	3,208
Adjustments for:				
Exceptional items and remeasurements	5	**572**	(36)	565
Depreciation, amortisation and impairment		**1,588**	1,530	1,481
Share-based payments		**27**	16	32
Changes in working capital		**40**	118	151
Changes in provisions		**(110)**	(206)	(181)
Changes in pensions and other post-retirement benefit obligations		**(123)**	(239)	(768)
Cash flows relating to exceptional items		**(400)**	26	(36)
Cash generated from operations – continuing operations		**4,464**	4,702	4,452
Tax (paid)/recovered		**(75)**	8	(132)
Net cash inflow from operating activities – continuing operations		**4,389**	4,710	4,320
Net cash (used in)/inflow from operating activities – discontinued operations	10	**(71)**	(207)	909
Cash flows from investing activities				
Acquisition of financial investments		**(89)**	(2)	–
Investments in joint ventures and associates		**(143)**	(129)	(76)
Loans to joint ventures and associates		**(31)**	(68)	(61)
Disposal of financial investments		**18**	134	–
Disposal of 61% interest in UK Gas Distribution		**–**	(20)	5,454
Purchases of intangible assets		**(306)**	(173)	(223)
Purchases of property, plant and equipment		**(3,635)**	(3,738)	(3,296)
Disposals of property, plant and equipment		**38**	10	18
Dividends received from joint ventures and associates		**68**	69	99
Interest received		**68**	30	51
Net movements in short-term financial investments		**822**	5,953	(5,600)
Net cash flow (used in)/from investing activities – continuing operations		**(3,190)**	2,066	(3,634)
Net cash flow from/(used in) investing activities – discontinued operations[2]	10	**156**	171	(680)
Cash flows from financing activities				
Purchase of treasury shares		**–**	(1,017)	(189)
Proceeds from issue of treasury shares		**17**	33	18
Purchase of own shares		**(2)**	(5)	(6)
Proceeds received from loans		**2,932**	1,941	2,463
Repayment of loans		**(1,969)**	(2,156)	(1,616)
Net movements in short-term borrowings and derivatives		**(268)**	(772)	90
Interest paid		**(914)**	(853)	(839)
Dividends paid to shareholders		**(1,160)**	(4,487)	(1,463)
Net cash flow used in financing activities – continuing operations		**(1,364)**	(7,316)	(1,542)
Net cash flow (used in)/from financing activities – discontinued operations	10	**–**	(231)	1,611
Net (decrease)/increase in cash and cash equivalents	29(a)	**(80)**	(807)	984
Disposal of bank overdraft in UK Gas Distribution		**–**	–	15
Exchange movements		**3**	(3)	16
Cash and cash equivalents at start of year		**329**	1,139	124
Cash and cash equivalents at end of year	20	**252**	329	1,139

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas HoldCo Limited as a discontinued operation in the current period (see note 1C and note 10).
2. Receipts of dividends from Quadgas HoldCo Limited of £133 million (2018: £144 million) and interest of £23 million (2018: £27 million).

Notes to the consolidated financial statements – analysis of items in the primary statements

1. Basis of preparation and recent accounting developments

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

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

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

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

These consolidated financial statements were approved for issue by the Board on 15 May 2019.

These consolidated financial statements have been prepared in accordance with International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) and related interpretations as issued by the IASB and IFRS as adopted by the EU. They are prepared on the basis of all IFRS accounting standards and interpretations that are mandatory for periods ended 31 March 2019 and in accordance with the Companies Act 2006 applicable to companies reporting under IFRS and Article 4 of the EU IAS Regulation. The comparative financial information has also been prepared on this basis.

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

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

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

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

A. Going concern

The Directors considered it appropriate to prepare the financial statements on a going concern basis, having considered the Company's cash flow forecasts with respect to business planning and treasury management activities. The going concern basis presumes that the Group has adequate resources to remain in operation, and that the Directors intend it to do so, for at least one year from the date the financial statements are signed.

B. Basis of consolidation

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

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

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

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

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

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

C. Treatment of interests in Quadgas HoldCo Limited (Quadgas) – discontinued operations and held for sale

Following the Group's disposal of a 61% controlling stake in the UK Gas Distribution business on 31 March 2017, we have decided to exercise the options over the retained 39% interest in the business (held through Quadgas) and the sale is expected to complete at the end of June 2019, subject to customary regulatory approvals. Accordingly, our interests have been classified as held for sale with effect from 30 June 2018. The Quadgas disposal group comprises our equity investment in Quadgas, our shareholder loan to Quadgas, the Further Acquisition Agreement (FAA) derivative and the Remaining Acquisition Agreement (RAA) derivative. Refer to note 10 for further details.

We have also treated the results of the disposal group as a discontinued operation in the consolidated income statement for the current year and we have restated our prior year comparatives for 2018 on the same basis. The results of the UK Gas Distribution business were already treated as a discontinued operation for the year ended 31 March 2017 with certain true ups (relating to completion accounts) to the disposal of the controlling stake recorded within discontinued operations for the year ended 31 March 2018. The reclassification impacts the consolidated income statement, the consolidated statement of comprehensive income and consolidated cash flow statement, as well as earnings per share (EPS) split between continuing and discontinued operations.

Notes to the consolidated financial statements – analysis of items in the primary statements continued

1. Basis of preparation and recent accounting developments continued

D. Foreign currencies

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

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

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

E. Areas of judgement and key sources of estimation uncertainty

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

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

- Categorisation of certain items as exceptional items or remeasurements and the definition of adjusted earnings (see notes 5 and 8). In applying the Group's exceptional items framework, we have considered a number of key matters, as detailed in note 5.
- In addition, we have exercised our judgement in concluding that it is appropriate to classify our investment in and shareholder loan to Quadgas, along with the related Further Acquisition Agreement (FAA) and Remaining Acquisition Agreement (RAA) derivatives, as held for sale and as a discontinued operation, as detailed in note 10.

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

- valuation of liabilities for pensions and other post-retirement benefits (see note 25); and
- the cash flows applied in determining the environmental provisions (see note 26).

In order to illustrate the impact that changes in assumptions could have on our results and financial position, we have included sensitivity analyses in note 35.

F. Accounting policy choices

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

- Presentational formats: we use the nature of expense method for our income statement and aggregate our statement of financial position to net assets and total equity. In the income statement, we present subtotals of total operating profit, profit before tax and profit after tax from continuing operations, together with additional subtotals excluding exceptional items and remeasurements as a result of the three columnar presentation described earlier. Exceptional items and remeasurements are presented in a separate column on the face of the income statement.
- Financial instruments: we normally opt to apply hedge accounting in most circumstances where this is permitted (see note 32(e)).

G. New IFRS accounting standards effective for the year ended 31 March 2019

The Group adopted IFRS 9 'Financial Instruments' and IFRS 15 'Revenue from Contracts with Customers' with effect from 1 April 2018. We have applied the modified retrospective approach permitted in the Standards whereby prior year comparatives have not been restated on adoption. Instead, the cumulative transition adjustments are reflected through reserves. Refer to note 37 for full details of the impact and transition adjustments arising on adoption.

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

- Annual improvements to IFRSs 2014-2016 Cycle;
- Amendments to IFRS 2 'Share-based payment'; and
- IFRIC 22 'Foreign Currency Transactions and Advance Consideration'.

1. Basis of preparation and recent accounting developments continued

H. New IFRS accounting standards and interpretations not yet adopted

The Group has considered the impact of the following new IFRS standards or interpretations that have not yet been adopted:

i) IFRS 16 'Leases'

IFRS 16 'Leases' is effective for National Grid for the year ending 31 March 2020. IFRS 16 introduces a single lease accounting model for lessees (rather than the current distinction between operating and finance leases). A contract is, or contains, a lease, if it provides the right to control the use of an identified asset for a specific period of time in exchange for consideration. The new standard will result in our operating leases being accounted for in the consolidated statement of financial position as 'right-of-use' assets with corresponding lease liabilities also recognised. It will therefore increase both our assets and liabilities (including net debt). In future periods, this will change the timing and presentation in the consolidated income statement as it will result in an increase in finance costs and depreciation largely offset by a reduction in the previously straight-line operating costs.

Transition options

We will apply IFRS 16 with effect from 1 April 2019 using the modified retrospective approach. Comparatives will not be restated on adoption. Instead, a cumulative adjustment to our opening consolidated statement of financial position will be reflected in retained earnings as well as recognition of the opening right-of-use assets and additional lease liabilities and associated deferred tax. For short-term leases (lease term of 12 months or less) and leases of low-value assets (such as computers), the Group will continue to recognise a lease expense on a straight-line basis as permitted by IFRS 16.

In preparing for the transition, we have elected to apply the practical expedient to grandfather our previous assessments of whether contracts were previously accounted for as a lease, as permitted by the standard, instead of reassessing all significant contracts as at the date of initial application to determine whether they met the IFRS 16 definition of a lease.

We have elected to apply the practical expedient on transition, which permits right-of-use assets to be measured at an amount equal to the lease liability on adoption of the standard (adjusted for any prepaid or accrued lease expenses).

In addition, we have also elected the option to adjust the carrying amounts of the right-of-use assets as at 1 April 2019 for onerous lease provisions that had been recognised on the Group consolidated statement of financial position as at 31 March 2019, rather than performing impairment assessments on transition.

Impact of transition

As at the reporting date, the Group has non-cancellable operating lease commitments of £0.3 billion (see note 30), of which the majority are in the US. A further £0.3 billion of lease liabilities is recognised due to the requirement in IFRS 16 to recognise lease liabilities for the term that we are reasonably certain to exercise lease extension or lease termination options for, rather than only for the period of the minimum contractual term that is used in determining our lease liability commitments. This is partially offset by the £0.2 billion impact of discounting our lease liabilities at the incremental borrowing rate for each lease. There are some immaterial short term and low value leases, which will be recognised on a straight-line basis as an expense in profit and loss over the remaining lease term.

As a result, the Group expects to recognise additional right-of-use assets and lease liabilities (which are included within net debt) of approximately £0.4 billion at 1 April 2019 with no material additional net deferred tax. This is in addition to the £0.3 billion of finance leases already recognised on the consolidated statement of financial position under IAS 17. There will be no material net impact on net assets.

Accordingly, the Group does not expect the impact of IFRS 16 on profit after tax as a result of adopting the new standard to be material. However, it will result in an increase in operating profit due to the operating costs now being replaced with depreciation and interest charges.

We expect operating cash flows to increase and financing cash flows to decrease by less than £0.1 billion, because repayment of the principal portion of the lease liabilities will be classified as cash flows from financing activities rather than operating cash flows.

ii) Other

In addition, the following new accounting standards and amendments to existing standards have been issued but are not yet effective or have not yet been endorsed by the EU:

- IFRIC 23 'Uncertainty over Income Tax Treatments';
- Amendments to IAS 28 'Investments in Associates – Long-term Interests in Associates and Joint Ventures';
- Annual Improvements to IFRS Standards 2015-2017 Cycle;
- IFRS 17 'Insurance Contracts';
- Amendments to IAS 19 'Employee Benefits';
- Amendments to IFRS 3 'Business Combinations';
- Amendments to the References to the Conceptual Framework; and
- Amendments to IAS 1 and IAS 8: Definition of material.

Effective dates remain subject to the EU endorsement process.

The Group is currently assessing the impact of the above standards, but they are not expected to have a material impact. The Group has not adopted any other standard, amendment or interpretation that has been issued but is not yet effective.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

2. Segmental analysis

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

The results of our three principal businesses are reported to the Board of Directors and are accordingly treated as reportable operating segments. All other operating segments are reported to the Board of Directors on an aggregated basis. The following table describes the main activities for each reportable operating segment:

UK Electricity Transmission	The high-voltage electricity transmission networks in England and Wales and Great Britain system operator.
UK Gas Transmission	The high-pressure gas transmission networks in Great Britain and system operator in Great Britain.
US Regulated	Gas distribution networks, electricity distribution networks and high-voltage electricity transmission networks in New York and New England and electricity generation facilities in New York.

The National Grid Ventures (NGV) operating segment represents our key strategic growth area outside our regulated core business in competitive markets across the US and the UK. The business comprises all commercial operations in metering, LNG at the Isle of Grain in the UK and electricity interconnectors, with a focus on investment and future activities in emerging growth areas. NGV does not currently meet the thresholds set out in IFRS 8 to be identified as a separate reportable segment and therefore its results are not required to be separately presented. However, certain additional disclosure is included in the footnotes below.

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

The segmental information is presented in relation to continuing operations only and therefore does not include the profits and losses relating to our interest in Quadgas for 2018 and 2019 or those associated with the UK Gas Distribution business (see note 10).

(a) Revenue

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

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

	2019			2018			2017		
	Total sales £m	**Sales between segments £m**	**Sales to third parties £m**	Total sales £m	Sales between segments £m	Sales to third parties £m	Total sales £m	Sales between segments £m	Sales to third parties £m
Operating segments – continuing operations:									
UK Electricity Transmission	**3,351**	**(20)**	**3,331**	4,154	(28)	4,126	4,439	(29)	4,410
UK Gas Transmission	**896**	**(12)**	**884**	1,091	(9)	1,082	1,080	(99)	981
US Regulated	**9,846**	**–**	**9,846**	9,272	–	9,272	8,931	–	8,931
NGV and Other[1]	**876**	**(4)**	**872**	776	(6)	770	713	–	713
Total revenue from continuing operations	**14,969**	**(36)**	**14,933**	15,293	(43)	15,250	15,163	(128)	15,035
Split by geographical areas – continuing operations:									
UK			**5,045**			5,938			6,064
US			**9,888**			9,312			8,971
			14,933			15,250			15,035

1. Included within NGV and Other is £597 million (2018: £593 million; 2017: £604 million) of revenue relating to NGV.

2. Segmental analysis continued

(b) Operating profit

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

	Before exceptional items and remeasurements			After exceptional items and remeasurements		
	2019 £m	2018[1] £m	2017 £m	**2019 £m**	2018[1] £m	2017 £m
Operating segments – continuing operations:						
UK Electricity Transmission	**1,015**	1,041	1,372	**778**	1,041	1,361
UK Gas Transmission	**303**	487	511	**267**	487	507
US Regulated	**1,724**	1,698	1,713	**1,425**	1,734	1,278
NGV and Other[2,3]	**400**	231	177	**400**	231	62
Total operating profit from continuing operations	**3,442**	3,457	3,773	**2,870**	3,493	3,208
Split by geographical area – continuing operations:						
UK	**1,695**	1,840	2,118	**1,422**	1,840	1,988
US	**1,747**	1,617	1,655	**1,448**	1,653	1,220
	3,442	3,457	3,773	**2,870**	3,493	3,208

Below we reconcile total operating profit from continuing operations to profit before tax from continuing operations. Operating exceptional items and remeasurements of £237 million charge (2018: £nil; 2017: £11 million charge) detailed in note 5 are attributable to UK Electricity Transmission; £36 million charge (2018: £nil; 2017: £4 million charge) to UK Gas Transmission; £299 million charge (2018: £36 million gain; 2017: £435 million charge) to US Regulated; and £nil (2018: £nil; 2017: £115 million charge) to NGV and Other.

Reconciliation to profit before tax:						
Operating profit from continuing operations	**3,442**	3,457	3,773	**2,870**	3,493	3,208
Finance income	**73**	127	53	**88**	127	53
Finance costs	**(1,066)**	(1,128)	(1,082)	**(1,157)**	(1,009)	(1,140)
Share of post-tax results of joint ventures and associates	**40**	44	63	**40**	49	63
Profit before tax from continuing operations	**2,489**	2,500	2,807	**1,841**	2,660	2,184

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C and note 10).
2. Included within NGV and Other is £263 million (2018: £234 million; 2017: £239 million) of operating profit (both before and after exceptional items and remeasurements) relating to NGV. Also included in this balance for the year ended 31 March 2019 is £181 million (2018: £84 million; 2017: £55 million) of operating profit in relation to the Property business.
3. NGV and Other includes gains of £95 million (2018: £nil; 2017: £nil) in relation to cash received in respect of two legal settlements.

(c) Capital expenditure

	Net book value of property, plant and equipment and other intangible assets			Capital expenditure[1]			Depreciation, amortisation and impairment		
	2019 £m	2018 £m	2017 £m	**2019 £m**	2018 £m	2017 £m	**2019 £m**	2018 £m	2017 £m
Operating segments:									
UK Electricity Transmission	**13,288**	13,028	12,515	**925**	999	1,027	**(628)**	(475)	(421)
UK Gas Transmission	**4,412**	4,280	4,165	**308**	310	214	**(181)**	(194)	(186)
US Regulated	**24,542**	20,953	21,638	**2,650**	2,424	2,247	**(700)**	(635)	(642)
NGV and Other[2]	**2,755**	2,491	2,430	**438**	341	247	**(226)**	(226)	(232)
Total from continuing operations	**44,997**	40,752	40,748	**4,321**	4,074	3,735	**(1,735)**	(1,530)	(1,481)
Split by geographical area – continuing operations:									
UK	**19,343**	18,772	18,102	**1,584**	1,527	1,357	**(931)**	(804)	(753)
US	**25,654**	21,980	22,646	**2,737**	2,547	2,378	**(804)**	(726)	(728)
	44,997	40,752	40,748	**4,321**	4,074	3,735	**(1,735)**	(1,530)	(1,481)
Asset type:									
Property, plant and equipment	**43,913**	39,853	39,825	**4,015**	3,901	3,507	**(1,560)**	(1,392)	(1,348)
Non-current intangible assets	**1,084**	899	923	**306**	173	228	**(175)**	(138)	(133)
Total from continuing operations	**44,997**	40,752	40,748	**4,321**	4,074	3,735	**(1,735)**	(1,530)	(1,481)

1. Represents additions to property, plant and equipment and non-current intangibles but excludes additional investments in and loans to joint ventures and associates.
2. Included within NGV and Other are assets with a net book value of £1,635 million (2018: £1,454 million; 2017: £1,432 million), capital expenditure of £317 million (2018: £186 million; 2017: £98 million) and depreciation, amortisation and impairment of £114 million (2018: £143 million; 2017: £143 million) relating to NGV.

Total non-current assets other than financial instruments and pension assets located in the UK and US were £30,072 million and £21,787 million respectively as at 31 March 2019 (31 March 2018: UK £20,816 million, US £27,663 million; 31 March 2017: UK £20,045 million, US £28,951 million).

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

3. Revenue

Revenue arises in the course of the ordinary activities and principally comprises:
- transmission services;
- distribution services; and
- generation services.

Transmission services, distribution services and certain other services (excluding rental income but including metering) fall within the scope of IFRS 15 'Revenue from Contracts with Customers', whereas generation services are accounted for under the leasing standard as rental income, presented within revenue. Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties and value added tax. The Group recognises revenue when it transfers control over a product or service to a customer.

IFRS 15 was effective from 1 April 2018. As explained in note 37, the standard has been applied prospectively and therefore the analysis below is only provided for the current period. The impact of adoption on the opening consolidated statement of financial position and reserves is disclosed in note 37, with the main change to profit being in relation to customer connection income in the UK Electricity Transmission and US Regulated businesses. Note 37 includes the quantification of the impact for the year if revenue were still to have been accounted for under IAS 18, which arises from a change in the recognition of receipts from other UK network owners (and has no impact on profit).

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

(a) UK Electricity Transmission

The UK Electricity Transmission segment principally generates revenue by providing electricity transmission services (both as transmission owner in England and Wales and system operator in Great Britain). Our business operates as a monopoly regulated by Ofgem, which has established price control mechanisms that set the amount of annual allowed returns our business can earn. The IFRS revenues we record are principally a function of volumes and price. Price is determined prior to our financial year end with reference to the regulated allowed returns and estimated annual volumes. Where revenue received or receivable exceeds the maximum amount permitted by 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. As part of our regulatory agreements we are entitled to recover certain costs directly from customers (pass-through costs). These amounts are included in the overall calculation of allowed revenue as stipulated by regulatory agreements.

The transmission of high-voltage electricity encompasses the following principal services:
- the supply of high-voltage electricity (including both transmission and system operator charges); and
- construction work (principally for connections).

For the supply of high-voltage electricity, revenue is recognised based on capacity and volumes. Our performance obligation is satisfied over time as our customers make use of our network. We bill monthly in arrears and our payment terms are up to 60 days.

For construction work relating to connections, customers can either pay over the useful life of the connection or upfront. Revenue is recognised over time, as we provide access to our network, and where the customer pays upfront, revenues are deferred and released over the life of the connection.

For other construction where there is no consideration for any future services, for example diversions (being the re-routing of network assets at our customers' request), revenues are recognised as the construction work is completed.

(b) UK Gas Transmission

The UK Gas Transmission segment of the Group principally generates revenue by providing gas transmission services to our customers (both as transmission owner and as system operator) in Great Britain. Similar to our UK Electricity Transmission business, our business operates as a monopoly regulated by Ofgem. The price control mechanism in place that determines our annual allowances is also similar, as is the way in which revenue is recorded.

The transmission of gas encompasses the following principal services:
- the supply of high-pressure gas (including both transmission and system operator charges); and
- construction work (principally for connections).

For the supply of high-pressure gas, revenue is recognised based on capacity and volumes. Our performance obligation is satisfied over time as our customers make use of our network, and we bill monthly in arrears with payment terms of up to 45 days.

For construction work relating to connections, customers pay for the connection upfront. Revenue is recognised over time, as we provide access to our network. Where revenues are received upfront, they are deferred and released over the life of the connection.

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

3. Revenue continued

(c) US Regulated

The US Regulated segments of the Group principally generate revenue by providing gas and electricity distribution services in New York and New England, high voltage electricity transmission services in New York and New England, and electricity generation in New York.

Distribution services

Provision of gas and electric distribution services in New York and New England. This comprises the following principal services:

- Gas and electricity distribution: revenue is recognised based on usage (over time) by customers and billed monthly. Payment terms are 30 days; and
- Connections: revenue is recognised over time, as we provide access to our network. Where payments are made upfront, they are deferred over the life of the asset.

Transmission services

Provision of electricity transmission services to customers and operation of electricity transmission facilities. Our principal services are:

- Electricity transmission: revenue is recognised based on usage by customers (over time) and billed monthly. Payment terms are 30 days; and
- Connections: revenue is recognised over time, as we provide access to our network. Where payments are made upfront, they are deferred over the life of the asset.

Electricity generation

Provision of energy services and supply capacity to produce energy for the use of customers of the Long Island Power Authority (LIPA) through a power supply agreement. This falls within the scope of the leasing standard, where we act as lessor with rental income being recorded as other income, which forms part of total revenue.

(d) NGV and Other

NGV and Other includes electricity interconnectors, LNG at Grain, commercial metering, property sales and rental income, and insurance.

The Group recognises revenue from transmission services through interconnectors and from LNG at Grain by means of customers' use of capacity and volumes. Revenue is recognised over time and is billed monthly. Payment terms are 30 days.

Other revenue in the scope of IFRS 15 principally includes revenues from our metering businesses. Revenue is recognised over time and is billed monthly. Payment terms are 30 days.

Other revenue, recognised in accordance with standards other than IFRS 15, includes property sales by our UK commercial property business and rental income. Property sales are recorded at a point in time (when the sale is legally completed) and rental income is recorded over time.

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

Revenue for the year ended 31 March 2019	UK Electricity Transmission £m	UK Gas Transmission £m	US Regulated £m	NGV and Other £m	Total £m
Revenue under IFRS 15					
Transmission	3,325	833	370	313	4,841
Distribution	–	–	8,941	–	8,941
Other	–	–	–	284	284
Total IFRS 15 revenue	3,325	833	9,311	597	14,066
Other revenue					
Generation	–	–	367	–	367
Other	6	51	168	275	500
Total other revenue	6	51	535	275	867
Total revenue from continuing operations	3,331	884	9,846	872	14,933

Geographical split for the year ended 31 March 2019	UK Electricity Transmission £m	UK Gas Transmission £m	US Regulated £m	NGV and Other £m	Total £m
Revenue under IFRS 15					
UK	3,325	833	–	585	4,743
US	–	–	9,311	12	9,323
Total IFRS 15 revenue	3,325	833	9,311	597	14,066
Other revenue					
UK	6	51	–	245	302
US	–	–	535	30	565
Total other revenue	6	51	535	275	867
Total revenue from continuing operations	3,331	884	9,846	872	14,933

Revenue to be recognised in future periods, presented as contract liabilities of £994 million (see note 23), relates to contributions in aid of construction. Revenue is recognised over the life of the asset. The asset lives for connections in UK Electricity Transmission, UK Gas Transmission and US Regulated are 40 years, 36 years (to 2055), and up to 47 years respectively. The weighted average amortisation period is 43 years.

Future revenues in relation to unfulfilled performance obligations not yet received in cash amount to £3.5 billion. £1.6 billion relates to connection contracts in UK Electricity Transmission which will be recognised as revenue over 30 years and £1.8 billion relates to revenues to be earned under LNG at Grain contracts over 11 years. The remaining amount will be recognised as revenue over 5 years.

The amount of revenue recognised for the year ended 31 March 2019 from performance obligations satisfied (or partially satisfied) in previous periods, mainly due to the changes in the estimate of the stage of completion, is £nil.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

4. Operating costs

Below we have presented separately certain items included in our operating costs from continuing operations. These include a breakdown of payroll costs (including disclosure of amounts paid to key management personnel) and fees paid to our auditors.

Rentals under operating leases are charged to the income statement on a straight-line basis over the term of the relevant lease.

	Before exceptional items and remeasurements			Exceptional items and remeasurements			Total		
	2019 £m	2018 £m	2017 £m	**2019 £m**	2018 £m	2017 £m	**2019 £m**	2018 £m	2017 £m
Depreciation, amortisation and impairment	**1,588**	1,530	1,481	**147**	–	–	**1,735**	1,530	1,481
Payroll costs	**1,703**	1,648	1,578	**149**	–	–	**1,852**	1,648	1,578
Purchases of electricity	**1,504**	1,299	1,143	**(50)**	(14)	(46)	**1,454**	1,285	1,097
Purchases of gas	**1,644**	1,539	1,241	**(2)**	4	(22)	**1,642**	1,543	1,219
Rates and property taxes	**1,108**	1,057	1,042	**–**	–	–	**1,108**	1,057	1,042
Balancing Services Incentive Scheme	**1,196**	1,012	1,120	**–**	–	–	**1,196**	1,012	1,120
Payments to other UK network owners[1]	**–**	1,043	1,008	**–**	–	–	**–**	1,043	1,008
Other	**2,748**	2,665	2,649	**328**	(26)	633	**3,076**	2,639	3,282
	11,491	11,793	11,262	**572**	(36)	565	**12,063**	11,757	11,827
Operating costs include:									
Inventory consumed							**415**	367	296
Operating leases[2]							**46**	51	43
Research and development expenditure							**19**	13	14

1. Under IFRS 15, for 2019 revenue and associated payments to other UK network owners are presented on a net basis. Refer to note 37.
2. Following a review during the year, the comparatives have been refined to provide consistency with the current year.

(a) Payroll costs

	2019 £m	2018 £m	2017 £m
Wages and salaries[1]	**2,084**	1,998	1,852
Social security costs	**156**	157	145
Defined contribution scheme costs	**72**	65	58
Defined benefit pension costs	**232**	156	151
Share-based payments	**27**	16	32
Severance costs (excluding pension costs)	**76**	7	5
	2,647	2,399	2,243
Less: payroll costs capitalised	**(795)**	(751)	(665)
Total payroll costs	**1,852**	1,648	1,578

1. Included within wages and salaries are US other post-retirement benefit costs of £48 million (2018: £46 million; 2017: £53 million). For further information refer to note 25.

(b) Number of employees

	31 March 2019	**Monthly average 2019**	31 March 2018	Monthly average 2018	31 March 2017	Monthly average 2017
UK	**5,962**	**6,227**	6,517	6,431	6,265	6,291
US	**16,614**	**16,669**	16,506	16,274	15,867	15,752
Total number of employees	**22,576**	**22,896**	23,023	22,705	22,132	22,043

4. Operating costs continued

(c) Key management compensation

	2019 £m	2018 £m	2017 £m
Short-term employee benefits	7	8	8
Post-employment benefits	1	1	1
Share-based payments	3	3	6
Total key management compensation	11	12	15

Key management compensation relates to the Board, including the Executive Directors and Non-executive Directors for the years presented.

(d) Directors' emoluments

Details of Executive Directors' emoluments are contained in the Remuneration Report on page 79 and those of Non-executive Directors on page 84.

(e) Auditors' remuneration

Auditors' remuneration is presented below in accordance with the requirements of the Companies Act 2006 and the principal accountant fees and services disclosure requirements of Item 16C of Form 20-F:

	2019 £m	2018 £m	2017 £m
Audit fees payable to the Parent Company's auditors and their associates in respect of:[1]			
Audit of the Parent Company's individual and consolidated financial statements[2]	1.6	2.7	1.5
The auditing of accounts of any associate of the Company[3]	7.2	9.3	13.7
Other services supplied[4]	5.2	3.9	4.6
	14.0	15.9	19.8
Total other services[5]			
Tax fees:			
Tax compliance services	–	0.3	0.4
Tax advisory services	–	–	0.1
All other fees:			
Other assurance services[6]	1.1	0.7	4.6
Services relating to corporate finance transactions not covered above[7]	–	–	5.9
Other non-audit services not covered above[8]	2.2	0.9	6.3
	3.3	1.9	17.3
Total auditors' remuneration	17.3	17.8	37.1

1. Deloitte LLP became the Group's principal auditor for the year ended 31 March 2018. PricewaterhouseCoopers LLP (PwC) was the principal auditor for the year ended 31 March 2017.
2. Audit fees in each year represent fees for the audit of the Company's financial statements and regulatory reporting for the years ended 31 March 2019, 2018 and 2017.
3. The 2018 comparative has been updated following finalisation of the 2018 audit fee with the Audit Committee.
4. Other services supplied represent fees payable for services in relation to other statutory filings or engagements that are required to be carried out by the auditors. In particular, this includes fees for reports under section 404 of the US Public Company Accounting Reform and Investor Protection Act of 2002 (Sarbanes-Oxley), audit reports on regulatory returns and the review of interim financial statements for the six-month periods ended 30 September 2018, 2017 and 2016 respectively.
5. There were no audit related fees as described in Item 16C(b) of Form 20-F.
6. Principally amounts relating to assurance services provided in relation to comfort letters for debt issuances. In 2017, amounts represented assurance services undertaken by PwC in relation to the sale of UK Gas Distribution and data assurance work in respect of financial information included in US rate filings.
7. Vendor due diligence and other transaction services in relation to the sale of UK Gas Distribution.
8. Fees for other non-audit services – projects including services provided to the UK Property business, relating to evaluating possible options for the use of property assets. In 2017, services related principally to PwC assisting the Company with separation activities in relation to the sale of UK Gas Distribution.

The Audit Committee considers and makes recommendations to the Board, to be put to shareholders for approval at each AGM, in relation to the appointment, re-appointment, removal and oversight of the Company's independent auditors. The Committee also considers and approves the audit fees on behalf of the Board in accordance with the Competition and Market Authority Audit Order 2014. The auditors' remuneration is then put to shareholders at each AGM. Details of our policies and procedures in relation to non-audit services to be provided by the independent auditors are set out on page 62 of the Corporate Governance Report.

Certain services are prohibited from being performed by the external auditors under the Sarbanes-Oxley Act. Of the above services, none were prohibited.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

5. Exceptional items and remeasurements

To monitor our financial performance, we use a profit measure that excludes certain income and expenses. We call that measure 'business performance' or 'adjusted profit'. Business performance (which excludes exceptional items and remeasurements as defined below) is used by management to monitor financial performance as it is considered that it aids the comparability of our reported financial performance from year to year. We exclude items from business performance because, if included, these items could distort understanding of our performance for the year and the comparability between periods. This note analyses these items, which are included in our results for the year but are excluded from business performance.

Exceptional items and remeasurements from continuing operations

	2019 £m	2018[1] £m	2017 £m
Included within operating profit			
Exceptional items:			
Cost efficiency and restructuring programmes	**(204)**	–	–
Massachusetts Gas labour dispute	**(283)**	–	–
Impairment of nuclear connection development costs	**(137)**	–	–
Final settlement of LIPA MSA Transition	**–**	26	–
Environmental charges	**–**	–	(526)
Gas holder demolition costs	**–**	–	(107)
	(624)	26	(633)
Remeasurements – commodity contract derivatives	**52**	10	68
	(572)	36	(565)
Included within finance income and costs			
Remeasurements:			
Net (losses)/gains on derivative financial instruments	**(40)**	119	(58)
Net gains on financial assets at fair value through profit and loss	**15**	–	–
Net losses on financial liabilities at fair value through profit and loss	**(51)**	–	–
	(76)	119	(58)
Included within share of post-tax results of joint ventures and associates			
Deferred tax arising on the reduction in US corporation tax rate	**–**	5	–
Total included within profit before tax	**(648)**	160	(623)
Included within tax			
Exceptional items – credits arising on items not included in profit before tax:			
Deferred tax arising on the reduction in the UK corporation tax rate	**–**	–	94
Deferred tax arising on the reduction in the US corporation tax rate	**–**	1,510	–
Tax on exceptional items	**144**	(9)	227
Tax on remeasurements	**5**	(28)	(29)
	149	1,473	292
Total exceptional items and remeasurements after tax	**(499)**	1,633	(331)
Analysis of total exceptional items and remeasurements after tax			
Exceptional items after tax	**(480)**	1,532	(312)
Remeasurements after tax	**(19)**	101	(19)
Total exceptional items and remeasurements after tax	**(499)**	1,633	(331)

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C and note 10).

5. Exceptional items and remeasurements continued

Exceptional items

Management uses an exceptional items framework that has been discussed and approved by the Audit Committee. This follows a three-step process which considers the nature of the event, the financial materiality involved and any particular facts and circumstances. In considering the nature of the event, management focuses on whether the event is within the Group's control and how frequently such an event typically occurs. In determining the facts and circumstances, management considers factors such as ensuring consistent treatment between favourable and unfavourable transactions, the precedent for similar items, the number of periods over which costs will be spread or gains earned, and the commercial context for the particular transaction.

Items of income or expense that are considered by management for designation as exceptional items include significant restructurings, write-downs or impairments of non-current assets, significant changes in environmental or decommissioning provisions, integration of acquired businesses, gains or losses on disposals of businesses or investments and significant debt redemption costs as a consequence of transactions such as significant disposals or issues of equity, and the related tax as well as deferred tax arising on changes to corporation tax rates.

Costs arising from restructuring programmes include redundancy costs. Redundancy costs are charged to the consolidated income statement in the year in which a commitment is made to incur the costs and the main features of the restructuring plan have been announced to affected employees.

2019

In assessing certain items of income and expenditure against our exceptional items framework, we have concluded that the costs associated with the Massachusetts Gas labour dispute (£283 million), our cost efficiency and restructuring programme (£204 million) and impairments relating to two nuclear connection cancellations (£137 million) should be treated as exceptional (as described further below).

We also considered whether the £95 million income from two legal settlements received in the period should be classified as exceptional. However, we concluded it was appropriate to recognise the income in earnings before exceptional items (within NGV and Other), in line with the treatment of the original costs.

Cost efficiency and restructuring programmes: Our UK and US businesses incurred restructuring charges as we reviewed organisational structures, operational activities and relevant roles and responsibilities to ensure we are able to operate more efficiently and to continue to drive outperformance for customers and shareholders. In the UK these reviews were largely completed during the first half of the year, and we reported a £127 million exceptional charge at 30 September 2018, reflecting £100 million in severance and associated planning and support costs. A net charge of £52 million relating to pension costs is recognised within this amount. No significant additional operational costs have been incurred in the UK since 30 September 2018; however, during the second half of the year we commenced an equivalent programme for our US core business, which has resulted in a charge of £68 million, relating to severance and lease terminations following a decision to exit certain of our properties in New York City. The cash outflow for the year was £93 million.

Massachusetts Gas labour dispute: On 25 June 2018, National Grid implemented a workforce contingency plan across its Massachusetts Gas business following the expiration of contracts for the 1,250 members of the existing workforce. In early January 2019 we reached agreement with the two unions over employment terms and conditions, with affected staff members returning to work in late January 2019. Throughout the duration of the labour dispute, we employed experienced contractors alongside supervisors and workers from other areas of our business to ensure work continued safely, and external contractor activity returned to normal levels in February 2019. In presenting this year's financial statements, we have excluded the net incremental cost of £283 million on the basis that this ensures adjusted earnings presents a clear view of the financial performance of the US regulated business had the workforce contingency plan not been implemented. The total cash outflow related to the labour dispute was £320 million for the year.

Impairment of nuclear connection development costs: In November 2018, Toshiba announced the cancellation of its NuGen project to build a new nuclear power station at Moorside in Cumbria, and on 23 November 2018, NuGen terminated its connection agreement with UK Electricity Transmission. On 15 February 2019, Hitachi terminated its connection agreements in respect of its Horizon projects at Wylfa and Oldbury. As there is no realistic prospect of these schemes continuing in their present form, we have concluded that it is appropriate to impair the assets we had been developing for over 10 years. After deducting cash inflows relating to termination fees received of £13 million, the net impairment charge was £137 million.

2018

During the year, the Group reached an agreement with LIPA on an amount in final settlement of receivables and payables that arose following the cessation of the Management Services Agreement with LIPA in December 2013. The settlement resulted in a gain of £26 million, which has been recorded as exceptional, consistent with the treatment of gains and losses on the original transaction.

2017

In the US, the Group's most significant environmental liabilities relate to former manufactured gas plant (MGP) facilities formerly owned or operated by the Group. The sites are subject to both state and federal law in the US. Environmental reserves are re-evaluated at each reporting period. The expenditure is expected to be largely recoverable from rate payers but, under IFRS, no asset can be recorded for this. During 2017, the Group updated its assessment of the gross remediation costs at three key sites in New York, resulting in an increase of £481 million on an undiscounted basis.

The charge booked reflects the Group's best estimate of future cash outflow, based on notices received from state and federal authorities, and plans developed in response, supported by external consultants where appropriate. In some cases, judgement is also required regarding the Group's share of the estimated cost, principally at sites where other parties are also potentially liable but where no cost sharing agreement exists.

Also included within the above are charges relating to the impact of a change in the real discount rate from 2% to 1% on our provisions.

A provision of £107 million was made for the demolition of certain non-operational gas holders in the UK. Following the disposal of UK Gas Distribution, the land on which the gas holders are sited was transferred to the Group's UK property division. The Group's property division maximises our return from our land portfolio and therefore a constructive obligation exists to demolish the gas holders.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

5. Exceptional items and remeasurements continued

Remeasurements

Remeasurements comprise unrealised gains or losses recorded in the consolidated income statement arising from changes in the fair value of certain of our financial assets and liabilities accounted for at fair value through profit and loss (FVTPL). Consistent with prior periods, in the current period these assets and liabilities include commodity contract derivatives and financial derivative instruments to the extent that hedge accounting is not achieved or is not effective.

Following the adoption of IFRS 9 in the current period, this year we have also classified the unrealised gains or losses reported in profit and loss on certain additional assets and liabilities now treated at FVTPL within remeasurements. These relate to the financial assets (which fail the 'solely payments of principal and interest test' under IFRS 9), the money market fund investments used by Group Treasury for cash management purposes and certain financial liabilities which we elected to designate at FVTPL on transition. In all cases, these fair values increase or decrease because of changes in foreign exchange, commodity or other financial indices over which we have no control.

We report unrealised gains or losses relating to certain discrete classes of financial assets accounted for at FVTPL within business performance. These comprise our portfolio of investments made by National Grid Partners, and our investment in Sunrun Neptune 2016 LLC (within NGV and Other). The performance of these assets (including changes in fair value) are included in our assessment of business performance for the relevant business units.

Remeasurements excluded from business performance are made up of the following categories:

i) Net gains/(losses) on commodity contract derivatives represent mark-to-market movements on certain physical and financial commodity contract obligations in the US. These contracts primarily relate to the forward purchase of energy for supply to customers, or to the economic hedging thereof, that are required to be measured at fair value and that do not qualify for hedge accounting. Under the existing rate plans in the US, commodity costs are recoverable from customers although the timing of recovery may differ from the pattern of costs incurred.

ii) Net gains/(losses) on derivative financial instruments comprise gains/(losses) arising on derivative financial instruments reported in the consolidated income statement in relation to our debt financing and foreign exchange hedging of the investment funds held by our insurance captives. These exclude gains and losses for which hedge accounting has been effective, and have been recognised directly in the consolidated statement of other comprehensive income or are offset by adjustments to the carrying value of debt (see notes 17 and 32).

iii) Net gains/(losses) on financial assets measured at FVTPL comprise gains/(losses) on the investment funds held by our insurance captives which are categorised as FVTPL (see note 15).

iv) Net gains/(losses) on financial liabilities measured at FVTPL comprises the change in the fair value (excluding changes due to own credit risk) of a financial liability that has been designated at FVTPL on transition to IFRS 9 to reduce a measurement mismatch (see note 21).

Items included within tax

2018

The Tax Cuts and Jobs Act (Tax Reform), which was enacted on 22 December 2017, reduced the US corporate tax rate from 35% to 21% with effect from 1 January 2018. Deferred taxes at the reporting date have been measured using these enacted tax rates. This resulted in a one-off deferred tax credit in the year ended 31 March 2018. However, as described in note 11, we expect the overall impact of Tax Reform to be economically neutral for the Group.

2017

The Finance Act 2016, which was enacted on 15 September 2016, reduced the main rate of UK corporation tax to 17% with effect from 1 April 2020. Deferred tax balances have been calculated at this rate for the years ended 31 March 2019 and 31 March 2018.

6. Finance income and costs

This note details the interest income generated by our financial assets and interest expense incurred on our financial liabilities, primarily our financing portfolio (including our financing derivatives). It also includes the net interest on our pensions and other post-retirement assets. In reporting business performance, we adjust net financing costs to exclude any net gains or losses on financial instruments included in remeasurements (see note 5). In addition, where debt redemptions relate to exceptional transactions they are typically treated as exceptional.

The Group adopted IFRS 9 with effect from 1 April 2018. The comparatives are not required to be restated and are accounted for in accordance with IAS 39. Following the adoption of IFRS 9, finance income and costs remeasurements include unrealised gains and losses on certain assets and liabilities now treated at FVTPL. The interest income, dividends and interest expense on these items are included in finance income and finance costs before remeasurements, respectively.

	Notes	**2019 £m**	2018[1] £m	2017 £m
Finance income				
Interest income on financial instruments:				
Bank deposits and other financial assets		**54**	54	28
Dividends received on equities held at fair value through other comprehensive income		**2**	–	–
Gains on disposal of available-for-sale investments		**–**	73	25
Other income		**17**	–	–
		73	127	53
Finance costs				
Net interest on pensions and other post-retirement benefit obligations	25	**(22)**	(65)	(107)
Interest expense on financial liabilities held at amortised cost:				
Bank loans and overdrafts		**(72)**	(87)	(59)
Other borrowings		**(970)**	(1,030)	(927)
Interest expense on financial liabilities held at fair value through profit and loss		**(20)**	–	–
Derivatives		**(43)**	12	(8)
Unwinding of discount on provisions	26	**(74)**	(75)	(73)
Other interest		**–**	(11)	(17)
Less: interest capitalised[2]		**135**	128	109
		(1,066)	(1,128)	(1,082)
Remeasurements – Finance income				
Net gains on financial assets held at fair value through profit and loss		**15**	–	–
		15	–	–
Remeasurements – Finance costs				
Net losses on financial liabilities held at fair value through profit and loss		**(51)**	–	–
Net (losses)/gains on derivative financial instruments[3]:				
Derivatives designated as hedges for hedge accounting		**(37)**	49	81
Derivatives not designated as hedges for hedge accounting		**(3)**	70	(139)
		(91)	119	(58)
Total remeasurements – Finance income and costs		**(76)**	119	(58)
Finance income		**88**	127	53
Finance costs		**(1,157)**	(1,009)	(1,140)
Net finance costs from continuing operations		**(1,069)**	(882)	(1,087)

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C and note 10).
2. Interest on funding attributable to assets in the course of construction in the current year was capitalised at a rate of 3.9% (2018: 4.1%; 2017: 3.4%). In the UK, capitalised interest qualifies for a current year tax deduction with tax relief claimed of £19 million (2018: £20 million; 2017: £18 million). In the US, capitalised interest is added to the cost of plant and qualifies for tax depreciation allowances.
3. Includes a net foreign exchange gain on financing activities of £264 million (2018: £314 million loss; 2017: £264 million loss) offset by foreign exchange losses and gains on derivative financial instruments measured at fair value.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

7. Tax

Tax is payable in the territories where we operate, mainly the UK and the US. This note gives further details of the total tax charge and tax liabilities, including current and deferred tax. The current tax charge is the tax payable on this year's taxable profits. Deferred tax is an accounting adjustment to provide for tax that is expected to arise in the future due to differences in the accounting and tax bases.

The tax charge for the period is recognised in the income statement, the statement of comprehensive income or directly in equity, according to the accounting treatment of the related transaction. The tax charge comprises both current and deferred tax.

Current tax assets and liabilities are measured at the amounts expected to be recovered from or paid to the tax authorities. The tax rates and tax laws used to compute the amounts are those that have been enacted or substantively enacted by the reporting date.

The Group operates internationally in territories with different and complex tax codes. Management exercises judgement in relation to the level of provision required for uncertain tax outcomes. There are a number of tax positions not yet agreed with the tax authorities where different interpretations of legislation could lead to a range of outcomes. Judgements are made for each position having regard to particular circumstances and advice obtained.

Deferred tax is provided for using the balance sheet liability method, and is recognised on temporary differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases.

Deferred tax liabilities are generally recognised on all taxable temporary differences, and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. However, deferred tax assets and liabilities are not recognised if the temporary differences arise from the initial recognition of goodwill or from the initial recognition of other assets and liabilities in a transaction (other than a business combination) that affects neither the accounting nor the taxable profit or loss.

Deferred tax liabilities are recognised on taxable temporary differences arising on investments in subsidiaries and joint arrangements except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on the tax rates and tax laws that have been enacted or substantively enacted by the reporting date.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the deferred tax asset to be recovered. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when they relate to income taxes levied by the same tax authority and the Company and its subsidiaries intend to settle their current tax assets and liabilities on a net basis.

Tax charged/(credited) to the consolidated income statement – continuing operations

	2019 £m	2018[1] £m	2017 £m
Tax before exceptional items and remeasurements	**488**	584	666
Exceptional tax on items not included in profit before tax (see note 5)	**–**	(1,510)	(94)
Tax on other exceptional items and remeasurements	**(149)**	37	(198)
Tax on total exceptional items and remeasurements	**(149)**	(1,473)	(292)
Total tax charge/(credit) from continuing operations	**339**	(889)	374

Tax as a percentage of profit before tax

	2019 %	2018[1] %	2017 %
Before exceptional items and remeasurements – continuing operations	**19.6**	23.4	23.7
After exceptional items and remeasurements – continuing operations	**18.4**	(33.4)	17.1

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C and note 10).

7. Tax continued

The tax charge for the year can be analysed as follows:

	2019 £m	2018[1] £m	2017 £m
Current tax:			
UK corporation tax at 19% (2018: 19%; 2017: 20%)	**132**	200	225
UK corporation tax adjustment in respect of prior years	**(12)**	(18)	(47)
	120	182	178
Overseas corporation tax	**8**	15	–
Overseas corporation tax adjustment in respect of prior years	**(40)**	(4)	1
	(32)	11	1
Total current tax from continuing operations	**88**	193	179
Deferred tax:			
UK deferred tax	**27**	65	(9)
UK deferred tax adjustment in respect of prior years	**2**	(2)	(18)
	29	63	(27)
Overseas deferred tax	**208**	(1,155)	224
Overseas deferred tax adjustment in respect of prior years	**14**	10	(2)
	222	(1,145)	222
Total deferred tax from continuing operations	**251**	(1,082)	195
Total tax charge/(credit) from continuing operations	**339**	(889)	374

Tax charged/(credited) to the consolidated statement of other comprehensive income and equity

	2019 £m	2018[1] £m	2017 £m
Current tax:			
Available-for-sale investments	**–**	(11)	6
Investments at fair value through other comprehensive income	**–**	–	–
Cash flow hedges, Cost of hedging and Own credit reserve	**3**	–	–
Share-based payments	**–**	(3)	(4)
Deferred tax:			
Available-for-sale investments	**–**	(18)	8
Investments at fair value through other comprehensive income	**–**	–	–
Cash flow hedges, Cost of hedging and Own credit reserve	**(12)**	(4)	20
Remeasurements of gains of pension assets and post-retirement benefit obligations[2]	**12**	530	277
Share-based payments	**–**	1	1
	3	495	308
Total tax recognised in the statements of comprehensive income from continuing operations	**3**	497	311
Total tax recognised in the statements of comprehensive income from discontinued operations	**–**	–	10
Total tax relating to share-based payments recognised directly in equity from continuing operations	**–**	(2)	(3)
Total tax relating to share-based payments recognised directly in equity from discontinued operations	**–**	–	–
	3	495	318

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C and note 10).
2. Remeasurements of gains on pension assets and post-retirement benefit obligations for the year ended 31 March 2018 includes a deferred tax charge of £281 million arising on the reduction in the US corporation tax rate.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

7. Tax continued

The tax charge for the year after exceptional items and remeasurements, for the continuing business, is lower (2018: lower tax charge; 2017: lower tax charge) than the standard rate of corporation tax in the UK of 19% (2018: 19%; 2017: 20%):

	Before exceptional items and remeasurements 2019 £m	**After exceptional items and remeasurements 2019 £m**	Before exceptional items and remeasurements 2018 £m	After exceptional items and remeasurements 2018 £m	Before exceptional items and remeasurements 2017 £m	After exceptional items and remeasurements 2017 £m
Profit before tax from continuing operations						
Before exceptional items and remeasurements	**2,489**	**2,489**	2,500	2,500	2,807	2,807
Exceptional items and remeasurements	**–**	**(648)**	–	160	–	(623)
Profit before tax from continuing operations	**2,489**	**1,841**	2,500	2,660	2,807	2,184
Profit before tax from continuing operations multiplied by UK corporation tax rate of 19% (2018: 19%; 2017: 20%)	**473**	**350**	475	506	561	437
Effect of:						
Adjustments in respect of prior years[1]	**(36)**	**(36)**	(22)	(14)	(67)	(67)
Expenses not deductible for tax purposes[2]	**22**	**28**	20	21	35	442
Non-taxable income[2,3]	**(36)**	**(36)**	(16)	(26)	(24)	(425)
Adjustment in respect of foreign tax rates	**78**	**56**	153	157	180	104
Deferred tax impact of change in UK tax rate	**(3)**	**(3)**	(7)	(7)	–	(94)
Deferred tax impact of change in US tax rate due to Tax Reform	**–**	**–**	–	(1,510)	–	–
Other[4]	**(10)**	**(20)**	(19)	(16)	(19)	(23)
Total tax charge/(credit) from continuing operations	**488**	**339**	584	(889)	666	374

	%	**%**	%	%	%	%
Effective tax rate – continuing operations	**19.6**	**18.4**	23.4	(33.4)	23.7	17.1

1. Prior year adjustment is primarily due to agreement of prior period tax returns.
2. For the year ended 31 March 2017, the adjustments after exceptional items and remeasurements primarily represent the impact of the Group's net investment hedging following significant US dollar currency fluctuations.
3. Includes gains on chargeable disposals which are offset by previously unrecognised capital losses.
4. Other primarily comprises an adjustment in respect of post-tax profits of joint ventures and associates included within profit before tax from continuing operations.

Factors that may affect future tax charges

The main rate of UK corporation tax is reduced to 17% with effect from 1 April 2020. Deferred tax balances have been calculated at this rate.

We will continue to monitor the developments driven by Brexit, the OECD's Base Erosion and Profit Shifting (BEPS) project and European Commission initiatives including fiscal aid investigations. At this time we do not expect this to have any material impact on our future tax charges.

7. Tax continued

Tax included within the statement of financial position

The following are the major deferred tax assets and liabilities recognised, and the movements thereon, during the current and prior reporting periods:

	Accelerated tax depreciation £m	Share-based payments £m	Pensions and other post-retirement benefits £m	Financial instruments £m	Other net temporary differences[1] £m	Total £m
Deferred tax liabilities/(assets)						
At 1 April 2017	7,074	(12)	(747)	9	(1,845)	4,479
Exchange adjustments and other[2]	(559)	–	69	1	221	(268)
(Credited)/charged to income statement	(1,641)	2	(55)	12	598	(1,084)
Charged/(credited) to other comprehensive income and equity	–	1	530	(1)	(21)	509
At 31 March 2018 (as previously reported)	4,874	(9)	(203)	21	(1,047)	3,636
Impact of transition to IFRS 9 and IFRS 15	19	–	–	(5)	(93)	(79)
At 1 April 2018 (as restated)	4,893	(9)	(203)	16	(1,140)	3,557
Exchange adjustments and other[2]	275	–	(31)	(3)	(76)	165
(Credited)/charged to income statement	309	–	52	6	(124)	243
Charged/(credited) to other comprehensive income and equity	–	–	12	(12)	–	–
At 31 March 2019	**5,477**	**(9)**	**(170)**	**7**	**(1,340)**	**3,965**

1. The deferred tax asset of £1,340 million as at 31 March 2019 (2018: £1,047 million) in respect of other net temporary differences primarily relates to US net operating losses of £423 million (2018: £390 million) and environmental provisions of £409 million (2018: £378 million).
2. Exchange adjustments and other comprises foreign exchange arising on translation of the US dollar deferred tax balances. In the prior period it also included reclassification of £43 million relating to offset of the opening deferred tax balance on US net operating losses against US current tax liabilities.

Deferred tax assets and liabilities are only offset where there is a legally enforceable right of offset and there is an intention to settle the balances net. The deferred tax balances (after offset) for statement of financial position purposes consist solely of deferred tax liabilities of £3,965 million (2018: £3,636 million). This balance is after offset of a deferred tax asset of £423 million (2018: £390 million) which has been recognised in respect of net operating losses. In the prior period, the deferred tax credited to the income statement of £1,084 million was after offset of a £293 million deferred tax charge in respect of net operating losses.

Deferred tax assets in respect of capital losses, trading losses and non-trade deficits have not been recognised as their future recovery is uncertain or not currently anticipated. The deferred tax assets not recognised are as follows:

	2019 £m	2018 £m
Capital losses	**1,470**	510
Non-trade deficits	**4**	4
Trading losses	**5**	4

The capital losses arose in the UK on disposal of certain businesses or assets, some of which were agreed with HMRC in the current period. They are available to carry forward indefinitely but can only be offset against future capital gains. The UK non-trade deficits arose prior to 1 April 2017 and therefore can only be offset against future non-trade profits.

At 31 March 2019 and 31 March 2018, there were no recognised deferred tax liabilities for taxes that would be payable on the unremitted earnings of the Group's subsidiaries or its associates as there are no significant corporation tax consequences of the Group's UK, US or overseas subsidiaries or associates paying dividends to their parent companies. There are also no significant income tax consequences for the Group from the payment of dividends by the Group to its shareholders.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

8. Earnings per share (EPS)

EPS is the amount of post-tax profit attributable to each ordinary share. Basic EPS is calculated on profit for the year attributable to equity shareholders divided by the weighted average number of shares in issue during the year. Diluted EPS shows what the impact would be if all outstanding share options were exercised and treated as ordinary shares at year end. The weighted average number of shares is increased by additional shares issued as scrip dividends and reduced by shares repurchased by the Company during the year. The earnings per share calculations are based on profit after tax attributable to equity shareholders of the Company which excludes non-controlling interests.

Adjusted earnings and EPS, which exclude exceptional items and remeasurements, are provided to reflect the business performance sub-totals used by the Company. We have included reconciliations from this additional EPS measure to earnings for both basic and diluted EPS to provide additional detail for these items. For further details of exceptional items and remeasurements, see note 5.

Following the sale of the UK Gas Distribution business on 31 March 2017, National Grid plc returned £3,171 million of proceeds to shareholders through a special dividend, paid on 2 June 2017. In order to maintain the comparability of the Company's share price before and after the special dividend, this was preceded by a share consolidation undertaken on 22 May 2017, replacing every 12 existing ordinary shares with 11 new ordinary shares. The weighted average number of ordinary shares outstanding for the year ended 31 March 2018 includes the effect of both the share consolidation and the special dividend from the date that the special dividend was paid. The associated share buyback programme which began on 2 June 2017 completed in March 2018. Purchased shares are held as treasury shares.

(a) Basic EPS

	Earnings 2019 £m	**EPS 2019 pence**	Earnings 2018[1] £m	EPS 2018[1] pence	Earnings 2017 £m	EPS 2017 pence
Adjusted earnings from continuing operations	**1,998**	**59.0**	1,915	55.3	2,141	56.9
Exceptional items and remeasurements after tax from continuing operations	**(499)**	**(14.7)**	1,633	47.2	(331)	(8.8)
Earnings from continuing operations	**1,499**	**44.3**	3,548	102.5	1,810	48.1
Adjusted earnings from discontinued operations	**57**	**1.7**	145	4.2	607	16.1
Exceptional items and remeasurements after tax from discontinued operations	**(45)**	**(1.4)**	(143)	(4.1)	5,378	142.9
Earnings from discontinued operations	**12**	**0.3**	2	0.1	5,985	159.0
Total adjusted earnings	**2,055**	**60.7**	2,060	59.5	2,748	73.0
Total exceptional items and remeasurements after tax (including discontinued operations)	**(544)**	**(16.1)**	1,490	43.1	5,047	134.1
Total earnings	**1,511**	**44.6**	3,550	102.6	7,795	207.1

	2019 millions	2018 millions	2017 millions
Weighted average number of ordinary shares – basic	**3,386**	3,461	3,763

(b) Diluted EPS

	Earnings 2019 £m	**EPS 2019 pence**	Earnings 2018[1] £m	EPS 2018[1] pence	Earnings 2017 £m	EPS 2017 pence
Adjusted earnings from continuing operations	**1,998**	**58.8**	1,915	55.1	2,141	56.7
Exceptional items and remeasurements after tax from continuing operations	**(499)**	**(14.7)**	1,633	47.0	(331)	(8.8)
Earnings from continuing operations	**1,499**	**44.1**	3,548	102.1	1,810	47.9
Adjusted earnings from discontinued operations	**57**	**1.7**	145	4.2	607	16.0
Exceptional items and remeasurements after tax from discontinued operations	**(45)**	**(1.4)**	(143)	(4.2)	5,378	142.3
Earnings from discontinued operations	**12**	**0.3**	2	0.0	5,985	158.3
Total adjusted earnings	**2,055**	**60.5**	2,060	59.3	2,748	72.7
Total exceptional items and remeasurements after tax (including discontinued operations)	**(544)**	**(16.1)**	1,490	42.8	5,047	133.5
Total earnings	**1,511**	**44.4**	3,550	102.1	7,795	206.2

	2019 millions	2018 millions	2017 millions
Weighted average number of ordinary shares – diluted	**3,401**	3,476	3,780

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C and note 10).

8. Earnings per share (EPS) continued

(c) Reconciliation of basic to diluted average number of shares

	2019 millions	2018 millions	2017 millions
Weighted average number of ordinary shares – basic	**3,386**	3,461	3,763
Effect of dilutive potential ordinary shares – employee share plans	**15**	15	17
Weighted average number of ordinary shares – diluted	**3,401**	3,476	3,780

9. Dividends

Interim dividends are recognised when they become payable to the Company's shareholders. Final dividends are recognised when they are approved by shareholders.

	2019			2018			2017		
	Pence per share	**Cash dividend paid £m**	**Scrip dividend £m**	Pence per share	Cash dividend paid £m	Scrip dividend £m	Pence per share	Cash dividend paid £m	Scrip dividend £m
Interim dividend in respect of the current year	**16.08**	**450**	**94**	15.49	346	176	15.17	540	32
Special dividend	**–**	**–**	**–**	84.375	3,171	–	–	–	–
Final dividend in respect of the prior year	**30.44**	**710**	**319**	29.10	970	33	28.34	923	151
	46.52	**1,160**	**413**	128.965	4,487	209	43.51	1,463	183

The Directors are proposing a final dividend for the year ended 31 March 2019 of 31.26p per share that will absorb approximately £1,066 million of shareholders' equity (assuming all amounts are settled in cash). It will be paid on 14 August 2019 to shareholders who are on the register of members at 31 May 2019 (subject to shareholders' approval at the AGM). A scrip dividend will be offered as an alternative.

Following completion of the sale of the majority interest in UK Gas Distribution, the Company paid a special dividend on 2 June 2017 of 84.375p per existing ordinary share ($5.4224 per existing American Depositary Share). This returned £3,171 million to shareholders. No scrip dividend was offered as an alternative.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

10. Discontinued operations and assets held for sale

The results and cash flows of significant assets or businesses sold during the year are shown separately from our continuing operations. Assets and businesses are classified as held for sale when their carrying amounts are recovered through sale rather than through continuing use. They only meet the held for sale condition when the assets are ready for immediate sale in their present condition, management is committed to the sale and it is highly probable that the sale will complete within one year. Depreciation ceases on assets and businesses when they are classified as held for sale and the assets and businesses are impaired if the proceeds less sale costs fall short of the carrying value.

Following the decision that we will exercise our put option to sell the 39% equity interest we hold in Quadgas, and on the basis that we intend to dispose of our stake by 30 June 2019, we have met the criteria to classify our interests in Quadgas as a disposal group held for sale. The disposal group comprises our equity interests in Quadgas, the shareholder loan to Quadgas and the derivatives arising from the put/call agreements (described further below). The Group has classified the results of the disposal group as a discontinued operation for the year, and therefore they are presented in the income statement as a discontinued operation separately from the results of the rest of our business, in the same way as the results of the UK Gas Distribution business were disclosed following the sale of a 61% controlling stake in the business on 31 March 2017.

On 31 March 2017, the Group sold 61% of its UK Gas Distribution business to Quadgas BidCo Limited (the Consortium) and retained 39% of the business. At the same time, we and the Consortium also entered into a Further Acquisition Agreement (FAA), a put/call arrangement, to sell a further 14% of our investment in the business between 1 March 2019 and 30 June 2019 (our put, having given at least six months' notice) or between 1 July 2019 to 31 October 2019 (the Consortium's call, having given six months' notice).

On 1 May 2018, we announced that we had entered into a Remaining Acquisition Agreement (RAA) with the Consortium for the remaining 25% stake in the business under an agreement similar to the FAA. The pricing under the RAA is less favourable to the Group than the FAA. However, in all other material aspects, the RAA is similar to the FAA, in particular regarding the windows for the notice to be given and exercise of the put and call options. This resulted in the recognition of a net derivative financial asset with a fair value of £110 million (2018: £110 million) relating to the FAA. The fair value of this derivative was initially determined by comparing the pricing mechanism within the FAA against that of the agreement concerning our remaining 25% interest. The £110 million gain as at 31 March 2018 reflected the pricing differential between the two contracts.

An impairment review of the Group's interests in Quadgas (comprising the FAA derivative, a 39% equity interest and £0.4 billion in shareholder loans) was undertaken, comparing the aggregated carrying value of these interests against the future dividend income and proceeds we would expect to receive under the FAA and RAA. At 31 March 2018, this resulted in a charge of £213 million, recorded as an impairment against the carrying value of the equity, largely offsetting pension accounting gains, and the recognition of the FAA derivative asset.

We have decided to exercise the options over our remaining 39% interest in Quadgas and the sale is expected to complete at the end of June 2019, subject to customary regulatory approvals.

The aggregate carrying value of our investment in Quadgas at 31 March 2019 was £2.0 billion (2018: £2.1 billion), determined with reference to the future proceeds expected to be received under the FAA and RAA. This comprises the carrying value of the Group's equity interest in Quadgas of £1.5 billion (2018: £1.6 billion), the shareholder loan to Quadgas of £0.4 billion (2018: £0.4 billion) and the derivatives described above.

Assets held for sale

Under IFRS, the reclassification of assets (and any associated liabilities) as 'held for sale' can only be triggered once the assets are available for sale in their present condition and the sale is 'highly probable'. The highly probable criterion is met when the sale is expected to be completed within a year. We have therefore classified our interests in Quadgas as 'held for sale' with effect from 30 June 2018, since we expect to exit our investment by 30 June 2019. At 31 March 2018, we had no such expectation of sale completion within a year.

The aggregate carrying value of the assets and liabilities we will sell amount to £2.0 billion (2018: £2.1 billion), reflecting the total proceeds that remain to be received. No discounting has been applied on the basis that the period to exercise is now less than a year. The value allocated to each element of the Quadgas disposal group at 31 March 2019 is as follows:

- the shareholder loan receivable is valued at par of £0.4 billion;
- the RAA derivative[1] is valued at £nil;
- the FAA derivative asset[1] is valued at £110 million; and
- the residual balance of £1.5 billion has been allocated to the investment in associate.

Treatment as a discontinued operation

We consider that the exercise of our put options is the final stage of the plan to dispose of our interest in the UK Gas Distribution business first announced in 2015, and we have accordingly treated the results and cash flows arising from Quadgas as a discontinued operation in the current year on the basis that the sale forms part of a 'single coordinated plan' to dispose of UK Gas Distribution. As a consequence, we have classified the various elements of income, expense and cash flows within discontinued operations as set out below, with comparatives also re-presented accordingly.

Also included within discontinued operations are the results of the UK Gas Distribution business for the year ended 31 March 2017, following the disposal of our 61% equity interest in the UK Gas Distribution business described above. This principally comprised the Group's equity and debt interests in National Grid Gas Distribution Limited together with certain other assets (principally property and a 45% interest in Xoserve Limited). The business represented a reportable segment and a separate major line of business and accordingly was presented as a discontinued operation in the consolidated income statement, consolidated statement of comprehensive income and the consolidated cash flow statement in 2017. Further details are included in the Annual Report and Accounts 2016/17. Within the Annual Report and Accounts 2017/18, both the income statement and the cash flow statement for the year ended 31 March 2018 included amounts relating to the transaction within discontinued operations, primarily relating to the completion accounts settlement in November 2017, a cash outflow from operating activities of £207 million related to the utilisation of provisions (mainly relating to payments of professional fees in respect of the disposal of the UK Gas Distribution business), and net cash flows used in financing activities of £231 million for the settlement of RPI swaps (relating to the final stages of the Group-wide liability management programme executed as part of the sale process).

1. The RAA and FAA are both level 3 financial instruments. No sensitivity analysis is provided in respect of the FAA and RAA derivatives. The price at which we will exit our interest in Quadgas is fixed and accordingly reflected in the aggregate carrying value of the disposal group. Any change in the fair value of these derivatives at 31 March would have been offset by equal and opposite adjustments to the carrying value of our equity interest, with nil net impact on profit and loss for the year. The notional value of the FAA was £739 million (2018: £739 million) and the notional value of the RAA was £1,087 million.

10. Discontinued operations and assets held for sale continued

Summary income statement – discontinued operations

The summary income statement for discontinued operations is as follows:

	2019 £m	2018[1] £m	2017 £m
Revenue	–	–	1,887
Operating costs[2]	(1)	(41)	(993)
Operating (loss)/profit	(1)	(41)	894
Net finance income/(costs)	23	137	(152)
Share of post-tax results of joint ventures and associates[3]	(5)	(89)	–
Profit before tax from discontinued operations	17	7	742
Tax from discontinued operations	(5)	(5)	(79)
Profit after tax from discontinued operations	12	2	663
Gain on disposal of UK Gas Distribution after tax[4]	–	–	5,321
Total profit after tax from discontinued operations[5]	12	2	5,984

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C).
2. Operating costs of £41 million for the year ended 31 March 2018 related to amounts in respect of the disposal of the UK Gas Distribution business, primarily relating to the completion accounts settlement in November 2017. The remainder of the balances relate to the disposal group and have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period.
3. For the year ended 31 March 2019, this is the net of £43 million impairment charge against investment in Quadgas (see note 16) and £38 million share of Quadgas post-tax profits recognised prior to classification as held for sale.
4. The total gain on the disposal after tax of £5,321 million was comprised of total consideration of £7,494 million before transaction costs of £1,837 million and a tax credit of £312 million compared to net assets on disposal of £648 million.
5. Of the total profit after tax for the year ended 31 March 2019 from discontinued operations, the £43 million impairment charge against the investment in Quadgas, net operating costs of £1 million and the tax thereon are classified as exceptional items.

Statement of comprehensive income – discontinued operations

The summary statement of comprehensive income for discontinued operations is as follows:

	Notes	2019 £m	2018[1] £m	2017 £m
Profit after tax from discontinued operations		12	2	5,984
Other comprehensive income/(loss)				
Items that will never be reclassified to profit or loss:				
Remeasurement losses of pension assets and post-retirement benefit obligations	25	–	–	(75)
Share of other comprehensive income of associate, net of tax		36	142	–
Tax on items that will never be reclassified to profit or loss		–	–	13
Total items from discontinued operations that will never be reclassified to profit or loss		36	142	(62)
Items that may be reclassified subsequently to profit or loss:				
Net losses in respect of cash flow hedges		–	–	(106)
Transferred to profit or loss in respect of cash flow hedges		–	–	233
Share of other comprehensive income of associate, net of tax		–	5	–
Tax on items that may be reclassified subsequently to profit or loss		–	–	(23)
Total items from discontinued operations that may be reclassified subsequently to profit or loss		–	5	104
Other comprehensive income for the year, net of tax from discontinued operations		36	147	42
Total comprehensive income for the year from discontinued operations		48	149	6,026

1. Comparatives for 2018 only have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C).

Once the assets are treated as 'held for sale', equity accounting ceases for our investment in our associate. We therefore ceased to record our share of profits and share of gains/losses recorded within the consolidated statement of other comprehensive income from 30 June 2018.

Summary cash flow statement – discontinued operations

Cash outflow from operating activities of £71 million (2018: £207 million) primarily related to the payments to Affordable Warmth and professional fees in respect of the disposal of the UK Gas Distribution business. In 2017, the amount related to outflows of cash by the UK Gas Distribution business itself.

Cash inflows from investing activities of £156 million (2018: £171 million) was comprised of dividends received and interest received on the shareholder loan. In 2017, this represented cash outflows from investments made by UK Gas Distribution.

There were no cash flows for financing activities in the year. In 2018, net cash flows used in financing activities were £231 million for the settlement of RPI swaps relating to the final stages of the Group-wide liability management programme executed as part of sale process. In 2017, amounts related to the liability management programme, comprising £4.8 billion of debt issued and term debt raised, offset by £3.2 billion in respect of bond buybacks.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

11. Goodwill

Goodwill represents the excess of what we paid to acquire businesses over the fair value of their net assets at the acquisition date. We assess whether goodwill is recoverable each year by performing an impairment review.

Goodwill is recognised as an asset and is not amortised, but is tested for impairment annually or more frequently if events or changes in circumstances indicate a potential impairment. Any impairment is recognised immediately in the income statement and is not subsequently reversed.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing exchange rate.

Goodwill is allocated to cash-generating units and this allocation is made to those cash-generating units that are expected to benefit from the business combination in which the goodwill arose.

Impairment is recognised where there is a difference between the carrying value of the cash-generating unit and the estimated recoverable amount of the cash-generating unit to which that goodwill has been allocated. Any impairment loss is first allocated to the carrying value of the goodwill and then to the other assets within the cash-generating unit. Recoverable amount is defined as the higher of fair value less costs to sell and estimated value-in-use at the date the impairment review is undertaken.

Value-in-use represents the present value of expected future cash flows, discounted using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

Impairments are recognised in the income statement and are disclosed separately.

	Total £m
Net book value at 1 April 2017	6,096
Exchange adjustments	(652)
Net book value at 31 March 2018	5,444
Exchange adjustments	425
Net book value at 31 March 2019	**5,869**

The cost of goodwill at 31 March 2019 was £5,885 million (2018: £5,458 million) with an accumulated impairment charge of £16 million (2018: £14 million).

The amounts disclosed above as at 31 March 2019 include balances relating to the following cash-generating units: New York £3,382 million (2018: £3,137 million); Massachusetts £1,264 million (2018: £1,173 million); Rhode Island £470 million (2018: £436 million); and Federal £753 million (2018: £698 million).

Goodwill is reviewed annually for impairment and the recoverability of goodwill has been assessed by comparing the carrying amount of our operations described above (our cash-generating units) with the expected recoverable amount on a value-in-use basis. In each assessment, the value-in-use has been calculated based on five-year plan projections that incorporate our best estimates of future cash flows, customer rates, costs (including changes in commodity prices), future prices and growth. Such projections reflect our current regulatory rate plans taking into account regulatory arrangements to allow for future rate plan filings and recovery of investment. Our plans have proved to be reliable guides in the past and the Directors believe the estimates are appropriate.

The future economic growth rate used to extrapolate projections beyond five years is 2.2% (2018: 2.3%). The growth rate has been determined having regard to data on projected growth in US real gross domestic product (GDP). Based on our business' place in the underlying US economy, it is appropriate for the terminal growth rate to be based upon the overall growth in real GDP and, given the nature of our operations, to extend over a long period of time. Cash flow projections have been discounted to reflect the time value of money, using a post-tax discount rate of 5.3% (2018: 5.3%). The equivalent pre-tax discount rate is 5.3% (2018: 5.3%) as tax is assumed to be a pass-through cost to our customers, recoverable under our rate plans. The discount rate represents the estimated weighted average cost of capital of these operations.

In reaching this conclusion, the Directors have considered the potential future consequences regarding the manner in which Tax Reform will impact the Group and its future cash flows. In our US business, we are subject to federal and state taxes; however, our regulatory arrangements require us to pass this cost back to our customers. The reduction in the corporation tax rate from 35% to 21% will be reflected through lower bills to customers, reducing our revenues (and tax costs) in future periods. For the purposes of the goodwill impairment exercise, we have reflected the lower billing levels through lower revenue forecasts as well as lower tax charges.

Historically, as a result of tax losses arising from claiming accelerated depreciation allowances, we have not paid substantial amounts of tax in the US. Accordingly, for IFRS purposes, we have recognised significant deferred tax liabilities in respect of these accelerated allowances. In accounting terms, Tax Reform triggered the remeasurement of our deferred tax liabilities from 35% to 21% which resulted in the exceptional gain under IFRS for the year ended 31 March 2018 (as disclosed in notes 5 and 7). However, the impact for our US business is that the amounts we have previously received from customers assuming a 35% federal tax rate instead of a 21% federal tax rate must now be returned to customers over a period of up to 50 years. The precise manner and timing over which this occurs remains subject to agreement with our regulators.

Offsetting this change will be the additional income we earn, since the rate base will grow faster. (Our rate base is net of deferred tax liabilities, which, as a result of Tax Reform, will now be smaller.) In overall terms we expect the outcome to be economically neutral.

In assessing the carrying value of goodwill, we have sensitised our forecasts to factor in a reduction in revenues and lower tax costs into our cash flow forecasts, but we have not reflected the impact of additional rate base growth on future earnings. While it is possible that a key assumption in the calculation could change, the Directors believe that no reasonably foreseeable change would result in an impairment of goodwill, in view of the long-term nature of the key assumptions and the margin by which the estimated value-in-use exceeds the carrying amount.

12. Other intangible assets

Other intangible assets include software which is written down (amortised) over the length of period we expect to receive a benefit from the asset.

Identifiable intangible assets are recorded at cost less accumulated amortisation and any provision for impairment. Other intangible assets are tested for impairment only if there is an indication that the carrying value of the assets may have been impaired. Impairments of assets are calculated as the difference between the carrying value of the asset and the recoverable amount, if lower. Where such an asset does not generate cash flows that are independent from other assets, the recoverable amount of the cash-generating unit to which that asset belongs is estimated. Impairments are recognised in the income statement and are disclosed separately. Any assets which suffered impairment in a previous period are reviewed for possible reversal of the impairment at each reporting date.

Internally generated intangible assets, such as software, are recognised only if: i) an asset is created that can be identified; ii) it is probable that the asset created will generate future economic benefits; and iii) the development cost of the asset can be measured reliably. Where no internally generated intangible asset can be recognised, development expenditure is recorded as an expense in the period in which it is incurred.

Other intangible assets are amortised on a straight-line basis over their estimated useful economic lives. Amortisation periods for categories of intangible assets are:

	Years
Software	3 to 10

	Software £m
Cost at 1 April 2017	1,732
Exchange adjustments	(98)
Additions	173
Disposals	(18)
Reclassifications[1]	8
Cost at 31 March 2018	1,797
Exchange adjustments	70
Additions	306
Disposals	(15)
Reclassifications[1]	10
Cost at 31 March 2019	2,168
Accumulated amortisation at 1 April 2017	(809)
Exchange adjustments	43
Amortisation charge for the year	(138)
Accumulated amortisation of disposals	6
Accumulated amortisation at 31 March 2018	(898)
Exchange adjustments	(26)
Amortisation charge for the year	(175)
Accumulated amortisation of disposals	15
Accumulated amortisation at 31 March 2019	(1,084)
Net book value at 31 March 2019[2]	**1,084**
Net book value at 31 March 2018	899

1. Reclassifications includes amounts transferred (to)/from property, plant and equipment (see note 13).
2. Included in software is £116 million (2018: £160 million) relating to the US Enterprise Resource Planning system, which still has a remaining amortisation period of four years.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

13. Property, plant and equipment

The following note shows the physical assets controlled by us. The cost of these assets primarily represents the amount initially paid for them. This includes both their purchase price and the construction and other costs associated with getting them ready for operation. A depreciation expense is charged to the income statement to reflect annual wear and tear and the reduced value of the asset over time. Depreciation is calculated by estimating the number of years we expect the asset to be used (useful economic life) and charging the cost of the asset to the income statement equally over this period.

We operate an energy networks business and therefore have a significant physical asset base. We continue to invest in our networks to maintain reliability, create new customer connections and ensure our networks are flexible and resilient. Our business plan envisages these additional investments will be funded through a mixture of cash generated from operations and the issue of new debt.

Property, plant and equipment is recorded at cost, less accumulated depreciation and any impairment losses.

Cost includes the purchase price of the asset; any payroll and finance costs incurred which are directly attributable to the construction of property, plant and equipment; and the cost of any associated asset retirement obligations.

Property, plant and equipment includes assets in which the Group's interest comprises legally protected statutory or contractual rights of use. Additions represent the purchase or construction of new assets, including capital expenditure for safety and environmental assets, and extensions to, enhancements to, or replacement of existing assets. All costs associated with projects or activities which have not been fully commissioned at the period end are classified within assets in the course of construction.

No depreciation is provided on freehold land or assets in the course of construction.

Other items of property, plant and equipment are depreciated, on a straight-line basis, at rates estimated to write off their book values over their estimated useful economic lives. In assessing estimated useful economic lives, consideration is given to any contractual arrangements and operational requirements relating to particular assets. The assessments of estimated useful economic lives and residual values of assets are performed annually. Unless otherwise determined by operational requirements, the depreciation periods for the principal categories of property, plant and equipment are, in general, as shown in the table below:

	Years
Freehold and leasehold buildings	up to 103
Plant and machinery:	
Electricity transmission plant and wires	10 to 100
Electricity distribution plant	29 to 85
Electricity generation plant	15 to 93
Interconnector plant and other	5 to 65
Gas plant – mains, services and regulating equipment	10 to 95
Gas plant – storage	5 to 65
Gas plant – meters	7 to 62
Motor vehicles and office equipment	up to 30

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within operating profit in the income statement.

Items within property, plant and equipment are tested for impairment only if there is some indication that the carrying value of the assets may have been impaired.

Impairments of assets are calculated as the difference between the carrying value of the asset and the recoverable amount, if lower. Where such an asset does not generate cash flows that are independent from other assets, the recoverable amount of the cash-generating unit to which that asset belongs is estimated.

Impairments are recognised in the income statement and if immaterial are included within the depreciation charge for the year.

Any assets which suffered impairment in a previous period are reviewed for possible reversal of the impairment at each reporting date.

13. Property, plant and equipment continued

	Land and buildings £m	Plant and machinery £m	Assets in the course of construction[1] £m	Motor vehicles and office equipment £m	Total £m
Cost at 1 April 2017	2,979	49,231	3,951	834	56,995
Exchange adjustments	(169)	(2,862)	(89)	(67)	(3,187)
Additions	38	430	3,358	75	3,901
Disposals[2]	(16)	(216)	(21)	(34)	(287)
Reclassifications[3]	98	2,791	(2,926)	49	12
Cost at 31 March 2018	2,930	49,374	4,273	857	57,434
Exchange adjustments	114	2,001	70	47	2,232
Additions	34	391	3,533	57	4,015
Disposals[2]	(35)	(357)	(159)	(44)	(595)
Reclassifications[3]	295	2,974	(3,292)	13	(10)
Cost at 31 March 2019	3,338	54,383	4,425	930	63,076
Accumulated depreciation at 1 April 2017	(684)	(15,996)	–	(490)	(17,170)
Exchange adjustments	28	695	–	36	759
Depreciation charge for the year	(28)	(1,276)	–	(88)	(1,392)
Disposals	10	199	–	33	242
Reclassifications[3]	–	(20)	–	–	(20)
Accumulated depreciation at 31 March 2018	(674)	(16,398)	–	(509)	(17,581)
Exchange adjustments	(19)	(501)	–	(25)	(545)
Depreciation charge for the year	(93)	(1,229)	(150)	(101)	(1,573)
Disposals	7	335	150	44	536
Reclassifications[3]	1	(1)	–	–	–
Accumulated depreciation at 31 March 2019	(778)	(17,794)	–	(591)	(19,163)
Net book value at 31 March 2019	**2,560**	**36,589**	**4,425**	**339**	**43,913**
Net book value at 31 March 2018	2,256	32,976	4,273	348	39,853

1. Included within disposals are UK nuclear connections development costs of £150 million (before £13 million of termination income) which were written off (2018: £nil). See note 5 for further details.
2. In 2018, this included the reversal of assets with cost of £51 million and accumulated depreciation of £51 million disposed of in previous years that remain in use in the Group. It also included £334 million of adjustments from accumulated depreciation to cost for historical disposals relating to assets acquired as part of the KeySpan acquisition in 2008 which were disposed of in subsequent periods. Both of these adjustments have a nil net book value impact.
3. Represents amounts transferred between categories, (to)/from other intangible assets (see note 12), reclassifications from inventories and reclassifications between cost and accumulated depreciation.

	2019 £m	2018 £m
Information in relation to property, plant and equipment		
Capitalised interest included within cost	**1,995**	1,861
Net book value of assets held under finance leases (all relating to motor vehicles and office equipment)	**241**	253
Additions to assets held under finance leases (all relating to motor vehicles and office equipment)	**38**	58
Contributions to cost of property, plant and equipment included within:		
Trade and other payables	**87**	85
Non-current liabilities	**372**	844
Contract liabilities – current	**61**	–
Contract liabilities – non-current	**933**	–

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

14. Other non-current assets

Other non-current assets include assets that do not fall into any other non-current asset category (such as goodwill or property, plant and equipment) where the benefit to be received from the asset is not due to be received until after 31 March 2020.

	2019 £m	2018 £m
Other receivables	28	36
Non-current tax assets	56	51
Prepayments and accrued income[1]	180	28
	264	115

1. Includes accrued income in relation to property sales to the St William joint venture.

15. Financial and other investments

The Group holds a range of financial and other investments. These investments include short-term money funds, quoted investments in equities or bonds of other companies, long-term loans to our associates and joint ventures and other loans and receivables. Other loans and receivables typically includes bank deposits with a maturity of greater than three months, and cash balances that cannot be readily used in operations, principally collateral pledged against derivative holdings.

The Group adopted IFRS 9 with effect from 1 April 2018. The comparatives are not required to be restated and are accounted for in accordance with IAS 39. Under IFRS 9, the Group has reported four categories of financial investments, and the classification for each investment is dependent on its contractual cash flows and the business model it is held under and recognised on trade date.

Debt instruments that have contractual cash flows that are solely payments of principal and interest, and which are held within a business model whose objective is to collect contractual cash flows, are held at amortised cost. This category includes our long-term loans to joint ventures and associates as well as collateral pledged balances.

Debt investments that have contractual cash flows that are solely payments of principal and interest, and which are held within a business model whose objective is both to collect the contractual cash flows and to sell the debt instruments, are measured at fair value through other comprehensive income. On disposal, any realised gains or losses are recycled to the income statement in investment income (see note 6).

The Group has elected to measure equity instruments at fair value through other comprehensive income as they are shares held as part of a portfolio of financial instruments which back some long-term employee liabilities. They are not held for trading and so recognising gains and losses on these investments in profit and loss would not be representative of performance in the year. On disposal, any realised gains and losses are transferred to retained profits (see note 28).

Other financial investments are subsequently measured at fair value through profit and loss. This primarily comprises our money market funds, insurance company fund investments and corporate venture capital investments held by National Grid Partners.

Financial and other investments are initially recognised on trade date. Subsequent to initial recognition, the fair values of financial assets measured at fair value that are quoted in active markets are based on bid prices. When independent prices are not available, fair values are determined by using valuation techniques that are consistent with techniques commonly used by the relevant market. The techniques use observable market data to the extent available.

2018

For 2018, financial and other investments were £3,593 million reported across three categories. Assets classified as available-for-sale typically represent investments in short-term money funds and quoted investments in equities or bonds of other companies. The second category comprises long-term loans to our associates and joint ventures, and the third category is other loans and receivables, which includes bank deposits, collateral pledged against derivative holdings or other restricted deposit balances.

Financial assets, liabilities and equity instruments are classified according to the substance of the contractual arrangements entered into, and recognised on trade date. Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any other categories. Available-for-sale financial investments are recognised at fair value plus directly related incremental transaction costs, and they are subsequently carried at fair value in the statement of financial position. Changes in the fair value of available-for-sale investments are recognised directly in other comprehensive income, until the investment is disposed of or is determined to be impaired. At this time the cumulative gain or loss previously recognised in equity is included in the income statement for the period. Investment income is recognised using the effective interest method and taken through interest income in the income statement.

Loans and other receivables are initially recognised at fair value plus transaction costs and subsequently held at amortised cost using the effective interest method. Interest income, together with gains and losses when the loans and receivables are derecognised or impaired, is recognised in the income statement.

15. Financial and other investments continued

	2019 £m	2018 £m
Non-current		
Debt investments at fair value through other comprehensive income	343	–
Equity investments at fair value through other comprehensive income	93	–
Investments at fair value through profit and loss	62	–
Available-for-sale investments	–	417
Loans to joint ventures and associates[1]	169	482
	667	899
Current		
Investments at fair value through profit and loss	1,311	–
Available-for-sale investments	–	2,304
Other loans and receivables	670	390
	1,981	2,694
	2,648	3,593
Financial and other investments include the following:		
Investments in short-term money funds[2]	969	1,999
Insurance company fund investments[3]	342	301
Equities[4]	93	84
Bonds[4]	122	145
Cash surrender value of life insurance policies[4]	221	198
Loans to joint ventures and associates	169	482
Corporate venture capital and other	62	–
Restricted balances:		
Collateral[5]	637	335
Other	33	49
	2,648	3,593

1. Comprises a loan to a joint venture. In 2018, £352 million related to a shareholder loan to Quadgas, which has been re-classified to assets held for sale during the period.
2. Includes £6 million (2018: £69 million) held as insurance company fund investments and £22 million (2018: £nil) US non-qualified plan investments, and therefore restricted.
3. Includes restricted amounts of £342 million (2018: £301 million) held as insurance company fund investments.
4. Primarily includes restricted amounts of £436 million (2018: £411 million) relating to US non-qualified plan investments.
5. Refers to collateral placed with counterparties with whom we have entered into a credit support annex to the ISDA (International Swaps and Derivatives Association) Master Agreement.

Fair value through profit and loss, fair value through other comprehensive income and available-for-sale investments are recorded at fair value. The carrying value of current loans and receivables is approximate to their fair values, due to short-dated maturities. The carrying value of the non-current loans to joint ventures and associates approximates their fair values as at 31 March 2019 and 31 March 2018. The exposure to credit risk at the reporting date is the fair value of the financial investments. For further information on our credit risk, refer to note 32(a).

For the purposes of impairment assessment, the investments in bonds are considered to be low risk as they are managed with an investment remit to invest in investment grade securities; life insurance policies are held with regulated insurance companies; and loans to joint ventures are individually assessed based on comparable external credit ratings and a review of forecasts. No balances are more than 30 days past due. All financial assets held at fair value through other comprehensive income or amortised cost are therefore considered to have low credit risk and have a loss allowance equal to 12-month expected credit losses.

In determining the expected credit losses for these assets, some or all of the following information has been considered: credit ratings, the financial position of counterparties, the future prospects of the relevant industries and general economic forecasts.

No fair value through other comprehensive income or amortised cost financial assets have had modified cash flows during the period. There has been no change in the estimation techniques or significant assumptions made during the year in assessing the loss allowance for these financial assets. There were no significant movements in the gross carrying value of financial assets during the year that contribute to changes in the loss allowance. No collateral is held in respect of any of the financial investments in the above table. No balances were written off during the year.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

16. Investments in joint ventures and associates

Investments in joint ventures and associates represent businesses we do not control but over which we exercise joint control or significant influence.

A joint venture is an arrangement established to engage in economic activity, which the Group jointly controls with other parties and has rights to the net assets of the arrangement. An associate is an entity which is neither a subsidiary nor a joint venture, but over which the Group has significant influence.

	2019			2018		
	Associates £m	**Joint ventures £m**	**Total £m**	Associates £m	Joint ventures £m	Total £m
Share of net assets at 1 April	**1,807**	**361**	**2,168**	1,776	307	2,083
Exchange adjustments	**17**	**(6)**	**11**	(19)	7	(12)
Additions	**58**	**85**	**143**	65	64	129
Capitalisation of shareholder loan to Quadgas	**–**	**–**	**–**	69	–	69
Impairment charge against investment in Quadgas	**(43)**	**–**	**(43)**	(213)	–	(213)
Transfer of interest in Quadgas to assets held for sale	**(1,625)**	**–**	**(1,625)**	–	–	–
Share of post-tax results for the year	**67**	**11**	**78**	147	26	173
Share of other comprehensive income of associates, net of tax	**37**	**–**	**37**	147	–	147
Dividends received	**(38)**	**(30)**	**(68)**	(170)	(43)	(213)
Other movements[1]	**11**	**(104)**	**(93)**	5	–	5
Share of net assets at 31 March	**291**	**317**	**608**	1,807	361	2,168

1. Other movements on joint ventures relate to reducing the carrying value of the investment in St William Homes LLP to reflect deferred income we expect to recognise over the next 10 years.

A list of joint ventures and associates including the name and proportion of ownership is provided in note 34. Transactions with and outstanding balances with joint ventures and associates are shown in note 31. Further information on the Group's interest in Quadgas and the subsequent reclassification of the interest to assets held for sale is provided in note 10.

In 2017, the Group first entered into an arrangement with San Francisco-based Sunrun Neptune Investor 2016 LLC, a leading US provider of residential solar energy systems to provide investment capital. In the period to 31 March 2019, the Group invested £6 million (2018: £38 million) alongside Sunrun into a newly incorporated partnership vehicle. The investment is measured at fair value. The fair value gain on this investment of £8 million (2018: £7 million) has been reflected within the share of post-tax results for the year.

The joint ventures and associates have no significant contingent liabilities to which the Group is exposed, and the Group has no significant contingent liabilities in relation to its interests in the joint ventures and associates. The Group has capital commitments of £18 million (2018: £120 million) in relation to joint ventures.

At 31 March 2019, the Group had one material joint venture, being its 50% equity stake in BritNed and one material associate, being its 26.25% investment in Millennium Pipeline Company LLC. The Group's 39% equity stake in Quadgas is held for sale and therefore all disclosures in relation to Quadgas are included in note 10. BritNed is a joint venture with transmission system operator TenneT and operates the subsea electricity link between Great Britain and the Netherlands, commissioned in 2011. BritNed has a reporting period end of 31 December with monthly management reporting information provided to National Grid. Millennium Pipeline Company LLC is an associate that owns a natural gas pipeline from southern New York to the Lower Hudson Valley. Summarised financial information as at 31 March, together with the carrying amount of the investments, is as follows:

	BritNed Development Limited		Millennium Pipeline Company LLC	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Statement of financial position				
Non-current assets	**370**	390	**937**	709
Cash and cash equivalents	**59**	50	**35**	15
All other current assets	**2**	4	**22**	28
Non-current liabilities	**(11)**	(10)	**(326)**	(331)
Current liabilities	**(28)**	(28)	**(84)**	(64)
Equity	**392**	406	**584**	357
Carrying amount of the Group's investment	**196**	203	**153**	94

	BritNed Development Limited		Millennium Pipeline Company LLC	
	2019 £m	2018[1] £m	**2019 £m**	2018 £m
Income statement				
Revenue	**87**	121	**166**	151
Depreciation and amortisation	**(13)**	(13)	**(34)**	(31)
Other costs	**(10)**	(16)	**(35)**	(41)
Operating profit	**64**	92	**97**	79
Income tax expense	**(10)**	(20)	**–**	–
Profit for the year	**54**	72	**97**	79
Group's share of profit	**27**	36	**25**	21

1. Comparatives for revenue and other costs have been re-presented on a net basis in line with current year classification.

17. Derivative financial instruments

Derivatives are financial instruments that derive their value from the price of an underlying item such as interest rates, foreign exchange rates, credit spreads, commodities, equities or other indices. In accordance with Board-approved policies, derivatives are transacted generally to manage exposures to fluctuations in interest rates, foreign exchange rates and commodity prices. Our derivatives balances comprise two broad categories:

- financing derivatives managing our exposure to interest rates and foreign exchange rates. Specifically we use these derivatives to manage our financing portfolio, holdings in foreign operations and contractual operational cash flows; and
- commodity contract derivatives managing our US customers' exposure to price and supply risks. Some forward contracts for the purchase of commodities meet the definition of derivatives and are included here. We also enter into derivative financial instruments linked to commodity prices, including index futures, options and swaps. These are used to manage market price volatility.

The Group adopted IFRS 9 with effect from 1 April 2018. The comparatives are not required to be restated and are accounted for in accordance with IAS 39. There is no impact on derivatives balances as a result of the transition to IFRS 9.

Derivatives are initially recognised at fair value and subsequently remeasured to fair value at each reporting date. Changes in fair values are recorded in the period they arise, in either the income statement or other comprehensive income as required by IFRS 9. Where the gains or losses recorded in the income statement arise from changes in the fair value of derivatives to the extent that hedge accounting is not applied or is not fully effective, these are recorded as remeasurements, detailed in notes 5 and 6. Where the fair value of a derivative is positive it is carried as a derivative asset, and where negative as a derivative liability.

We calculate the fair value of derivative financial instruments by taking the present value of future cash flows, primarily incorporating market observable inputs. The various inputs include foreign exchange spot and forward rates, yield curves of the respective currencies, currency basis spreads between the respective currencies, interest rate and inflation curves, the forward rate curves of underlying commodities, and for those positions that are not fully cash collateralised the credit quality of the counterparties.

Certain clauses embedded in non-derivative financial instruments or other contracts are presented as derivatives because they impact the risk profile of their host contracts and they are deemed to have risks or rewards not closely related to those host contracts.

Further information on how derivatives are valued and used for risk management purposes is presented in note 32.

Information on commodity contracts and other commitments not meeting the definition of derivatives is presented in note 30.

The fair values of derivatives by category are as follows:

	2019			2018		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Financing derivatives	**1,052**	**(1,084)**	**(32)**	1,545	(945)	600
Commodity contract derivatives	**101**	**(99)**	**2**	69	(116)	(47)
Further Acquisition Agreement derivative[1]	**–**	**–**	**–**	110	–	110
	1,153	**(1,183)**	**(30)**	1,724	(1,061)	663

1. The Further Acquisition Agreement derivative is a put/call option over a 14% interest in Quadgas that has been reclassified as held for sale during the period (see note 10).

(a) Financing derivatives

The fair values of financing derivatives by type are as follows:

	2019			2018		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Interest rate swaps	**539**	**(384)**	**155**	678	(457)	221
Cross-currency interest rate swaps	**470**	**(443)**	**27**	687	(207)	480
Foreign exchange forward contracts[1]	**41**	**(41)**	**–**	174	(2)	172
Inflation-linked swaps	**–**	**(214)**	**(214)**	5	(278)	(273)
Equity options	**2**	**(2)**	**–**	1	(1)	–
	1,052	**(1,084)**	**(32)**	1,545	(945)	600

1. Included within the foreign exchange forward contracts balance is £32 million (2018: £67 million) of derivatives in relation to hedging of capital expenditure.

Notes to the consolidated financial statements – analysis of items in the primary statements continued

17. Derivative financial instruments continued

(a) Financing derivatives continued

The maturity profile of financing derivatives is as follows:

	2019			2018		
	Assets £m	Liabilities £m	Total £m	Assets £m	Liabilities £m	Total £m
Current						
Less than 1 year	56	(282)	(226)	375	(325)	50
	56	(282)	(226)	375	(325)	50
Non-current						
In 1 to 2 years	19	(193)	(174)	83	(88)	(5)
In 2 to 3 years	416	(1)	415	25	(27)	(2)
In 3 to 4 years	11	–	11	418	(5)	413
In 4 to 5 years	20	(14)	6	12	–	12
More than 5 years	530	(594)	(64)	632	(500)	132
	996	(802)	194	1,170	(620)	550
	1,052	(1,084)	(32)	1,545	(945)	600

The notional contract[1] amounts of financing derivatives by type are as follows:

	2019 £m	2018 £m
Interest rate swaps	(6,299)	(8,390)
Cross-currency interest rate swaps	(6,700)	(6,925)
Foreign exchange forward contracts	(2,937)	(5,793)
Inflation-linked swaps	(500)	(1,191)
Equity options	(800)	(800)
	(17,236)	(23,099)

1. The notional contract amounts of derivatives indicate the gross nominal value of transactions outstanding at the reporting date.

(b) Commodity contract derivatives

The fair values of commodity contract derivatives by type are as follows:

	2019			2018		
	Assets £m	Liabilities £m	Total £m	Assets £m	Liabilities £m	Total £m
Commodity purchase contracts accounted for as derivative contracts						
Forward purchases of gas	66	(78)	(12)	60	(64)	(4)
Derivative financial instruments linked to commodity prices						
Electricity capacity	–	–	–	1	–	1
Electricity swaps	29	(19)	10	7	(46)	(39)
Electricity options	–	–	–	–	(1)	(1)
Gas swaps	5	(1)	4	1	(4)	(3)
Gas options	1	(1)	–	–	(1)	(1)
	101	(99)	2	69	(116)	(47)

17. Derivative financial instruments continued

(b) Commodity contract derivatives continued

The maturity profile of commodity contract derivatives is as follows:

	2019			2018		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Current						
Less than one year	**52**	**(68)**	**(16)**	30	(76)	(46)
	52	**(68)**	**(16)**	30	(76)	(46)
Non-current						
In 1 to 2 years	**14**	**(9)**	**5**	6	(17)	(11)
In 2 to 3 years	**9**	**(8)**	**1**	6	(11)	(5)
In 3 to 4 years	**6**	**(4)**	**2**	6	(3)	3
In 4 to 5 years	**6**	**(4)**	**2**	5	(2)	3
More than 5 years	**14**	**(6)**	**8**	16	(7)	9
	49	**(31)**	**18**	39	(40)	(1)
	101	**(99)**	**2**	69	(116)	(47)

The notional quantities of commodity contract derivatives by type are as follows:

	2019	2018
Forward purchases of gas[1]	**52m Dth**	54m Dth
Electricity swaps	**12,848 GWh**	12,839 GWh
Electricity options	**10,444 GWh**	13,897 GWh
Electricity capacity	**–**	0.6 GWm
Gas swaps	**87m Dth**	100m Dth
Gas options	**34m Dth**	7m Dth

1. Forward gas purchases have terms up to two years. The contractual obligations under these contracts are £108 million (2018: £96 million).

18. Inventories and current intangible assets

Inventories represent assets that we intend to use in order to generate revenue in the short term, either by selling the asset itself (for example, fuel stocks) or by using it to fulfil a service to a customer or to maintain our network (consumables).

Inventories are stated at the lower of weighted average cost and net realisable value.

Where applicable, cost comprises direct materials and direct labour costs as well as those overheads that have been incurred in bringing the inventories to their present location and condition.

Emission allowances, principally relating to the emissions of carbon dioxide in the UK and sulphur and nitrous oxides in the US, are recorded as intangible assets within current assets, and they are initially recorded at cost and subsequently at the lower of cost and net realisable value. A liability is recorded in respect of the obligation to deliver emission allowances, and emission charges are recognised in the income statement in the period in which emissions are made.

	2019 £m	2018 £m
Fuel stocks	**99**	78
Raw materials and consumables	**184**	190
Current intangible assets – emission allowances	**87**	73
	370	341

There is a provision for obsolescence of £20 million against inventories as at 31 March 2019 (2018: £18 million).

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

19. Trade and other receivables

Trade and other receivables are amounts which are due from our customers for services we have provided.

Trade and other receivables are initially recognised at fair value and subsequently measured at amortised cost, less any appropriate allowances for estimated irrecoverable amounts.

	2019 £m	2018 £m
Trade receivables	1,899	1,674
Accrued income	883	817
Prepayments	237	229
Other receivables	134	78
	3,153	2,798

Trade receivables are non-interest-bearing and generally have a 30 to 90 days term. Due to their short maturities, the fair value of trade and other receivables approximates their book value. The maximum exposure of trade receivables to credit risk is the gross carrying amount of £2,293 million (2018: £1,983 million).

Provision for impairment of receivables

IFRS 9, effective from 1 April 2018, has changed the basis upon which the impairment provision is calculated. Under IFRS 9, a provision is recognised for credit losses at an amount equal to the expected credit losses that will arise over the lifetime of the trade receivables. Under IAS 39, a provision is established for irrecoverable amounts when there is objective evidence that amounts due under the original payment terms will not be collected. Comparative amounts have not been restated, with the 2018 impairment provision being calculated under IAS 39 and the 2019 impairment provision being calculated on the basis of expected losses under IFRS 9.

	2019 £m	2018 £m
At 1 April	309	424
Exchange adjustments	24	(42)
Charge for the year, net of recoveries	181	36
Uncollectible amounts written off	(120)	(109)
At 31 March	394	309

The provision for retail customer receivables in the US is calculated based on a series of provision matrices which are prepared by regulated entity and by customer type. The expected loss rates in each provision matrix are based on historical loss rates adjusted for current and forecasted economic conditions at the balance sheet date. The inclusion of forward-looking information in the provision matrix setting process under IFRS 9 resulted in loss rates that reflect expected future economic conditions and the recognition of an expected loss on all debtors even where no loss event has occurred. This had no material impact on the estimation process during the year.

The average expected loss rates and balances for the retail customer receivables in our US operations are set out below:

	2019 %	2019 £m	2018 %	2018 £m
0 – 30 days	3	736	3	741
30 – 60 days	12	194	8	192
60 – 90 days	20	89	19	97
3 – 6 months	30	109	29	97
6 – 12 months	39	99	39	88
Over 12 months	68	238	69	218

US retail customer receivables are not collateralised. Write-off policies vary as they are aligned with regulatory requirements, which differ between regulators. Receivables are not modified but are written off when regulatory requirements are met. There were no significant amounts written off during the period but still subject to enforcement action. Our internal definition of default is aligned with that of the individual regulators in each jurisdiction.

There are no material bad debt provisions in the UK businesses, as they have no retail customer receivables. A provision matrix is not used in the UK as an assessment of expected losses on individual debtors is performed. This is also the case for non-retail US customer receivables.

Trade receivables past due

	2019 £m	2018 £m
Up to 3 months past due	295	271
3 to 6 months past due	108	73
Over 6 months past due	160	131
	563	475

For further information on our wholesale and retail credit risk, refer to note 32(a).

20. Cash and cash equivalents

Cash and cash equivalents include cash balances, together with short-term investments with an original maturity of less than three months that are readily convertible to cash.

Net cash and cash equivalents reflected in the cash flow statement are net of bank overdrafts, which are reported in borrowings. The carrying amounts of cash and cash equivalents and bank overdrafts approximate their fair values.

Cash at bank earns interest at floating rates based on daily bank deposit rates. Short-term deposits are made for periods varying between one day and three months, depending on the immediate cash requirements, and earn interest at the respective short-term deposit rates.

Net cash and cash equivalents held in currencies other than sterling have been converted into sterling at year-end exchange rates. For further information on currency exposures, refer to note 32.

	2019 £m	2018 £m
Cash at bank	**177**	54
Short-term deposits	**75**	275
Cash and cash equivalents	**252**	329

21. Borrowings

We borrow money primarily in the form of bonds and bank loans. These are for a fixed term and may have fixed or floating interest rates or are linked to RPI. We use derivatives to manage risks associated with interest rates and foreign exchange.

Our price controls and rate plans lead us to fund our networks within a certain ratio of debt to equity and, as a result, we have issued a significant amount of debt. As we continue to invest in our networks, the value of debt is expected to increase over time. To maintain a strong balance sheet and to allow us to access capital markets at commercially acceptable interest rates, we balance the amount of debt we issue with the value of our assets, and we take account of certain other metrics used by credit rating agencies.

The Group adopted IFRS 9 with effect from 1 April 2018. The comparatives are not required to be restated and are accounted for in accordance with IAS 39. On adoption of IFRS 9, the Group elected to change the measurement basis of one liability from amortised cost to fair value through profit and loss, in order to eliminate a measurement mismatch. All other borrowings are accounted for at amortised cost.

Borrowings, which include interest-bearing and inflation-linked debt and overdrafts, are initially recorded at fair value, which normally reflects the proceeds received, net of direct issue costs less any repayments. Subsequently these are stated either: i) at amortised cost; or ii) at fair value though profit and loss. Where a borrowing is held at amortised cost any difference between the proceeds after direct issue costs and the redemption value is recognised over the term of the borrowing in the income statement using the effective interest method. For the liability held at fair value through profit and loss, the difference between the fair value at the date of reclassification and the redemption value is recognised over the term of the borrowing using the effective interest method.

Where a borrowing or liability is held at fair value, changes in the fair value of the borrowing due to changes in the issuer's credit risk are recorded in the own credit reserve (see note 28). All other changes in the fair value of the liability are recognised in the income statement within remeasurements (see notes 5 and 6).

2018

Under IAS 39, borrowings were all accounted for at amortised cost, using the effective interest method, as described above.

	2019 £m	2018 £m
Current		
Bank loans	**641**	2,020
Bonds	**1,973**	2,156
Commercial paper	**1,792**	206
Finance leases	**65**	64
Other loans	**1**	1
	4,472	4,447
Non-current		
Bank loans	**2,599**	2,384
Bonds[1]	**21,278**	19,418
Finance leases	**205**	207
Other loans	**176**	169
	24,258	22,178
Total borrowings	**28,730**	26,625

1. In 2019 this includes a liability held at fair value through profit and loss of £667 million.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

21. Borrowings continued

Total borrowings are repayable as follows:

	2019 £m	2018 £m
Less than 1 year	**4,472**	4,447
In 1 to 2 years	**2,393**	1,694
In 2 to 3 years	**1,990**	2,347
In 3 to 4 years	**1,553**	1,873
In 4 to 5 years	**714**	1,469
More than 5 years:		
By instalments	**959**	1,010
Other than by instalments	**16,649**	13,785
	28,730	26,625

The fair value of borrowings at 31 March 2019 was £32,252 million (2018: £30,164 million). Where market values were available, fair value of borrowings (Level 1) was £14,356 million (2018: £13,018 million). Where market values were not available, fair value of borrowings (Level 2) was £17,896 million (2018: £17,146 million), calculated by discounting cash flows at prevailing interest rates. The notional amount outstanding of the debt portfolio at 31 March 2019 was £28,417 million (2018: £26,363 million).

The assets of the Colonial Gas Company and the Niagara Mohawk Power Corporation and certain gas distribution assets of The Narragansett Electric Company are subject to liens and other charges and are provided as collateral over borrowings totalling £81 million at 31 March 2019 (2018: £392 million). During 2019, the Niagara Mohawk Power Corporation first mortgage debenture was cancelled; therefore, it is no longer subject to liens and other charges as at 31 March 2019.

Collateral is placed with or received from any counterparty where we have entered into a credit support annex to the ISDA Master Agreement once the current mark-to-market valuation of the trades between the parties exceeds an agreed threshold. Included in current bank loans is £558 million (2018: £878 million) in respect of cash received under collateral agreements. For further details of our borrowing facilities, refer to note 33. For further details of our bonds in issue, please refer to the debt investor section of our website. Unless included herein, the information on our website is unaudited.

Financial liability at fair value through profit and loss

The financial liability designated at fair value through profit and loss is analysed as follows:

i) the fair value of the liability was £667 million, which includes cumulative change in fair value attributable to changes in credit risk recognised in other comprehensive income, post tax of £13 million;

ii) the amount repayable at maturity in November 2021 is £943 million; and

iii) the difference between carrying amount and contractual amount at maturity is £276 million.

This liability has been reclassified in order to eliminate a measurement mismatch with derivatives which provide an economic hedge. The associated derivatives are collateralised and do not contain significant exposure to our own credit risk. The presentation of credit risk in other comprehensive income does not, therefore, create or enlarge an accounting mismatch in profit or loss.

The change in the fair value attributable to a change in credit risk is calculated as the difference between the total change in the fair value of the liability and the change in the value of the liability due to changes in market risk factors alone. The change in the fair value due to market risk factors was calculated using benchmark yield curves as at the end of the reporting period holding the credit risk margin constant. The fair value of the liability was calculated using observed market prices.

21. Borrowings continued

Finance lease obligations

Assets held under finance leases are recognised at their fair value or, if lower, the present value of the minimum lease payments on inception. The corresponding liability is recognised as a finance lease obligation within borrowings. Rental payments are apportioned between finance costs and reduction in the finance lease obligation, so as to achieve a constant rate of interest.

Assets held under finance leases are depreciated over the shorter of their useful life and the lease term.

	2019 £m	2018 £m
Gross finance lease liabilities are repayable as follows:		
Less than 1 year	**65**	64
1 to 5 years	**183**	177
More than 5 years	**62**	72
	310	313
Less: finance charges allocated to future periods	**(40)**	(42)
	270	271
The present value of finance lease liabilities is as follows:		
Less than 1 year	**65**	64
1 to 5 years	**156**	144
More than 5 years	**49**	63
	270	271

22. Trade and other payables

Trade and other payables include amounts owed to suppliers, tax authorities and other parties which are due to be settled within 12 months. The total also includes deferred amounts, some of which represent monies received from customers but for which we have not yet delivered the associated service. These amounts are recognised as revenue when the service is provided.

Trade and other payables are initially recognised at fair value and subsequently measured at amortised cost.

	2019 £m	2018 £m
Trade payables	**2,404**	1,977
Deferred payables	**217**	355
Customer contributions[1]	**87**	85
Social security and other taxes	**159**	173
Other payables	**902**	863
	3,769	3,453

1. From government-related entities.

Due to their short maturities, the fair value of trade payables approximates their book value.

Notes to the consolidated financial statements – analysis of items in the primary statements continued

23. Contract liabilities

Contract liabilities primarily relate to the advance consideration received from customers for construction contracts, mainly in relation to connections, for which revenue is recognised over the life of the asset.

The balances have arisen on transition to IFRS 15, which has been applied using the modified retrospective approach and therefore comparatives have not been restated.

	2019 £m	2018 £m
Current	61	–
Non-current	933	–
	994	–

Significant changes in the contract liabilities balances during the period are as follows:

	2019 £m
As at 1 April 2018 (see note 37)	866
Exchange adjustments	29
Revenue recognised that was included in the contract liability balance at the beginning of the period	(51)
Increases due to cash received, excluding amounts recognised as revenue during the period	155
Changes due to amounts recognised as revenue	(5)
At 31 March 2019	994

24. Other non-current liabilities

Other non-current liabilities include deferred income which will not be recognised as income until after 31 March 2020. It also includes payables that are not due until after that date.

Non-current liabilities are initially recognised at fair value and subsequently measured at amortised cost.

	2019 £m	2018 £m
Deferred income[1]	96	114
Customer contributions[2]	372	844
Other payables	340	359
	808	1,317

1. Principally the deferral of profits relating to the sale of property, plant and equipment.
2. From government-related entities.

There is no material difference between the fair value and the carrying value of other payables.

25. Pensions and other post-retirement benefits

All of our employees are eligible to participate in a pension plan. We have defined benefit (DB) and defined contribution (DC) pension plans. In the US we also provide healthcare and life insurance benefits to eligible employees, post-retirement. The fair value of associated scheme assets and present value of DB obligations are updated annually in accordance with IAS 19 (revised). We separately present our UK and US pension schemes to show geographical split. Below we provide a more detailed analysis of the amounts recorded in the primary financial statements and the actuarial assumptions used to value the DB obligations.

Defined contribution plans

All of our employees are eligible to participate in a pension plan in the UK or US. These plans are designed to provide members with a pension pot for their retirement. The risks associated with these plans are assumed by the member.

Payments to these DC plans are charged as an expense as they fall due. There is no legal or constructive obligation on National Grid to pay additional contributions into a DC plan if the fund has insufficient assets to pay all employees' benefits relating to employee service in the current and prior periods.

Defined benefit schemes

The principal UK schemes are the National Grid UK Pension Scheme (NGUKPS) and the National Grid Electricity Group of the Electricity Supply Pension Scheme (NGEG of ESPS). In the US, we have four plans and a number of healthcare and life insurance plans.

On retirement, members of DB schemes receive benefits whose value is dependent on factors such as salary and length of pensionable service. National Grid's obligation in respect of DB pension schemes is calculated separately for each DB scheme by projecting the estimated amount of future benefit payments that employees have earned for their pensionable service in the current and prior periods. These future benefit payments are discounted to determine the present value of the liabilities. Current service cost and any unrecognised past service cost are recognised immediately. The discount rate used is the yield at the valuation date on high-quality corporate bonds.

Advice is taken from independent actuaries relating to the appropriateness of the key assumptions applied, including life expectancy, expected salary and pension increases, and inflation. Comparatively small changes in the assumptions used may have a significant effect on the amounts recognised in the consolidated income statement, the consolidated statement of other comprehensive income and the net liability recognised in the consolidated statement of financial position.

Remeasurements of pension assets and post-retirement benefit obligations are recognised in full in the period in which they occur in the consolidated statement of other comprehensive income.

UK defined benefit plans and Guaranteed Minimum Pension (GMP) equalisation

In the UK, GMPs were intended to broadly replace State Earnings Related Pension Scheme (SERPS) benefits for members of contracted-out occupational pension schemes from April 1978 to April 1997. Inequalities in GMP stemmed from the statutory definition of GMP, resulting in benefits accruing at different rates between male and female members.

A High Court judgement in October 2018 confirmed that GMP benefits need to be equalised between men and women, and importantly also provided alternative prescribed methods of equalisation. This provides much-needed clarity, as there has been uncertainty in pensions law as it pertains to GMP equalisation.

However, schemes cannot directly equalise the GMPs, but need to adjust other benefits in order to achieve this, through correcting the ongoing position and making back-payments to affected members. This is a highly complex issue that will have a significant effect on the eventual cost of providing benefits, as well as significant cost implications in the calculation and implementation of the equalisation method. Under IAS 19 we have estimated the cost of equalising for the impact of GMP under the most cost-effective permissible method to be:

- Section A of NGUKPS – £17 million;
- Section B of NGUKPS – £12 million; and
- NGEG of ESPS – £5 million.

These amounts have been recognised in the consolidated income statement as past service costs.

The key drivers of these costs are the schemes' benefit structures, the membership profile and retirement choices made by members. National Grid will continue to work closely with the Trustees of NGUKPS and NGEG of ESPS, the actuaries and legal advisors to implement and administer GMP equalisation, which is expected to take some years. Future administration costs related to this process will be expensed as incurred.

Notes to the consolidated financial statements – analysis of items in the primary statements continued

25. Pensions and other post-retirement benefits continued

UK pension plans

Defined contribution

The National Grid YouPlan

National Grid pays contributions into YouPlan to provide DC benefits on behalf of employees. National Grid provides a double match of member contributions, up to a maximum of 6% of member salary.

YouPlan was established in 2013 and is the qualifying scheme that is typically used for automatic enrolment of new hires. Previous DC benefits were transferred to YouPlan in 2013.

Defined benefit

National Grid's DB pension arrangements are held in separate Trustee-administered funds. The arrangements are managed by Trustee companies with boards consisting of company- and member-appointed directors.

The arrangements are subject to independent actuarial funding valuations at least every three years, and following consultation and agreement with us, the qualified actuary certifies the employers' contributions, which, together with the specified contributions payable by the employees and proceeds from the plans' assets, are expected to be sufficient to fund the benefits payable.

The results of the most recent actuarial valuations are shown below. See page 147 for the assumptions used for IAS 19 (revised) purposes. Actuarial valuations for all the schemes are currently being performed as at 31 March 2019.

	Section A of NGUKPS	Section B of NGUKPS	NGEG of ESPS
Latest full actuarial valuation	31 March 2017	31 March 2017	31 March 2016
Actuary	Willis Towers Watson	Willis Towers Watson	Aon Hewitt
Market value of scheme assets at latest valuation	£6,716m	£5,849m	£2,553m
Actuarial value of benefits due to members	£6,627m	£6,057m	£3,053m
Market value as percentage of benefits	101%	97%	84%
Funding surplus/(deficit)	£89m	(£208m)	(£500m)
Funding surplus/(deficit) net of tax	£74m	(£173m)	(£415m)

National Grid UK Pension Scheme

NGUKPS consists of three sections, each legally and actuarially separate. Sections A and B are supported by companies within the Group, while Section C is supported by Cadent Gas Limited. The scheme closed to new hires on 1 April 2002.

Section A

Following the last actuarial valuation, Section A was in surplus, and currently no deficit funding contributions are being made to the section. National Grid and the Trustees have agreed a schedule of contributions whereby the employers will contribute 51.8% of pensionable salary, less member contributions, in respect of ongoing service costs. This rate is deemed to be sufficient to meet the statutory funding objective during the period for which it is in force.

As part of the sectionalisation of NGUKPS on 1 January 2017, a guarantee of £1 billion has been provided to Section A. This payment is contingent on insolvency or on failure to pay pension obligations to Section A and can be claimed against National Grid plc, National Grid Holdings One plc or Lattice Group Limited (up to £1 billion in total).

Section B

The last actuarial valuation determined that Section B was in deficit. National Grid and the Trustees agreed on a schedule of contributions, whereby deficit funding of approximately £32 million is payable by 30 September each year from 2017 until 2022, with an additional £8 million payable by 30 September 2023. All deficit funding amounts due will be adjusted for changes in the Retail Price Index (RPI). The funding shortfall is expected to be eliminated by September 2023. The employer also contributes 51.4% of pensionable salary, less member contributions, in respect of the ongoing service cost.

National Grid Electricity Group of the Electricity Supply Pension Scheme

The last full actuarial valuation for the NGEG of the ESPS determined that the scheme was in deficit. National Grid and the Trustees agreed on a schedule of contributions, whereby deficit funding of £48 million is payable each year from 2016 to 2027, which should lead to the elimination of the funding shortfall by March 2027. All deficit funding amounts due will be adjusted for changes in the RPI. In addition, National Grid contributes 40.7% of pensionable salary, less member contributions, in respect of the ongoing service cost. The scheme closed to new hires from 1 April 2006.

The scheme holds a longevity insurance contract which covers improvements in longevity, providing long-term protection to the scheme, should members live longer than currently expected.

National Grid is also responsible for the costs of administration and the Pension Protection Fund (PPF) levies for both Sections A and B of NGUKPS, and NGEG of ESPS.

Security arrangements

National Grid has also established security arrangements with charges in favour of the Trustees.

	Section A of NGUKPS	Section B of NGUKPS	NGEG of ESPS
Value of security arrangements at 31 March 2019	£315m	£179m	£250m
Principal supporting employers	National Grid plc and National Grid UK Limited	National Grid Gas plc (NGG)	National Grid Electricity Transmission plc (NGET)
Additional amounts payable[1]	£72m	A maximum of £280m	A maximum of £500m

1. These amounts are payable if certain trigger events occur which have been individually agreed between the schemes and their relevant supporting employers.

25. Pensions and other post-retirement benefits continued

The majority of the security is provided in the form of letters of credit with the remainder in surety bonds. The assets held in security will be paid to the respective section or scheme in the event that the relevant supporting employer is subject to an insolvency event or fails to make the required contributions. The assets will also be paid to the relevant section or scheme where either NGG or NGET loses its licence to operate under relevant legislation. Counter indemnities have also been taken out to ensure the obligations will be fulfilled.

US pension plans

National Grid has multiple DC pension plans, primarily comprised of employee savings and Company matching contributions. Non-union employees hired after 1 January 2011, as well as new hires in the majority of represented union employees, receive a core contribution into the DC plan, irrespective of the employee's contribution into the plan.

National Grid also sponsors four non-contributory DB pension plans. The DB plans provide retirement benefits to vested union employees, as well as vested non-union employees hired before 1 January 2011. Benefits under these plans generally reflect age, years of service and compensation and are paid in the form of an annuity or lump sum. An independent actuary performs valuations annually. The Company funds the DB plans by contributing no less than the minimum amount required, but no more than the maximum tax-deductible amount allowed under US Internal Revenue Service regulations. The range of contributions determined under these regulations can vary significantly depending upon the funded status of the plans. At present, there is some flexibility in the amount that is contributed on an annual basis. In general, the Company's policy for funding the US pension plans is to contribute the amounts collected in rates and capitalised in the rate base during the year, to the extent that the funding is no less than the minimum amount required. For the current financial year, these contributions amounted to approximately £231 million.

The assets of the plans are held in trusts and administered by the Retirement Plans Committee comprised of appointed employees of the Company.

US retiree healthcare and life insurance plans

National Grid provides healthcare and life insurance benefits to eligible employees, post-retirement. Eligibility is based on certain age and length of service requirements, and in most cases retirees contribute to the cost of their healthcare coverage. In the US, there is no governmental requirement to pre-fund post-retirement healthcare and life insurance plans. However, in general, the Company's policy for funding the US retiree healthcare and life insurance plans is to contribute amounts collected in rates and capitalised in the rate base during the year. For the current financial year, these contributions amounted to £14 million.

Actuarial assumptions

The Company has applied the following financial assumptions in assessing DB liabilities.

	UK pensions		
	2019 %	2018 %	2017 %
Discount rate – past service	**2.40**	2.60	2.40
Discount rate – future service	**2.45**	2.65	2.65
Salary increases	**3.50**	3.40	3.50
Rate of increase in RPI – past service	**3.25**	3.15	3.20
Rate of increase in RPI – future service	**3.20**	3.10	3.15

The discount rates for UK pension liabilities have been determined by reference to appropriate yields on high-quality corporate bonds prevailing in the UK debt markets at the reporting date. Since 2018, we have adopted different discount rates for future and past service based on the duration of future and past service plan liabilities. The rate of increase in salaries has been set using a promotional scale where appropriate. The rates of increases stated are not indicative of historical increases awarded or a guarantee of future increase, but merely an appropriate assumption used in assessing DB liabilities. Retail Price Index (RPI) is the key assumption that determines assumed increases in pensions in payment and deferment in the UK only. Consistent with the derivation of the discount rate, the RPI assumption reflects the duration of the active liabilities to be adopted in the calculation of the future service obligations.

	US pensions			US other post-retirement benefits		
	2019 %	2018 %	2017 %	**2019 %**	2018 %	2017 %
Discount rate	**3.95**	4.00	4.25	**3.95**	4.00	4.25
Salary increases	**3.50**	3.50	3.50	**3.50**	3.50	3.50
Initial healthcare cost trend rate	**n/a**	n/a	n/a	**7.25**	7.50	7.00
Ultimate healthcare cost trend rate	**n/a**	n/a	n/a	**4.50**	4.50	4.50

Discount rates for US pension liabilities have been determined by reference to appropriate yield on high-quality corporate bonds prevailing in the US debt markets at the reporting date based on the duration of plan liabilities. The healthcare cost trend rate is expected to reach the ultimate trend rate by 2028 (2018 and 2017: 2028).

	2019		2018		2017	
	UK years	**US years**	UK years	US years	UK years	US years
Assumed life expectations for a retiree age 65						
Males	**22.0**	**22.1**	22.3	22.0	22.9	21.9
Females	**23.6**	**24.2**	23.9	24.2	24.7	24.1
In 20 years:						
Males	**23.3**	**23.7**	23.7	23.6	25.1	23.6
Females	**25.2**	**25.9**	25.5	25.8	27.1	25.7

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

25. Pensions and other post-retirement benefits continued

Maturity profile of DB obligations

The weighted average duration of the DB obligation for each category of scheme is 15 years for UK pension schemes; 13 years for US pension schemes and 16 years for US other post-retirement benefits.

As at the reporting date, the present value of the funded obligations split according to member status was approximately:

- UK pensions: 10% active members (2018: 10%; 2017: 12%); 16% deferred members (2018: 18%; 2017: 19%); 74% pensioner members (2018: 72%; 2017: 69%);
- US pensions: 37% active members (2018: 38%; 2017: 38%); 9% deferred members (2018: 8%; 2017: 9%); 54% pensioner members (2018: 54%; 2017: 53%); and
- US other post-retirement benefits: 39% active members (2018: 38%; 2017: 39%); 0% deferred members (2018: 0%; 2017: 0%); 61% pensioner members (2018: 62%; 2017: 61%).

For sensitivity analysis see note 35.

Amounts recognised in the consolidated statement of financial position

	2019 £m	2018 £m	2017 £m
Present value of funded obligations	(24,609)	(23,747)	(25,890)
Fair value of plan assets	24,793	23,858	24,375
	184	111	(1,515)
Present value of unfunded obligations	(330)	(307)	(340)
Other post-employment liabilities	(72)	(67)	(78)
Net defined benefit liability	(218)	(263)	(1,933)
Represented by:			
Liabilities	(1,785)	(1,672)	(2,536)
Assets	1,567	1,409	603
	(218)	(263)	(1,933)

The geographical split of pensions and other post-retirement benefits is as shown below:

	UK Pensions			US Pensions			US other post-retirement benefits		
	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m
Present value of funded obligations	(14,200)	(14,152)	(15,565)	(6,901)	(6,349)	(6,790)	(3,508)	(3,246)	(3,535)
Fair value of plan assets	15,507	15,330	15,489	6,646	6,030	6,322	2,640	2,498	2,564
	1,307	1,178	(76)	(255)	(319)	(468)	(868)	(748)	(971)
Present value of unfunded obligations	(76)	(74)	(80)	(254)	(233)	(260)	–	–	–
Other post-employment liabilities	–	–	–	–	–	–	(72)	(67)	(78)
Net defined benefit asset/(liability)	1,231	1,104	(156)	(509)	(552)	(728)	(940)	(815)	(1,049)
Represented by:									
Liabilities	(76)	(74)	(536)	(769)	(783)	(951)	(940)	(815)	(1,049)
Assets	1,307	1,178	380	260	231	223	–	–	–
	1,231	1,104	(156)	(509)	(552)	(728)	(940)	(815)	(1,049)

The recognition of the pension assets in both the UK in relation to the NGUKPS, the NGEG of ESPS and the Niagara Mohawk Plan in the US reflect legal and actuarial advice that we have taken regarding recognition of surpluses under IFRIC 14. In all three cases we have concluded that the Group has an unconditional right to a refund from the individual plans, including from each Section of the NGUKPS and the NGEG of ESPS, in the event of a winding-up. In the UK, the Trustees must seek the agreement of the Company to any benefit augmentation beyond the provisions set out in the Scheme Rules. In the US, the surplus assets may be used to pay benefits under other Plans, thereby allowing the Company to settle other liabilities under other Plans.

25. Pensions and other post-retirement benefits continued

Amounts recognised in the income statement and statement of other comprehensive income

	2019 £m	2018 £m	2017 £m
Included within operating costs			
Administration costs	**14**	16	16
Included within payroll costs			
Defined benefit scheme costs:			
Current service cost	**193**	193	232
Past service cost – augmentations	**5**	1	1
Past service credit – redundancies	**(7)**	(1)	(1)
Special termination benefit cost – redundancies	**55**	9	7
Past service cost – plan amendments	**34**	–	–
	280	202	239
Included within finance income and costs			
Net interest cost	**22**	65	105
Included within gain on disposal of discontinued operations			
Administration costs	**–**	–	5
Disposal of UK Gas Distribution	**–**	–	34
	–	–	39
Total included in income statement[1,2]	**316**	283	399
Remeasurement gains of pension assets and post-retirement benefit obligations	**68**	1,313	348
Exchange adjustments	**(101)**	175	(345)
Total included in the statement of other comprehensive income[2]	**(33)**	1,488	3

1. Amounts recognised in the income statement include operating costs of £nil (2018: £nil; 2017: £1 million); payroll costs of £nil (2018: £nil; 2017: £35 million); and net interest of £nil (2018: £nil; 2017: £2 million income) presented within profit from discontinued operations. These amounts all relate to UK pensions. In addition there is a net charge of £52 million (2018: £nil; 2017: £nil) relating to redundancy pension costs in respect of the UK cost efficiency and restructuring programme included within exceptional items.
2. Amounts recognised in the statement of other comprehensive income include remeasurements of pension assets and post-retirement benefit obligations of £nil (2018: £nil; 2017: £75 million loss) presented within discontinued operations. These amounts all relate to UK pensions.

The geographical split of pensions and other post-retirement benefits is as shown below:

	UK Pensions			US Pensions			US other post-retirement benefits		
	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m
Included within operating costs									
Administration costs	**6**	6	6	**7**	9	9	**1**	1	1
Included within payroll costs									
Defined benefit scheme costs:									
Current service cost	**41**	49	76	**104**	98	103	**48**	46	53
Past service cost – augmentations	**5**	1	1	**–**	–	–	**–**	–	–
Past service credit – redundancies	**(7)**	(1)	(1)	**–**	–	–	**–**	–	–
Special termination benefit cost – redundancies	**55**	9	7	**–**	–	–	**–**	–	–
Past service cost – plan amendments	**34**	–	–	**–**	–	–	**–**	–	–
	128	58	83	**104**	98	103	**48**	46	53
Included within finance income and costs									
Net interest cost	**(31)**	3	–	**21**	27	43	**32**	35	62
Included within gain on disposal of discontinued operations									
Administration costs	**–**	–	5	**–**	–	–	**–**	–	–
Disposal of UK Gas Distribution	**–**	–	34	**–**	–	–	**–**	–	–
	–	–	39	**–**	–	–	**–**	–	–
Total included in income statement	**103**	67	128	**132**	134	155	**81**	82	116
Remeasurement gains/(losses) of pension assets and post-retirement benefit obligations	**57**	1,177	(541)	**(14)**	27	319	**25**	109	570
Exchange adjustments	**–**	–	–	**(42)**	75	(140)	**(59)**	100	(205)
Total included in the statement of other comprehensive income	**57**	1,177	(541)	**(56)**	102	179	**(34)**	209	365

Notes to the consolidated financial statements – analysis of items in the primary statements continued

25. Pensions and other post-retirement benefits continued

Reconciliation of the net defined benefit liability

	2019 £m	2018 £m	2017 £m
Opening net defined benefit liability	**(263)**	(1,933)	(2,585)
Cost recognised in the income statement	**(316)**	(283)	(399)
Remeasurement and foreign exchange effects recognised in the statement of other comprehensive income	**(33)**	1,488	3
Employer contributions	**419**	475	1,073
Other movements	**(25)**	(10)	(25)
Closing net defined benefit liability	**(218)**	(263)	(1,933)

The geographical split of pensions and other post-retirement benefits is as shown below:

	UK pensions			US pensions			US other post-retirement benefits		
	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m
Opening net defined benefit asset/(liability)	**1,104**	(156)	(15)	**(552)**	(728)	(1,009)	**(815)**	(1,049)	(1,561)
Cost recognised in the income statement	**(103)**	(67)	(128)	**(132)**	(134)	(155)	**(81)**	(82)	(116)
Remeasurement and foreign exchange effects recognised in the statement of other comprehensive income	**57**	1,177	(541)	**(56)**	102	179	**(34)**	209	365
Employer contributions	**174**	150	528	**231**	208	257	**14**	117	288
Other movements	**(1)**	–	–	**–**	–	–	**(24)**	(10)	(25)
Closing net defined benefit asset/(liability)	**1,231**	1,104	(156)	**(509)**	(552)	(728)	**(940)**	(815)	(1,049)

25. Pensions and other post-retirement benefits continued

Changes in the present value of defined benefit obligations (including unfunded obligations)

	2019 £m	2018 £m	2017 £m
Opening defined benefit obligations	**(24,054)**	(26,230)	(28,952)
Current service cost	**(193)**	(193)	(232)
Interest cost	**(771)**	(775)	(1,057)
Actuarial (losses)/gains – experience	**(69)**	(100)	166
Actuarial gains – demographic assumptions	**266**	671	225
Actuarial (losses)/gains – financial assumptions	**(619)**	174	(3,377)
Past service credit – redundancies	**7**	1	1
Special termination benefit cost – redundancies	**(55)**	(9)	(7)
Past service cost – augmentations	**(5)**	(1)	(1)
Past service cost – plan amendments	**(34)**	–	–
Medicare subsidy received	**(19)**	(21)	(14)
Obligations transferred on disposal of UK Gas Distribution	**–**	–	6,970
Employee contributions	**(1)**	(1)	(1)
Benefits paid	**1,376**	1,285	1,443
Exchange adjustments	**(768)**	1,145	(1,394)
Closing defined benefit obligations	**(24,939)**	(24,054)	(26,230)

The geographical split of pensions and other post-retirement benefits is as shown below:

	UK pensions			US pensions			US other post-retirement benefits		
	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m
Opening defined benefit obligations	**(14,226)**	(15,645)	(19,416)	**(6,582)**	(7,050)	(6,145)	**(3,246)**	(3,535)	(3,391)
Current service cost	**(41)**	(49)	(76)	**(104)**	(98)	(103)	**(48)**	(46)	(53)
Interest cost	**(358)**	(366)	(615)	**(277)**	(273)	(285)	**(136)**	(136)	(157)
Actuarial (losses)/gains – experience	**(56)**	(95)	106	**(52)**	(38)	(2)	**39**	33	62
Actuarial gains – demographic assumptions	**224**	565	214	**–**	30	2	**42**	76	9
Actuarial (losses)/gains – financial assumptions	**(568)**	604	(3,751)	**(24)**	(279)	37	**(27)**	(151)	337
Past service credit – redundancies	**7**	1	1	**–**	–	–	**–**	–	–
Special termination benefit cost – redundancies	**(55)**	(9)	(7)	**–**	–	–	**–**	–	–
Past service cost – augmentations	**(5)**	(1)	(1)	**–**	–	–	**–**	–	–
Past service cost – plan amendments	**(34)**	–	–	**–**	–	–	**–**	–	–
Medicare subsidy received	**–**	–	–	**–**	–	–	**(19)**	(21)	(14)
Obligations transferred on disposal of UK Gas Distribution	**–**	–	6,970	**–**	–	–	**–**	–	–
Employee contributions	**(1)**	(1)	(1)	**–**	–	–	**–**	–	–
Benefits paid	**837**	770	931	**398**	362	349	**141**	153	163
Exchange adjustments	**–**	–	–	**(514)**	764	(903)	**(254)**	381	(491)
Closing defined benefit obligations	**(14,276)**	(14,226)	(15,645)	**(7,155)**	(6,582)	(7,050)	**(3,508)**	(3,246)	(3,535)

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

25. Pensions and other post-retirement benefits continued

Changes in the value of plan assets

	2019 £m	2018 £m	2017 £m
Opening fair value of plan assets	**23,858**	24,375	26,434
Interest income	**749**	710	952
Return on plan assets in excess of interest	**490**	568	3,334
Administration costs	**(14)**	(16)	(21)
Employer contributions	**419**	475	1,073
Employee contributions	**1**	1	1
Benefits paid	**(1,377)**	(1,285)	(1,443)
Exchange adjustments	**667**	(970)	1,049
Assets transferred on disposal of UK Gas Distribution	**–**	–	(7,004)
Closing fair value of plan assets	**24,793**	23,858	24,375
Actual return on plan assets	**1,239**	1,278	4,286
Expected contributions to plans in the following year	**307**	363	491

The geographical split of pensions and other post-retirement benefits is as shown below:

	UK pensions			US pensions			US other post-retirement benefits		
	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m	2019 £m	2018 £m	2017 £m
Opening fair value of plan assets	**15,330**	15,489	19,401	**6,030**	6,322	5,136	**2,498**	2,564	1,897
Interest income	**389**	363	615	**256**	246	242	**104**	101	95
Return on plan assets in excess of/(less than) interest	**457**	103	2,890	**62**	314	282	**(29)**	151	162
Administration costs	**(6)**	(6)	(11)	**(7)**	(9)	(9)	**(1)**	(1)	(1)
Employer contributions	**174**	150	528	**231**	208	257	**14**	117	288
Employee contributions	**1**	1	1	**–**	–	–	**–**	–	–
Benefits paid	**(838)**	(770)	(931)	**(398)**	(362)	(349)	**(141)**	(153)	(163)
Exchange adjustments	**–**	–	–	**472**	(689)	763	**195**	(281)	286
Assets transferred on disposal of UK Gas Distribution	**–**	–	(7,004)	**–**	–	–	**–**	–	–
Closing fair value of plan assets	**15,507**	15,330	15,489	**6,646**	6,030	6,322	**2,640**	2,498	2,564
Actual return on plan assets	**846**	466	3,505	**318**	560	524	**75**	252	257
Expected contributions to plans in the following year	**148**	140	128	**150**	221	229	**9**	2	134

Asset allocation strategy

Each plan's investment strategy is formulated specifically in order to target specific asset allocations and returns, and to manage risk. The asset allocation of the plans as at 31 March 2019 is as follows:

	UK pensions %	US pensions %	US other post-retirement benefits %
Equities	12.7	40.8	60.2
Corporate bonds	23.4	26.4	0.7
Government securities	39.4	16.0	20.6
Property	5.5	4.7	–
Diversified alternatives	5.0	10.1	12.9
Liability matching assets	11.1	–	–
Infrastructure	–	1.5	–
Cash and cash equivalents	1.9	0.3	–
Other	1.0	0.2	5.6
	100.0	100.0	100.0

25. Pensions and other post-retirement benefits continued

Defined benefit investment strategies and risks

DB pension schemes can pose a significant risk to future cash flows, as National Grid underwrites the financial and demographic risks associated with these plans. Although the governing bodies have sole responsibility for setting investment strategies and managing risks, National Grid closely works with and supports the governing bodies of each scheme, to assist them in mitigating the risks associated with their schemes and to ensure that the schemes are funded to meet their obligations.

In the UK, each scheme has a Trustee that is the governing body. The Trustees' responsibilities are set out in the Trust Deed and Rules. In the US, the fiduciary committee for all the retirement plans is the Retirement Plan Committee (RPC). The RPC is structured in accordance with US laws governing retirement plans under the Employee Retirement Income Security Act (ERISA).

The Trustees and RPC, after taking advice from professional investment advisors and in consultation with National Grid, set the key principles, including expected returns, risk and liquidity requirements. In setting these they take into account expected contributions, maturity of the pension liabilities, and in the UK, the strength of the covenant. The Trustees and RPC formulate an investment strategy to manage risk through diversification, including the use of liability-matching assets, which move in line with the long-term liabilities of the scheme, and return-seeking assets, some of which are designed to mitigate downside risk. Where appropriate, the strategies may include interest rate and inflation hedging instruments, and currency hedging to hedge overseas holdings.

Investments are usually grouped into:

- Return-seeking assets: equities, property and diversified funds where the objective is to achieve growth within the constraints of the schemes' risk profiles. These assets should produce returns greater than the liability increase, so improving the funding position, and are assessed by reference to benchmarks and performance targets agreed with the investment managers; and
- Liability-matching assets: liability-driven investment (LDI) funds and swaps, where the objective is to secure fixed or inflation-adjusted cash flows in future. These investments are generally expected to match the change in liability valuation, so protecting the funding position. Bonds and securities are also measured against certain market benchmarks.

Investments are predominantly made in assets considered to be of investment grade. Where investments are made in non-investment grade assets, the higher volatility involved is carefully judged and balanced against the expected higher returns. Similarly, investments are made predominantly in regulated markets. Where investments are made either in non-investment grade assets or outside of regulated markets, investment levels are kept to prudent levels and subject to agreed control ranges, to control the risk. Should these investments fall outside the pre-agreed ranges, corrective actions and timescales are agreed with the investment manager to remedy the position.

The governing bodies ensure that the performance of investment managers is regularly reviewed against measurable objectives, consistent with each scheme's long-term objectives and accepted risk levels. Where required, the portfolios are amended, or investment managers changed.

The Trustees and RPC can generally delegate responsibility for the selection of specific bonds, securities and other investments to appointed investment managers. Investment managers are selected based on the required skills, expertise of those markets, process and financial security to manage the investments. The investment managers use their skill and expertise to manage the investments competently. In some cases they may further delegate this responsibility, through appointing sub-managers.

The schemes hold sufficient cash to meet benefit requirements, with other investments being held in liquid or realisable assets to meet unexpected cash flow requirements. The schemes do not borrow money, or act as guarantor, to provide liquidity (unless it is temporary).

The NGUKPS Trustee believes that long-term shareholder value and financial success can be protected and enhanced by a responsible environmental, social and corporate governance (ESG) policy. As such, the NGUKPS' appointed investment managers are expected to be mindful of ESG issues when managing the scheme's assets. Day-to-day stewardship (voting and engagement) is delegated to the investment managers and they are encouraged to adhere to the UK Stewardship Code.

The most significant risks associated with the DB plans are:

- Asset volatility – the schemes invest in a variety of asset classes, but principally in equities, government securities, corporate bonds and property. Consequently actual returns will differ from the underlying discount rate adopted, impacting on the funding position of the scheme through the net balance sheet asset or liability. Each scheme seeks to balance the level of investment return required with the risk that it can afford to take, to design the most appropriate investment portfolio. Volatility will be controlled through using liability-matching asset strategies, interest rate hedging and management of foreign exchange exposure, as well as diversification of the return-seeking assets;
- Changes in bond yields – liabilities are calculated using discount rates set with reference to the yields in high-quality corporate bonds prevailing in the UK and US debt markets and will fluctuate as yields change;
- Member longevity – longevity is a key driver of liabilities and changes in expected mortality have a direct impact on liabilities. In aggregate, the liabilities are relatively mature, which mitigates the risk to a certain extent. The NGEG of ESPS holds a longevity insurance contract (swap) which covers exposure to improvement in longevity, providing long-term protection to the scheme in the event that members live longer than expected at the time the swap was entered into;
- Deficit risk – the risk that the increase in the liability will outpace the growth in assets is managed through assessing the progress of the actual growth of the liabilities relative to the selected investment policy and adjusting the policy as required;
- Manager risk – expected deviation of the return, relative to the benchmark, is carefully monitored, as is the process, team and expertise of the manager. Where appropriate, the Trustee or RPC will move assets under management to a more robust manager, whom they consider will have a better expectation of performing well in the future;
- Currency risk – fluctuations in the value of foreign denominated assets due to exposure to currency exchange rates is managed through a combination of segregated currency hedging overlay and currency hedging carried out by some of the investment managers.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

25. Pensions and other post-retirement benefits continued

Defined benefit investment strategies and risks continued

- Interest rate and inflation risk – changes in inflation will affect the current and future pensions but are partially mitigated through investing in inflation-matching assets and hedging instruments;
- Investment funds – the credit risk arising from investing in investment funds is mitigated by the underlying assets of the investment funds being ring-fenced from the fund managers, the regulatory environments in which the fund managers operate and diversification of investments among investment fund arrangements;
- Political risk – an adverse influence on asset values arising from political intervention in a specific country or region is managed through regular review of the asset distribution and through ensuring geographical diversification of investments within the managers;
- Counterparty risk – is managed by having a diverse range of counterparties and through having a strong collateralisation process. Measurement and management of counterparty risk is delegated to the relevant investment managers; and
- Custodian risk – the creditworthiness and ability of the custodians to settle trades on time and provide secure safekeeping of the assets under custody is managed by ongoing monitoring of the custodial arrangements against pre-agreed service levels and credit ratings.

Asset allocations

Within the asset allocations below, there is significant diversification across regions, asset managers, currencies and bond categories.

UK pensions

	2019			2018			2017		
	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities[1]	1,181	784	1,965	1,420	813	2,233	2,624	596	3,220
Corporate bonds	3,625	–	3,625	3,949	–	3,949	3,526	–	3,526
Government securities	6,114	–	6,114	5,629	–	5,629	5,406	–	5,406
Property	108	749	857	129	834	963	90	708	798
Diversified alternatives	–	771	771	99	690	789	250	628	878
Liability-matching assets	1,751	(35)[2]	1,716	1,174	–	1,174	1,162	–	1,162
Cash and cash equivalents	40	259	299	211	215	426	211	412	623
Other (including net current assets and liabilities)	–	160	160	–	167	167	(148)	24	(124)
	12,819	2,688	15,507	12,611	2,719	15,330	13,121	2,368	15,489

1. Included within equities at 31 March 2019 were ordinary shares of National Grid plc with a value of £nil (2018: £nil; 2017: £2 million).
2. Comprises the longevity insurance contract within the NGEG of the ESPS.

US pensions

	2019			2018			2017		
	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities	533	2,178	2,711	577	1,954	2,531	698	1,915	2,613
Corporate bonds	1,329	425	1,754	1,085	413	1,498	1,130	537	1,667
Government securities	422	640	1,062	414	565	979	872	71	943
Property	–	316	316	–	279	279	–	335	335
Diversified alternatives	183	487	670	198	421	619	209	433	642
Infrastructure	–	99	99	–	77	77	–	79	79
Cash and cash equivalents	21	–	21	14	–	14	28	–	28
Other (including net current assets and liabilities)	(8)	21	13	6	27	33	3	12	15
	2,480	4,166	6,646	2,294	3,736	6,030	2,940	3,382	6,322

US other post-retirement benefits

	2019			2018			2017		
	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities	404	1,184	1,588	412	1,110	1,522	405	1,162	1,567
Corporate bonds	19	–	19	24	–	24	19	–	19
Government securities	540	3	543	508	2	510	520	1	521
Diversified alternatives	175	166	341	161	144	305	166	149	315
Other[1]	–	149	149	–	137	137	–	142	142
	1,138	1,502	2,640	1,105	1,393	2,498	1,110	1,454	2,564

1. Other primarily comprises insurance contracts.

26. Provisions

We make provisions when an obligation exists resulting from a past event, and it is probable that cash will be paid to settle it, but the exact amount of cash required can only be estimated.

The main estimates relate to environmental remediation and decommissioning costs for various sites we own or have owned and other provisions, including restructuring plans and lease contracts we have entered into that are now loss making. The evaluation of the likelihood of the contingent events has required best judgement by management regarding the probability of exposure to potential loss. Should circumstances change following unforeseeable developments, the likelihood could alter.

In the current year we recognised a charge to restructuring provisions, reflecting the review and reorganisation of our core regulated businesses in both the UK and US.

Provisions are recognised where a legal or constructive obligation exists at the reporting date, as a result of a past event, where the amount of the obligation can be reliably estimated and where the outflow of economic benefit is probable.

Provision is made for decommissioning and environmental costs, based on future estimated expenditures, discounted to present values. An initial estimate of decommissioning and environmental costs attributable to property, plant and equipment is recorded as part of the original cost of the related property, plant and equipment.

Changes in the provision arising from revised estimates or discount rates or changes in the expected timing of expenditures that relate to property, plant and equipment are recorded as adjustments to their carrying value and depreciated prospectively over their remaining estimated useful economic lives; otherwise such changes are recognised in the income statement.

The unwinding of the discount is included within the income statement as finance costs.

	Environmental £m	Decommissioning £m	Restructuring £m	Emissions £m	Other £m	Total provisions £m
At 1 April 2017	1,721	221	17	32	597	2,588
Exchange adjustments	(158)	(9)	–	(2)	(26)	(195)
Additions	27	2	10	12	23	74
Unused amounts reversed[1]	(45)	(19)	(6)	–	(37)	(107)
Unwinding of discount	61	5	1	–	8	75
Utilised[2]	(75)	(6)	(7)	(34)	(146)	(268)
Transfers[3]	–	–	(12)	–	(103)	(115)
At 31 March 2018	1,531	194	3	8	316	2,052
Exchange adjustments	103	7	–	–	14	124
Additions	32	18	125	16	35	226
Unused amounts reversed[1]	(36)	(10)	(3)	(6)	(10)	(65)
Unwinding of discount	62	5	–	–	7	74
Utilised[2]	(53)	(26)	(42)	(9)	(79)	(209)
Transfers[3]	–	–	–	–	(3)	(3)
At 31 March 2019	**1,639**	**188**	**83**	**9**	**280**	**2,199**

	2019 £m	2018 £m
Current	**316**	273
Non-current	**1,883**	1,779
	2,199	2,052

1. Unused amounts reversed from other provisions include £nil (2018: £16 million) in relation to discontinued operations.
2. Utilised amounts for other provisions include £20 million (2018: £77 million) in relation to discontinued operations.
3. Represents net amounts transferred to trade and other payables (see note 22) of £3 million (2018: £115 million).

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

26. Provisions continued

Environmental provisions

The environmental provision represents the estimated restoration and remediation costs relating to a number of sites owned and managed by subsidiary undertakings, together with certain US sites that National Grid no longer owns. The environmental provision is as follows:

	2019			2018		
	Discounted £m	**Undiscounted £m**	**Real discount rate**	Discounted £m	Undiscounted £m	Real discount rate
UK sites	**189**	**210**	**1%**	213	235	1%
US sites	**1,450**	**1,555**	**1%**	1,318	1,410	1%
	1,639	**1,765**		1,531	1,645	

The remediation expenditure in the UK relates to old gas manufacturing sites and also to electricity transmission sites. Cash flows are expected to be incurred until 2076 although the weighted average duration of the cash flows is 12 years. A number of estimation uncertainties affect the calculation of the provision, including the impact of regulation, the accuracy of site surveys, unexpected contaminants, transportation costs, the impact of alternative technologies and changes in the real discount rate. This provision incorporates our best estimate of the financial effect of these uncertainties, but future changes in any of the assumptions could materially impact the calculation of the provision. The undiscounted amount is the undiscounted best estimate of the liability having regard to these uncertainties.

The remediation expenditure in the US is expected to be incurred until 2069. The weighted average duration of the cash flows is nine years. The uncertainties regarding the calculation of this provision are similar to those considered in respect of UK sites. This expenditure is expected to be largely recoverable from ratepayers under the terms of various rate agreements in the US.

Decommissioning provisions

The decommissioning provision represents £80 million (2018: £71 million) of expenditure relating to asset retirement obligations estimated to be incurred until 2115, and £90 million (2018: £104 million) of expenditure relating to the demolition of gas holders estimated to be incurred until 2026. It also includes the net present value of the estimated expenditure (discounted at a real rate of 1%) expected to be incurred until 2044 in respect of the decommissioning of certain US nuclear generating units that National Grid no longer owns.

Restructuring provisions

During the year, a cost-efficiency and restructuring programme was undertaken in both our UK and US businesses, as detailed in note 5. This resulted in the recognition of a £125 million charge in the year and a closing provision of £83 million. We expect the majority of the provision to be utilised within one year.

Other provisions

Included within other provisions at 31 March 2019 are the following amounts:

- £30 million (2018: £50 million) in respect of legacy provisions recognised following the sale of UK Gas Distribution;
- £29 million (2018: £48 million) in respect of onerous lease commitments and rates payable on surplus properties with expenditure expected to be incurred until 2039;
- £164 million (2018: £152 million) of estimated liabilities in respect of past events insured by insurance subsidiary undertakings, including employer liability claims. In accordance with insurance industry practice, these estimates are based on experience from previous years and there is, therefore, no identifiable payment date; and
- £13 million (2018: £13 million) in respect of obligations associated with investments in joint ventures and associates.

27. Share capital

Ordinary share capital represents the total number of shares issued which are publicly traded. We also disclose the number of treasury shares the Company holds, which are shares that the Company has bought itself, predominately to actively manage scrip issuances and settle employee share option and reward plan liabilities.

Share capital is accounted for as an equity instrument. An equity instrument is any contract that includes a residual interest in the consolidated assets of the Company after deducting all its liabilities and is recorded at the proceeds received, net of direct issue costs, with an amount equal to the nominal amount of the shares issued included in the share capital account and the balance recorded in the share premium account.

	Allotted, called-up and fully paid	
	million	£m
At 1 April 2017	3,943	449
Effect of share consolidation[1]	(328)	–
Issued during the year in lieu of dividends[2]	23	3
At 31 March 2018	3,638	452
Issued during the year in lieu of dividends[2]	49	6
At 31 March 2019	**3,687**	**458**

1. On 22 May 2017 the ordinary share capital was consolidated with 11 new ordinary shares of $12\frac{204}{473}$ pence nominal value issued for every 12 existing ordinary shares of $11\frac{17}{43}$ pence nominal value. This consolidation was completed to maintain the comparability of the Company's share price before and after the special dividend.
2. The issue of shares under the scrip dividend programme is considered to be a bonus issue under the terms of the Companies Act 2006, and the nominal value of the shares is charged to the share premium account.

The share capital of the Company consists of ordinary shares of $12\frac{204}{473}$ pence nominal value each including ADSs. The ordinary shares and ADSs allow holders to receive dividends and vote at general meetings of the Company. The Company holds treasury shares but may not exercise any rights over these shares including the entitlement to vote or receive dividends. There are no restrictions on the transfer or sale of ordinary shares.

In line with the provisions of the Companies Act 2006, the Company has amended its Articles of Association and ceased to have authorised share capital.

Treasury shares

At 31 March 2019, the Company held 277 million (2018: 283 million) of its own shares. The market value of these shares as at 31 March 2019 was £2,359 million (2018: £2,270 million).

The Company made the following transactions in respect of its own shares during the year ended 31 March 2019:

i) During the year, 3 million (2018: 3 million) treasury shares were gifted to National Grid Employee Share Trusts and 3 million (2018: 5 million) treasury shares were re-issued in relation to employee share schemes, in total representing approximately 0.2% (2018: 0.2%) of the ordinary shares in issue as at 31 March 2019. The nominal value of these shares was £1 million (2018: £1 million) and the total proceeds received were £18 million (2018: £33 million).

ii) During the year, the Company made payments totalling £2 million (2018: £5 million) to National Grid Employee Share Trusts to enable the trustees to make purchases of National Grid plc shares in order to satisfy the requirements of employee share option and reward plans.

During the prior year, the Company completed a share repurchase programme as part of the return of cash to shareholders following the sale of UK Gas Distribution in addition to the management of the dilutive effect of share issuances under the scrip dividend programme. As a result the Company repurchased 114 million ordinary shares for aggregate consideration of £1,017 million including transaction costs. The shares repurchased had a nominal value of £14 million and represented approximately 3.1% of the ordinary shares in issue as at 31 March 2018.

The maximum number of ordinary shares held in treasury during the year was 283 million (2018: 283 million) representing approximately 7.7% (2018: 7.8%) of the ordinary shares in issue as at 31 March 2019 and having a nominal value of £35 million (2018: £35 million).

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

28. Other equity reserves

Other equity reserves are different categories of equity as required by accounting standards and represent the impact of a number of our historical transactions.

Other equity reserves comprise the translation reserve (see accounting policy D in note 1), cash flow hedge reserve and the cost of hedging reserve (see note 32), available-for-sale reserve, debt instruments at fair value through other comprehensive income reserve (FVOCI debt) and equity investments at fair value through other comprehensive income reserve (FVOCI equity) (see note 15), the capital redemption reserve and the merger reserve. The merger reserve arose as a result of the application of merger accounting principles under the then prevailing UK GAAP, which under IFRS 1 was retained for mergers that occurred prior to the IFRS transition date. Under merger accounting principles, the difference between the carrying amount of the capital structure of the acquiring vehicle and that of the acquired business was treated as a merger difference and included within reserves. The cash flow hedge reserve will amortise as the committed future cash flows from borrowings are paid or capitalised in fixed assets (as described in note 32). Cost of hedging, FVOCI debt, and FVOCI equity reserves arose as a result of the adoption of IFRS 9 on 1 April 2018. See note 15 for further detail on FVOCI debt and FVOCI equity reserves and note 32 in respect of cost of hedging reserve.

As the amounts included in other equity reserves are not attributable to any of the other classes of equity presented, they have been disclosed as a separate classification of equity.

	Translation £m	Cash flow hedge £m	Cost of hedging £m	Available-for-sale £m	FVOCI equity £m	FVOCI debt £m	Own credit £m	Capital redemption £m	Merger £m	Total £m
At 1 April 2016	548	(45)	–	120	–	–	–	19	(5,165)	(4,523)
Exchange adjustments[1]	346	–	–	–	–	–	–	–	–	346
Net (losses)/gains taken to equity	–	(36)	–	81	–	–	–	–	–	45
Transferred to/(from) profit or loss	–	227	–	(25)	–	–	–	–	–	202
Tax	–	(43)	–	(14)	–	–	–	–	–	(57)
At 31 March 2017	894	103	–	162	–	–	–	19	(5,165)	(3,987)
Exchange adjustments[1]	(504)	–	–	–	–	–	–	–	–	(504)
Net gains/(losses) taken to equity	–	19	–	(30)	–	–	–	–	–	(11)
Share of net gains of associates taken to equity	–	5	–	–	–	–	–	–	–	5
Transferred from profit or loss	–	(3)	–	(73)	–	–	–	–	–	(76)
Tax	–	4	–	29	–	–	–	–	–	33
At 31 March 2018 (as previously reported)	390	128	–	88	–	–	–	19	(5,165)	(4,540)
Transfer on transition to IFRS 9	–	(3)	76	(88)	34	46	7	–	–	72
At 1 April 2018 (as restated)	390	125	76	–	34	46	7	19	(5,165)	(4,468)
Exchange adjustments[1]	346	–	–	–	–	–	–	–	–	346
Net (losses)/gains taken to equity	–	(40)	(107)	–	–	2	7	–	–	(138)
Share of net gains of associates taken to equity	–	1	–	–	–	–	–	–	–	1
Transferred to profit or loss	–	–	41	–	–	–	–	–	–	41
Net losses in respect of cash flow hedging of capital expenditure	–	(13)	–	–	–	–	–	–	–	(13)
Tax	–	6	7	–	–	–	(1)	–	–	12
Cash flow hedges transferred to the statement of financial position, net of tax	–	(18)	–	–	–	–	–	–	–	(18)
At 31 March 2019	**736**	**61**	**17**	**–**	**34**	**48**	**13**	**19**	**(5,165)**	**(4,237)**

1. The exchange adjustments recorded in the translation reserve comprise a gain of £896 million (2018: loss of £1,304 million; 2017: gain of £1,364 million) relating to the translation of foreign operations offset by a loss of £550 million (2018: gain of £800 million; 2017: loss of £1,018 million) relating to borrowings, cross-currency swaps and foreign exchange forward contracts used to hedge the net investment in the non-sterling denominated subsidiaries.

The merger reserve represents the difference between the carrying value of subsidiary undertaking investments and their respective capital structures following the Lattice demerger from BG Group plc and the 1999 Lattice refinancing.

29. Net debt

Net debt represents the amount of borrowings and overdrafts less cash, current financial investments and related financing derivatives.

Funding and liquidity risk management is carried out by the treasury function under policies and guidelines approved by the Finance Committee of the Board. The Finance Committee is responsible for the regular review and monitoring of treasury activity and for the approval of specific transactions, the authority for which fall outside the delegation of authority to management.

The primary objective of the treasury function is to manage our funding and liquidity requirements. A further important objective is to manage the associated financial risks, in the form of interest rate risk and foreign exchange risk, to within pre-authorised parameters. Details of the main risks arising from our financing and commodity hedging activities can be found in the risk factors discussion starting on page 212 and in note 32 to the consolidated financial statements.

Investment of surplus funds, usually in short-term fixed deposits or placements with money market funds that invest in highly liquid instruments of high credit quality, is subject to our counterparty risk management policy.

(a) Reconciliation of net cash flow to movement in net debt

	2019 £m	2018 £m	2017 £m
(Decrease)/increase in cash and cash equivalents	**(80)**	(807)	984
(Decrease)/increase in financial investments	**(822)**	(5,953)	5,675
(Increase)/decrease in borrowings and related derivatives[1]	**(708)**	1,209	(3,715)
Net interest paid on the components of net debt[2]	**866**	808	1,955
Change in debt resulting from cash flows	**(744)**	(4,743)	4,899
Changes in fair value of financial assets and liabilities and exchange movements	**(1,648)**	2,098	(2,273)
Net interest charge on the components of net debt	**(1,076)**	(1,017)	(2,401)
Disposal of UK Gas Distribution	**–**	–	5,890
Other non-cash movements	**(27)**	(66)	(64)
Movement in net debt (net of related derivative financial instruments) in the year	**(3,495)**	(3,728)	6,051
Net debt (net of related derivative financial instruments) at start of year	**(23,002)**	(19,274)	(25,325)
Impact of transition to IFRS 9	**(32)**	–	–
Net debt (net of related derivative financial instruments) at end of year	**(26,529)**	(23,002)	(19,274)

Composition of net debt

Net debt is made up as follows:

	2019 £m	2018 £m	2017 £m
Cash, cash equivalents and financial investments	**2,233**	3,023	9,880
Borrowings and bank overdrafts	**(28,730)**	(26,625)	(28,638)
Financing derivatives[1]	**(32)**	600	(516)
	(26,529)	(23,002)	(19,274)

1. The financing derivatives balance included in net debt excludes the commodity derivatives (see note 17).
2. Excludes £23 million (2018: £27 million; 2017: £nil) cash interest from the Quadgas shareholder loan included within discontinued operations in the cash flow statement.

Notes to the consolidated financial statements
– analysis of items in the primary statements continued

29. Net debt continued

(b) Analysis of changes in net debt

	Cash and cash equivalents £m	Bank overdrafts £m	Net cash and cash equivalents £m	Financial investments £m	Borrowings £m	Financing derivatives £m	Total[1] £m
At 1 April 2016	127	(3)	124	2,998	(28,341)	(106)	(25,325)
Cash flow[2]	1,001	(17)	984	5,624	(2,196)	487	4,899
Fair value gains and losses and exchange movements	16	–	16	141	(1,527)	(903)	(2,273)
Interest income/(charges)[3]	–	–	–	53	(2,221)	(233)	(2,401)
Other non-cash movements	–	–	–	–	(294)	230	(64)
Disposal	(5)	20	15	(75)	5,941	9	5,890
At 1 April 2017	1,139	–	1,139	8,741	(28,638)	(516)	(19,274)
Cash flow[2]	(807)	–	(807)	(5,983)	2,108	(61)	(4,743)
Fair value gains and losses and exchange movements	(3)	–	(3)	(149)	1,088	1,162	2,098
Interest income/(charges)[3]	–	–	–	85	(1,117)	15	(1,017)
Other non-cash movements	–	–	–	–	(66)	–	(66)
At 31 March 2018	329	–	329	2,694	(26,625)	600	(23,002)
Impact of transition to IFRS 9	–	–	–	–	(32)	–	(32)
At 1 April 2018 (as restated)	329	–	329	2,694	(26,657)	600	(23,034)
Cash flow[2]	(80)	–	(80)	(846)	(240)	422	(744)
Fair value gains and losses and exchange movements	3	–	3	93	(733)	(1,011)	(1,648)
Interest income/(charges)[3]	–	–	–	29	(1,062)	(43)	(1,076)
Other non-cash movements	–	–	–	11	(38)	–	(27)
At 31 March 2019	**252**	**–**	**252**	**1,981**	**(28,730)**	**(32)**	**(26,529)**
Balances at 31 March 2019 comprise:							
Non-current assets	–	–	–	–	–	996	996
Current assets	252	–	252	1,981	–	56	2,289
Current liabilities	–	–	–	–	(4,472)	(282)	(4,754)
Non-current liabilities	–	–	–	–	(24,258)	(802)	(25,060)
	252	**–**	**252**	**1,981**	**(28,730)**	**(32)**	**(26,529)**

1. Includes accrued interest at 31 March 2019 of £223 million (2018: £197 million; 2017: £210 million).
2. Cash flow from financing activities relating to financing liabilities (proceeds and repayment of loans, net movement in short-term borrowings and derivatives and interest paid) includes cash outflow on non-debt-related items of £24 million (2018: £12 million; 2017: £nil) and excludes derivative cash inflow in relation to capital expenditure of £13 million (2018: £12 million; 2017: £18 million) and items relating to discontinued operations of £nil (2018: £231 million; 2017: £(1,611) million).
3. An exceptional income of £nil (2018: £3 million income; 2017: £1,313 million expense) is included in net interest charge on the components of net debt.

Notes to the consolidated financial statements – supplementary information

This section includes information that is important to enable a full understanding of our financial position, particularly areas of potential uncertainty that could affect us in the future.

We also include specific disclosures for Niagara Mohawk Power Corporation in accordance with various rules including Rule 3-10 of Regulation S-X (a US SEC requirement), as they have issued public debt securities which have been guaranteed by National Grid plc. Additional disclosures have also been included in respect of the guarantor company. These disclosures are in lieu of publishing separate financial statements for these companies (see note 36 for further information).

30. Commitments and contingencies

Commitments are those amounts that we are contractually required to pay in the future as long as the other party meets its obligations. These commitments primarily relate to operating lease rentals, energy purchase agreements and contracts for the purchase of assets which, in many cases, extend over a long period of time. We also disclose any contingencies, which include guarantees that companies have given, where we pledge assets against current obligations that will remain for a specific period.

	2019 £m	2018 £m
Future capital expenditure		
Contracted for but not provided	**1,973**	1,843
Operating lease commitments[1]		
Less than 1 year	**43**	42
In 1 to 2 years	**39**	37
In 2 to 3 years	**34**	33
In 3 to 4 years	**35**	30
In 4 to 5 years	**27**	28
More than 5 years	**123**	122
	301	292
Energy purchase commitments[2]		
Less than 1 year	**1,353**	1,237
In 1 to 2 years	**779**	700
In 2 to 3 years	**651**	563
In 3 to 4 years	**827**	449
In 4 to 5 years	**862**	410
More than 5 years	**11,237**	1,969
	15,709	5,328
Guarantees[3]		
Guarantee of sublease for US property (expires 2040)	**173**	178
Guarantees of certain obligations of Grain LNG (expire up to 2025)	**39**	46
Guarantees of certain obligations for construction of HVDC West Coast Link (expires 2019)	**139**	213
Guarantees of certain obligations of Nemo Link Limited (various expiry dates)	**19**	63
Guarantees of certain obligations of National Grid North Sea Link Limited (various expiry dates)[3]	**865**	1,009
Guarantees of certain obligations of St William Homes LLP (various expiry dates)[4]	**22**	98
Guarantees of certain obligations for construction of IFA 2 (expected expiry 2021)[3]	**505**	729
Guarantees of certain obligations of National Grid Viking Link Limited (expected expiry 2024)	**872**	–
Other guarantees and letters of credit (various expiry dates)	**341**	333
	2,975	2,669

1. Following a review during the year, the comparatives have been refined to provide consistency with the current year.
2. Energy purchase commitments relate to contractual commitments to purchase electricity or gas that are used to satisfy physical delivery requirements to our customers or for energy that we use ourselves (i.e. normal purchase, sale or usage) and hence are accounted for as ordinary purchase contracts (see note 32(f)). Details of commodity contract derivatives that do not meet the normal purchase, sale or usage criteria, and hence are accounted for as derivative contracts, are shown in note 17(b).
3. Included within total guarantees are guarantees to both joint ventures and Engineering, Procurement and Construction contractors regarding the construction of interconnectors of £470 million (2018: £739 million).
4. Includes guarantees to related parties.

The total of future minimum sublease payments expected to be received under non-cancellable sub-leases is £86 million (2018: £42 million).

Through the ordinary course of our operations, we are party to various litigation, claims and investigations. We do not expect the ultimate resolution of any of these proceedings to have a material adverse effect on our results of operations, cash flows or financial position.

Notes to the consolidated financial statements – supplementary information continued

31. Related party transactions

Related parties include joint ventures, associates, investments and key management personnel.

The following significant transactions with related parties were in the normal course of business. Amounts receivable from and payable to related parties are due on normal commercial terms:

	2019 £m	2018 £m	2017 £m
Sales: Goods and services supplied to a pension plan	**5**	3	3
Sales: Goods and services supplied to joint ventures[1]	**151**	14	78
Sales: Goods and services supplied to associates[2]	**192**	220	–
Purchases: Goods and services received from joint ventures[3]	**26**	135	168
Purchases: Goods and services received from associates[3]	**141**	160	169
Receivable from joint ventures[4]	**584**	160	64
Receivable from associates[4]	**368**	376	457
Payable to joint ventures[5]	**8**	–	84
Payable to associates	**12**	17	27
Interest income from joint ventures	**5**	4	–
Interest income from associates	**23**	27	–
Dividends received from joint ventures[6]	**30**	43	75
Dividends received from associates[7]	**171**	170	24

1. During the year, £139 million (2018: £5 million) of property sites were sold to joint venture St William Homes LLP.
2. Sales in the year relate to transactions with Quadgas. Within this is other income of £52 million (2018: £54 million) relating to a Transitional Service Agreement following the sale of the UK Gas Distribution business to Quadgas.
3. During the year, the Group received goods and services from a number of US associates, both for the transportation of gas and for pipeline services in the US. Additionally, in 2018, goods and services were received from UK joint ventures for the construction of an electricity transmission link in the UK.
4. Amounts receivable from associates includes a loan receivable balance from Quadgas of £352 million (2018: £352 million) which is classified as held for sale as at 31 March 2019, a loan receivable balance of £258 million (2018: £130 million) from Nemo Link Limited (a joint venture) and £325 million (2018: £24 million) in relation to St William Homes LLP (a joint venture).
5. In previous years the amounts payable to joint ventures include deposits received for National Grid property sites from St William Homes LLP which have been settled during the year.
6. Dividends in respect of joint ventures were received from BritNed Development Limited.
7. Includes £133 million (2018: £144 million) of dividend income from Quadgas.

Details of investments in principal subsidiary undertakings, joint ventures and associates are disclosed in note 34, and information relating to pension fund arrangements is disclosed in note 25. For details of Directors' and key management remuneration, refer to the Directors' Remuneration Report on pages 69 – 90 and note 4(c).

32. Financial risk management

Our activities expose us to a variety of financial risks including credit risk, liquidity risk, capital risk, currency risk, interest rate risk, inflation risk and commodity price risk. Our risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential volatility of financial performance from these risks. We use financial instruments, including derivative financial instruments, to manage these risks.

Risk management related to financing activities is carried out by a central treasury department under policies approved by the Finance Committee of the Board. The objective of the treasury department is to manage funding and liquidity requirements, including managing associated financial risks, to within acceptable boundaries. The Finance Committee provides written principles for overall risk management, as well as written policies covering specific areas such as foreign exchange risk, interest rate risk, credit risk, liquidity risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity. The Finance Committee has delegated authority to administer the commodity price risk policy and credit policy for US-based commodity transactions to the Energy Procurement Risk Management Committee and the National Grid USA Board of Directors. Details of key activities in the current year are set out in the Finance Committee report, on page 63.

We have exposure to the following risks, which are described in more detail below:

- credit risk;
- liquidity risk;
- currency risk;
- interest rate risk;
- commodity price risk; and
- capital risk.

Where appropriate, derivatives and other financial instruments used for hedging currency and interest rate risk exposures are formally designated as fair value, cash flow or net investment hedges as defined in IFRS 9. Hedge accounting allows the timing of the profit or loss impact of qualifying hedging instruments to be recognised in the same reporting period as the corresponding impact of hedged exposures. To qualify for hedge accounting, documentation is prepared specifying the risk management objective and strategy, the component transactions and methodology used for measurement of effectiveness.

32. Financial risk management continued

Hedge accounting relationships are designated in line with risk management activities further described below. Categories designated at National Grid are as follows:

- currency risk arising from our forecasted foreign currency transactions (capital expenditure or revenues) is designated in cash flow hedges;
- currency risk arising from our net investments in foreign operations is designated in net investment hedges; and
- currency and interest rate risk arising from borrowings are designated in cash flow or fair value hedges.

Critical terms of hedging instruments and hedged items are transacted to match on a 1:1 ratio by notional values. Hedge ineffectiveness can nonetheless arise from inherent differences between derivatives and non-derivative instruments and other market factors including credit, correlations, supply and demand, and market volatilities. Ineffectiveness is recognised in the remeasurements component of profit or loss. Hedge accounting is discontinued when a hedging relationship no longer qualifies for hedge accounting.

The Group adopted IFRS 9 with effect from 1 April 2018. The comparatives are not required to be restated and are accounted for in accordance with IAS 39. As a result of adoption, certain hedging instrument components are now treated separately as costs of hedging. Cost of hedging gains and losses are deferred in a newly established component of other equity reserves and released systematically into profit or loss to correspond with the timing of hedged exposures. The impact of adopting IFRS 9 is described in note 37.

2018

Under IAS 39, hedging instruments were designated for hedge accounting in their entirety or, where qualifying forward points were excluded from hedging relationships, unrealised gains and losses on excluded components were recognised in the income statement.

Refer to sections (c) currency risk and (d) interest rate risk below for further details about hedge accounting.

(a) Credit risk

We are exposed to the risk of loss resulting from counterparties' default on their commitments including failure to pay or make a delivery on a contract. This risk is inherent in our commercial business activities. We are exposed to credit risk on our derivative financial instruments, deposits with banks and financial institutions, as well as credit exposures to wholesale and retail customers, primarily trade receivables and committed transactions.

Treasury credit risk

Counterparty risk arises from the investment of surplus funds and from the use of derivative financial instruments. As at 31 March 2019, the following limits were in place for investments held with banks and financial institutions:

	Maximum limit £m	Long-term limit £m
Triple 'A' G7 sovereign entities (AAA)	1,853	927
Triple 'A' vehicles (AAA)	500	–
Triple 'A' range institutions and non-G7 sovereign entities (AAA)	1,011	506
Double 'A+' G7 sovereign entities (AA+)	1,685	843
Double 'A' range institutions (AA)	674 to 843	337 to 421
Single 'A' range institutions (A)	236 to 337	118 to 169

The maximum limit applies to all transactions, including long-term transactions. The long-term limit applies to transactions which mature in more than 12 months' time.

As at 31 March 2019 and 2018, we had a number of exposures to individual counterparties. In accordance with our treasury policies, counterparty credit exposure utilisations are monitored daily against the counterparty credit limits. Counterparty credit ratings and market conditions are reviewed continually with limits being revised and utilisation adjusted, if appropriate. Management does not expect any significant losses from non-performance by these counterparties.

Commodity credit risk

The credit policy for US-based commodity transactions is owned by the Finance Committee to the Board, which establishes controls and procedures to determine, monitor and minimise the credit exposure to counterparties.

Wholesale and retail credit risk

Our principal commercial exposure in the UK is governed by the credit rules within the regulated codes: Uniform Network Code and Connection and Use of System Code. These set out the level of credit relative to the RAV for each credit rating. In the US, we are required to supply electricity and gas under state regulations. Our credit policies and practices are designed to limit credit exposure by collecting security deposits prior to providing utility services, or after utility service has commenced if certain applicable regulatory requirements are met. Collection activities are managed on a daily basis. Sales to retail customers are usually settled in cash, cheques, electronic bank payments or by using major credit cards. We are committed to measuring, monitoring, minimising and recording counterparty credit risk in our wholesale business. The utilisation of credit limits is regularly monitored and collateral is collected against these accounts when necessary. Management does not expect any significant losses of receivables that have not been provided for as shown in note 19.

Notes to the consolidated financial statements – supplementary information continued

32. Financial risk management continued

(a) Credit risk continued

Offsetting financial assets and liabilities

The following tables set out our financial assets and liabilities which are subject to offset and to enforceable master netting arrangements or similar agreements. The tables show the amounts which are offset and reported net in the statement of financial position. Amounts which cannot be offset under IFRS, but which could be settled net under terms of master netting arrangements if certain conditions arise, and with collateral received or pledged, are shown to present National Grid's net exposure.

Financial assets and liabilities on different transactions are only reported net if the transactions are with the same counterparty, a currently enforceable legal right of offset exists, and the cash flows are intended to be settled on a net basis.

Amounts which do not meet the criteria for offsetting on the statement of financial position, but could be settled net in certain circumstances, principally relate to derivative transactions under ISDA agreements where each party has the option to settle amounts on a net basis in the event of default of the other party.

Commodity contract derivatives that have not been offset on the balance sheet may be settled net in certain circumstances under ISDA or North American Energy Standards Board (NAESB) agreements.

For bank account balances and bank overdrafts, the 'Gross amounts offset' under cash pooling arrangements is £19 million as at 31 March 2019 (2018: £34 million). Our UK bank accounts for National Grid subsidiaries participate in GBP, EUR and USD Composite Accounting System overdraft facilities subject to offsetting gross and net overdraft limits. In the US, no offsetting arrangements exist, and cash transactions are settled through Service Company bank accounts with subsequent intercompany payables and receivables reported by subsidiaries with the Service Company.

The gross amounts offset for trade payables and receivables, which are subject to general terms and conditions, are insignificant.

				Related amounts available to be offset but not offset in statement of financial position		
At 31 March 2019	**Gross carrying amounts £m**	**Gross amounts offset £m**	**Net amount presented in statement of financial position £m**	**Financial instruments £m**	**Cash collateral received/ pledged £m**	**Net amount £m**
Assets						
Financing derivatives	**1,052**	**–**	**1,052**	**(299)**	**(551)**	**202**
Commodity contract derivatives	**101**	**–**	**101**	**29**	**–**	**130**
	1,153	**–**	**1,153**	**(270)**	**(551)**	**332**
Liabilities						
Financing derivatives	**(1,084)**	**–**	**(1,084)**	**299**	**615**	**(170)**
Commodity contract derivatives	**(99)**	**–**	**(99)**	**(29)**	**–**	**(128)**
	(1,183)	**–**	**(1,183)**	**270**	**615**	**(298)**
	(30)	**–**	**(30)**	**–**	**64**	**34**

				Related amounts available to be offset but not offset in statement of financial position		
At 31 March 2018	Gross carrying amounts £m	Gross amounts offset £m	Net amount presented in statement of financial position £m	Financial instruments £m	Cash collateral received/ pledged £m	Net amount £m
Assets						
Financing derivatives	1,545	–	1,545	(523)	(772)	250
Commodity contract derivatives	69	–	69	(16)	–	53
Further acquisition agreement derivative[1]	110	–	110	–	–	110
	1,724	–	1,724	(539)	(772)	413
Liabilities						
Financing derivatives	(945)	–	(945)	523	326	(96)
Commodity contract derivatives	(116)	–	(116)	16	7	(93)
	(1,061)	–	(1,061)	539	333	(189)
	663	–	663	–	(439)	224

1. The Group is party to the Further Acquisition Agreement (FAA) and Remaining Acquisition Agreement (RAA) which contain put and call options over 14% and 25% respectively, of the equity and loan balances it holds in Cadent (through its investment in Quadgas). These are classified within the disposal group as at 31 March 2019 (see note 10).

32. Financial risk management continued

(b) Liquidity risk

Our policy is to determine our liquidity requirements by the use of both short-term and long-term cash flow forecasts. These forecasts are supplemented by a financial headroom analysis which is used to assess funding requirements for at least a 24-month period and maintain adequate liquidity for a continuous 12-month period.

We believe our contractual obligations, including those shown in commitments and contingencies in note 30, can be met from existing cash and investments, operating cash flows and other financings that we reasonably expect to be able to secure in the future, together with the use of committed facilities if required.

Our debt agreements and banking facilities contain covenants, including those relating to the periodic and timely provision of financial information by the issuing entity 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.

The following is a maturity profile of our financial liabilities and derivatives as at the reporting date:

At 31 March 2019	Less than 1 year £m	1 to 2 years £m	2 to 3 years £m	More than 3 years £m	Total £m
Non-derivative financial liabilities					
Borrowings, excluding finance lease liabilities	**(4,129)**	**(2,348)**	**(1,998)**	**(19,673)**	**(28,148)**
Interest payments on borrowings[1]	**(800)**	**(733)**	**(721)**	**(13,465)**	**(15,719)**
Finance lease liabilities	**(72)**	**(63)**	**(52)**	**(123)**	**(310)**
Other non-interest-bearing liabilities	**(3,306)**	**(340)**	**–**	**–**	**(3,646)**
Derivative financial liabilities					
Derivative contracts – receipts[2]	**3,045**	**1,703**	**163**	**2,560**	**7,471**
Derivative contracts – payments[2]	**(3,421)**	**(2,029)**	**(223)**	**(3,276)**	**(8,949)**
Commodity contract derivatives	**(73)**	**(19)**	**(2)**	**(1)**	**(95)**
Derivative financial assets					
Derivative contracts – receipts[2]	**1,928**	**561**	**863**	**1,112**	**4,464**
Derivative contracts – payments[2]	**(1,251)**	**(459)**	**(783)**	**(875)**	**(3,368)**
	(8,079)	**(3,727)**	**(2,753)**	**(33,741)**	**(48,300)**

At 31 March 2018[3]	Less than 1 year £m	1 to 2 years £m	2 to 3 years £m	More than 3 years £m	Total £m
Non-derivative financial liabilities					
Borrowings, excluding finance lease liabilities	(4,099)	(1,642)	(2,325)	(18,023)	(26,089)
Interest payments on borrowings[1]	(730)	(692)	(629)	(12,897)	(14,948)
Finance lease liabilities	(60)	(60)	(45)	(148)	(313)
Other non-interest-bearing liabilities	(2,840)	(359)	–	–	(3,199)
Derivative financial liabilities					
Derivative contracts – receipts[2]	1,111	424	441	268	2,244
Derivative contracts – payments[2]	(1,468)	(608)	(547)	(704)	(3,327)
Commodity contract derivatives	(80)	(33)	(26)	1	(138)
Derivative financial assets					
Derivative contracts – receipts[2]	6,536	2,225	1,726	3,134	13,621
Derivative contracts – payments[2]	(6,000)	(1,703)	(1,678)	(2,977)	(12,358)
	(7,630)	(2,448)	(3,083)	(31,346)	(44,507)

1. The interest on borrowings is calculated based on borrowings held at 31 March without taking account of future issues. Floating rate interest is estimated using a forward interest rate curve as at 31 March. Payments are included on the basis of the earliest date on which the Company can be required to settle.
2. The financial derivative payments and receipts include the gross undiscounted cash flows for interest rate and cross currency derivatives. The cash flows for these derivatives are presented as gross payments and receipts where the cash flows are not net settled either due to timing or currency.
3. The comparatives have been refined to provide consistency with the current period.

Notes to the consolidated financial statements – supplementary information continued

32. Financial risk management continued

(c) Currency risk

National Grid operates internationally with mainly the pound sterling as the functional currency for the UK companies and the US dollar as that of the US businesses. Currency risk arises from three major areas: funding activities, capital investment and related revenues, and holdings in foreign operations. This risk is managed using financial instruments including derivatives as approved by policy, typically cross-currency interest rate swaps, foreign exchange swaps and forwards.

Funding activities – our policy is to borrow in the most advantageous market available. Foreign currency funding gives rise to risk of volatility in the amount of functional currency cash to be repaid. This risk is reduced by swapping principal and interest back into the functional currency of the issuer. All foreign currency debt and transactions are hedged except where they provide a natural offset to assets elsewhere in the Group.

Capital investment and related revenues – capital projects often incur costs or generate revenues in a foreign currency, most often euro transactions done by the UK business. Our policy for managing foreign exchange transaction risk is to hedge contractually committed foreign currency cash flows over a prescribed minimum size, typically by buying euro forwards to hedge future expenditure, and selling euro forwards to hedge future revenues. For hedges of forecast cash flows our policy is to hedge a proportion of highly probable cash flows.

Holdings in foreign operations – we are exposed to fluctuations on the translation into pounds sterling of our foreign operations. The policy for managing this translation risk is to issue foreign currency debt or to replicate foreign debt using derivatives that pay cash flows in the currency of the foreign operation. The primary managed exposure arises from dollar denominated assets and liabilities held by our US operations, with a smaller euro exposure in respect of joint venture investments.

During 2019 and 2018, derivative financial instruments were used to manage foreign currency risk as follows:

	2019					2018				
	Sterling £m	**Euro £m**	**Dollar £m**	**Other £m**	**Total £m**	Sterling £m	Euro £m	Dollar £m	Other £m	Total £m
Cash and cash equivalents	**97**	**2**	**153**	**–**	**252**	294	2	33	–	329
Financial investments	**965**	**–**	**1,016**	**–**	**1,981**	1,471	69	1,125	29	2,694
Borrowings	**(10,591)**	**(4,787)**	**(12,126)**	**(1,226)**	**(28,730)**	(10,912)	(3,794)	(11,068)	(851)	(26,625)
Pre-derivative position	**(9,529)**	**(4,785)**	**(10,957)**	**(1,226)**	**(26,497)**	(9,147)	(3,723)	(9,910)	(822)	(23,602)
Derivative effect	**(1,055)**	**4,803**	**(5,245)**	**1,465**	**(32)**	3,748	3,793	(7,992)	1,051	600
Net debt position	**(10,584)**	**18**	**(16,202)**	**239**	**(26,529)**	(5,399)	70	(17,902)	229	(23,002)

The exposure to dollars largely relates to our net investment hedge activities; exposure to euros largely relates to hedges for our future non-sterling capital expenditure.

The currency exposure on other financial instruments is as follows:

	2019					2018				
	Sterling £m	**Euro £m**	**Dollar £m**	**Other £m**	**Total £m**	Sterling £m	Euro £m	Dollar £m	Other £m	Total £m
Trade and other receivables	**398**	**–**	**1,635**	**–**	**2,033**	253	–	1,528	–	1,781
Trade and other payables	**(1,221)**	**–**	**(2,085)**	**–**	**(3,306)**	(1,124)	–	(1,793)	–	(2,917)
Other non-current liabilities	**(93)**	**–**	**(247)**	**–**	**(340)**	(144)	–	(254)	–	(398)

The carrying amounts of other financial instruments are denominated in the above currencies, which in most instances are the functional currency of the respective subsidiaries. Our exposure to dollars is due to activities in our US subsidiaries. We do not have any other significant exposure to currency risk on these balances.

Hedge accounting for currency risk

Where available, derivatives transacted for hedging are designated for hedge accounting. Economic offset is qualitatively determined because the critical terms (currency and volume) of the hedging instrument match the hedged exposure. If a forecast transaction was no longer expected to occur, the cumulative gain or loss previously reported in equity would be transferred to the income statement. This has not occurred in the current or comparative years.

Cash flow hedging of currency risk of capital expenditure and revenues is designated as hedging the exposure to movements in the spot translation rates only; the timing of forecasted transactions is not designated as a hedged risk. Gains and losses on hedging instruments arising from forward points and foreign currency basis spreads are excluded from designation and are recognised immediately in profit or loss, along with any hedge ineffectiveness. On recognition of the hedged purchase or sale in the financial statements, the associated hedge gains and losses, deferred in the cash flow hedge reserve in other equity reserves, are transferred out of reserves and included with the recognition of the underlying transaction. Where a non-financial asset or a non-financial liability results from a forecast transaction or firm commitment being hedged, the amounts deferred in reserves are included directly in the initial measurement of that asset or liability.

Net investment hedging is also designated as hedging the exposure to movements in spot translation rates only: spot-related gains and losses on hedging instruments are presented in the cumulative translation reserve within other equity reserves to offset gains or losses on translation of the hedged balance sheet exposure. Any ineffectiveness is recognised immediately in the income statement. Gains and losses arising from forward points and foreign currency basis spreads are excluded from designation and are treated as a cost of hedging, deferred initially in other equity reserves and released into profit or loss over the life of the hedging relationship. Amounts deferred in the cumulative translation reserve with respect to net investment hedges are subsequently recognised in the income statement in the event of disposal of the overseas operations concerned. Any remaining amounts deferred in the cost of hedging reserve are also released to the income statement.

Hedges of foreign currency funding are designated as cash flow hedges or fair value hedges of forward exchange risk (hedging both currency and interest rate risk together, where applicable). Hedge accounting for funding is described further in the interest rate risk section below.

32. Financial risk management continued

(d) Interest rate risk

National Grid's interest rate risk arises from our long-term borrowings. Our interest rate risk management policy is to seek to minimise total financing costs (being interest costs and changes in the market value of debt). Hedging instruments principally consist of interest rate and cross-currency swaps that are used to translate foreign currency debt into functional currency and to adjust the proportion of fixed-rate and floating-rate in the borrowings portfolio to within a range set by the Finance Committee of the Board. The benchmark interest rates hedged are currently based on Libor.

We also consider inflation risk and hold some inflation-linked borrowings. We believe that these provide a partial economic offset to the inflation risk associated with our UK inflation linked revenues.

The table in note 21 sets out the carrying amount, by contractual maturity, of borrowings that are exposed to interest rate risk before taking into account interest rate swaps.

During 2019 and 2018, net debt was managed using derivative financial instruments to hedge interest rate risk as follows:

	2019					2018				
	Fixed rate £m	Floating rate £m	Inflation linked £m	Other[1] £m	Total £m	Fixed rate £m	Floating rate £m	Inflation linked £m	Other[1] £m	Total £m
Cash and cash equivalents	59	104	–	89	252	–	302	–	27	329
Financial investments	6	1,944	–	31	1,981	31	2,625	–	38	2,694
Borrowings	(19,043)	(3,045)	(6,642)	–	(28,730)	(16,144)	(3,191)	(7,290)	–	(26,625)
Pre-derivative position	(18,978)	(997)	(6,642)	120	(26,497)	(16,113)	(264)	(7,290)	65	(23,602)
Derivative effect	1,740	(1,559)	(213)	–	(32)	1,735	(1,237)	102	–	600
Net debt position	(17,238)	(2,556)	(6,855)	120	(26,529)	(14,378)	(1,501)	(7,188)	65	(23,002)

1. Represents financial instruments which are not directly affected by interest rate risk, such as investments in equity or other similar financial instruments.

Hedge accounting for interest rate risk

Borrowings paying variable or floating-rates expose National Grid to cash flow interest rate risk, partially offset by cash held at variable rates. Where a hedging instrument results in paying a fixed-rate, it is designated as a cash flow hedge because it has reduced the cash flow volatility of the hedged borrowing. Changes in the fair value of the derivative are initially recognised in other comprehensive income as gains or losses in the cash flow hedge reserve, with any ineffective portion recognised immediately in the income statement.

Borrowings paying fixed-rates expose National Grid to fair value interest rate risk. Where the hedging instrument pays a floating-rate, it is designated as a fair value hedge because it has reduced the fair value volatility of the borrowing. Changes in the fair value of the derivative and changes in the fair value of the hedged item in relation to the risk being hedged are both adjusted on the balance sheet and offset in the income statement to the extent the fair value hedge is effective, with the residual difference remaining as ineffectiveness.

Both types of hedges are designated as hedging the currency and interest rate risk arising from changes in forward points. Amounts accumulated in the cash flow hedge reserve (cash flow hedges only) and the deferred cost of hedging reserve (both cash flow and fair value hedges) are reclassified from reserves to the income statement on a systematic basis as hedged interest expense is recognised. Adjustments made to the carrying value of hedged items in fair value hedges are similarly released to the income statement to match the timing of the hedged interest expense.

When hedge accounting is discontinued, any remaining cumulative hedge accounting balances continue to be released to the income statement to match the impact of outstanding hedged items. Any remaining amounts deferred in the cost of hedging reserve are released immediately to the income statement.

Notes to the consolidated financial statements – supplementary information continued

32. Financial risk management continued

(e) Hedge accounting

In accordance with the requirements of IFRS 9, certain additional information about hedge accounting is disaggregated by risk type and hedge designation type in the tables below:

	Fair value hedges of foreign currency and interest rate risk £m	Cash flow hedges of foreign currency and interest rate risk £m	Cash flow hedges of foreign currency risk £m	Net investment hedges £m
Consolidated statement of comprehensive income				
Net losses in respect of:				
Cash flow hedges	–	(40)	(12)	–
Cost of hedging	(6)	(12)	–	(90)
Transferred to profit or loss in respect of:				
Cash flow hedges	–	(1)	–	–
Cost of hedging	3	–	–	39
Consolidated statement of changes in equity				
Other equity reserves – cost of hedging balances	(4)	–	–	32
Consolidated statement of financial position				
Derivatives – carrying value of hedging instruments[1]				
Assets – current	17	–	9	–
Assets – non-current	168	78	23	–
Liabilities – current	(9)	(28)	(3)	(43)
Liabilities – non-current	(25)	(134)	(4)	(249)
Profiles of the significant timing, price and rate information of hedging instruments				
Maturity range	Nov 2019 – May 2038	Aug 2019 – Feb 2039	Apr 2019 – Dec 2023	Mar 2020 – Jun 2025
Spot foreign exchange range:				
GBP:USD	1.64 – 1.65	1.52 – 1.66	1.29 – 1.41	1.49
GBP:EUR	1.19 – 1.24	1.14 – 1.24	1.07 – 1.32	1.15
EUR:USD	1.13 – 1.16	1.13 – 1.14	n/a	n/a
Interest rate range:				
GBP	Libor +30bps/+561bps	1.795% – 5.850%	n/a	n/a
USD	Libor -44bps/+115bps	1.103% – 3.864%	n/a	n/a

1. The use of derivatives may entail a derivative transaction qualifying for more than one hedge type designation under IFRS 9. Therefore, the derivative amounts in the table above are grossed up by hedge type, whereas they are presented net at an instrument level in the statement of financial position.

32. Financial risk management continued

(e) Hedge accounting continued

The following tables show the effects of hedge accounting on financial position and year-to-date performance for each type of hedge:

(i) Fair value hedges of foreign currency and interest rate risk on recognised borrowings as at 31 March 2019:

		Balance of fair value hedge adjustments in borrowings		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Foreign currency and interest rate risk on borrowings[1]	(1,707)	11	(117)	11	(6)	5

1. The carrying value of the hedged borrowings is £1,810 million, of which £202 million is current and £1,608 million is non-current.

(ii) Cash flow hedges of foreign currency and interest rate risk as at 31 March 2019:

		Balance in cash flow hedge reserve		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Foreign currency and interest rate risk on borrowings	(3,804)	(17)	51	39	(39)	–
Foreign currency risk on forecasted cash flows	(697)	47	–	12	(12)	–

(iii) Net investment hedges of foreign currency risk as at 31 March 2019:

		Balance in translation reserve		Change in value used for calculating ineffectiveness		
Hedge type	Hedging instrument notional £m	Continuing hedges £m	Discontinued hedges £m	Hedged item £m	Hedging instrument £m	Hedge ineffectiveness £m
Currency risk on foreign operations	(2,974)	(329)	(2,502)	550	(550)	–

(f) Commodity price risk

We purchase electricity and gas to supply our customers in the US and to meet our own energy needs. Substantially all our costs of purchasing electricity and gas for supply to customers are recoverable at an amount equal to cost. The timing of recovery of these costs can vary between financial periods leading to an under- or over-recovery within any particular year that can lead to large fluctuations in the income statement. We follow approved policies to manage price and supply risks for our commodity activities.

Our energy procurement risk management policy and delegations of authority govern our US commodity trading activities for energy transactions. The purpose of this policy is to ensure we transact within pre-defined risk parameters and only in the physical and financial markets where we or our customers have a physical market requirement. In addition, state regulators require National Grid to manage commodity risk and cost volatility prudently through diversified pricing strategies. In some jurisdictions we are required to file a plan outlining our strategy to be approved by regulators. In certain cases we might receive guidance with regard to specific hedging limits.

Energy purchase contracts for the forward purchase of electricity or gas that are used to satisfy physical delivery requirements to customers, or for energy that the Group uses itself, meet the expected purchase or usage requirements of IAS 39 and IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. Disclosure of commitments under such contracts is made in note 30.

US states have introduced a variety of legislative requirements with the aim of increasing the proportion of our electricity that is derived from renewable or other forms of clean energy. Annual compliance filings regarding the level of Renewable Energy Certificates (and other similar environmental certificates) are required by the relevant department of utilities. In response to the legislative requirements, National Grid has entered into long-term, typically fixed-price, energy supply contracts to purchase both renewable energy and environmental certificates. We are entitled to recover all costs incurred under these contracts through customer billing.

Under IFRS, where these supply contracts are not accounted for as finance leases, they are considered to comprise two components, being a forward purchase of power at spot prices, and a forward purchase of environmental certificates at a variable price (being the contract price less the spot power price). With respect to our current contracts, neither of these components meets the requirement to be accounted for as a derivative. The environmental certificates are currently required for compliance purposes, and at present there are no liquid markets for these attributes. Accordingly, this component meets the expected purchase or usage exemption of IFRS 9/IAS 39. We expect to enter into an increasing number of these contracts, in order to meet our compliance requirements in the short to medium term. It is possible that in future, if and when liquid markets develop, and to the extent that we are in receipt of environmental certificates in excess of our required levels, this exemption may cease to apply and we may be required to account for forward purchase commitments for environmental certificates as derivatives at fair value through profit and loss.

Notes to the consolidated financial statements – supplementary information continued

32. Financial risk management continued

(g) Fair value analysis

Included in the statement of financial position are financial instruments which are measured at fair value. These fair values can be categorised into hierarchy levels that are representative of the inputs used in measuring the fair value. The best evidence of fair value is a quoted price in an actively traded market. In the event that the market for a financial instrument is not active, a valuation technique is used.

	2019				2018			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Assets								
Available-for-sale investments[1]	–	–	–	–	2,406	310	5	2,721
Investments held at FVTPL[1]	1,311	–	62	1,373	–	–	–	–
Investments held at FVOCI[1]	93	343	–	436	–	–	–	–
Investments in associates[2]	–	–	90	90	–	–	79	79
Financing derivatives	–	1,050	2	1,052	–	1,544	1	1,545
Commodity contract derivatives	–	33	68	101	–	8	61	69
Further Acquisition Agreement derivative[3]	–	–	–	–	–	–	110	110
	1,404	1,426	222	3,052	2,406	1,862	256	4,524
Liabilities								
Financing derivatives	–	(868)	(216)	(1,084)	–	(725)	(220)	(945)
Commodity contract derivatives	–	(32)	(67)	(99)	–	(54)	(62)	(116)
Liability held at fair value[4]	(667)	–	–	(667)	–	–	–	–
	(667)	(900)	(283)	(1,850)	–	(779)	(282)	(1,061)
	737	526	(61)	1,202	2,406	1,083	(26)	3,463

1. The available-for-sale investments have been reclassified, with the adoption of IFRS 9 (see notes 15 and 37).
2. Our Level 3 investments include investments relating to Sunrun Neptune 2016 LLC accounted for at fair value.
3. The Group is party to the Further Acquisition Agreement (FAA) and Remaining Acquisition Agreement (RAA) which contain put and call options over the equity and loan balances it holds in Cadent (through its investment in Quadgas). These are classified within the disposal group as at 31 March 2019 (see note 10).
4. On adoption of IFRS 9 the Group elected to change the measurement basis to fair value through profit and loss (see notes 21 and 37).

Level 1: Financial instruments with quoted prices for identical instruments in active markets.

Level 2: Financial instruments with quoted prices for similar instruments in active markets or quoted prices for identical or similar instruments in inactive markets, and financial instruments valued using models where all significant inputs are based directly or indirectly on observable market data.

Level 3: Financial instruments valued using valuation techniques where one or more significant inputs are based on unobservable market data.

Our Level 1 financial investments and liabilities held at fair value are valued using quoted prices from liquid markets.

Our Level 2 financial investments held at fair value are valued using quoted prices for similar instruments in active markets, or quoted prices for identical or similar instruments in inactive markets. Alternatively, they are valued using models where all significant inputs are based directly or indirectly on observable market data.

Our Level 2 derivative financial instruments include cross-currency, interest rate and foreign exchange derivatives. We value these derivatives by discounting all future cash flows by externally sourced market yield curves at the reporting date, taking into account the credit quality of both parties. These derivatives can be priced using liquidly traded interest rate curves and foreign exchange rates; therefore we classify our vanilla trades as Level 2 under the IFRS 13 framework.

Our Level 2 commodity derivatives include over-the-counter gas and power swaps as well as forward physical gas deals. We value our contracts based on market data obtained from the New York Mercantile Exchange (NYMEX) and the Intercontinental Exchange (ICE) where monthly prices are available. We discount based on externally sourced market yield curves at the reporting date, taking into account the credit quality of both parties and liquidity in the market. Our commodity contracts can be priced using liquidly traded swaps; therefore we classify our vanilla trades as Level 2 under the IFRS 13 framework.

Our Level 3 derivative financial instruments include cross-currency swaps, inflation linked swaps and equity options, where the market is illiquid. In valuing these instruments we use in-house valuation models and obtain external valuations to support each reported fair value.

Our Level 3 commodity contract derivatives primarily consist of our forward purchases of electricity and gas where pricing inputs are unobservable, as well as other complex transactions. Complex transactions can introduce the need for internally developed models based on reasonable assumptions. Industry-standard valuation techniques such as the Black-Scholes pricing model and Monte Carlo simulation are used for valuing such instruments. Level 3 is also applied in cases when optionality is present or where an extrapolated forward curve is considered unobservable. We consider forward curves to be unobservable if observed market transactions differ from the curve by more than 5%.

Our Level 3 investments include investments in associates relating to Sunrun Neptune Investor 2016 LLC, accounted for at fair value (see note 16), and further equity investments accounted for at fair value through profit and loss. These equity holdings are part of our corporate venture capital portfolio held by National Grid Partners and comprise a series of small minority interest unquoted investments where prices or valuation inputs are unobservable. These investments are new this year and as such the valuation is based on the latest transaction price, being the price we paid for the investments.

32. Financial risk management continued

(g) Fair value analysis continued

The changes in value of our Level 3 financial instruments are as follows:

	Financing derivatives		Commodity contract derivatives		Other[3,4]		Total	
	2019 £m	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m
At 1 April	**(219)**	(465)	**(1)**	(16)	**194**	46	**(26)**	(435)
Net gains/(losses) for the year[1,2]	**4**	15	**(16)**	8	**15**	110	**3**	133
Purchases	**–**	–	**44**	27	**57**	41	**101**	68
Settlements	**1**	231	**(26)**	(20)	**(4)**	(3)	**(29)**	208
Reclassification to held for sale[3]	**–**	–	**–**	–	**(110)**	–	**(110)**	–
At 31 March	**(214)**	(219)	**1**	(1)	**152**	194	**(61)**	(26)

1. Gain of £4 million (2018: £15 million gain) is attributable to derivative financial instruments held at the end of the reporting period and has been recognised in finance costs in the income statement.
2. Loss of £21 million (2018: £35 million gain) is attributable to commodity contract derivative financial instruments held at the end of the reporting period.
3. The Group is party to the Further Acquisition Agreement (FAA) and Remaining Acquisition Agreement (RAA) which contain put and call options over 14% and 25% respectively, of the equity and loan balances it holds in Cadent (through its investment in Quadgas). These were classified to held for sale as at 31 March 2019 (see note 10). The fair value was £110 million as at 31 March 2018.
4. Other comprises our investments in Sunrun Neptune 2016 LLC and the investments made by the National Grid Partners accounted for at fair value through profit and loss.

The impacts on a post-tax basis of reasonably possible changes in significant Level 3 assumptions are as follows:

	Financing derivatives		Commodity contract derivatives		Other[3]	
	2019 £m	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m
10% increase in commodity prices[1]	**–**	–	**(1)**	(1)	**–**	–
10% decrease in commodity prices[1]	**–**	–	**2**	3	**–**	–
+10% market area price change	**–**	–	**(10)**	(6)	**–**	–
-10% market area price change	**–**	–	**10**	5	**–**	–
+20 basis points change in Limited Price Inflation (LPI) market curve[2]	**(88)**	(84)	**–**	–	**–**	–
-20 basis points change in LPI market curve[2]	**83**	82	**–**	–	**–**	–
+50 basis points change in discount rate	**–**	–	**–**	–	**(3)**	(5)
-50 basis points change in discount rate	**–**	–	**–**	–	**3**	6

1. Level 3 commodity price sensitivity is included within the sensitivity analysis disclosed in note 35.
2. A reasonably possible change in assumption of other Level 3 derivative financial instruments is unlikely to result in a material change in fair values.
3. The investments acquired in the period were on market terms, and sensitivity is considered insignificant at 31 March 2019.

The impacts disclosed above were considered on a contract-by-contract basis with the most significant unobservable inputs identified.

Notes to the consolidated financial statements
– supplementary information continued

32. Financial risk management continued

(h) Capital risk management

The capital structure of the Group consists of shareholders' equity, as disclosed in the consolidated statement of changes in equity, and net debt (note 29). National Grid's objectives when managing capital are: to safeguard our ability to continue as a going concern; to remain within regulatory constraints of our regulated operating companies; and to maintain an efficient mix of debt and equity funding thus achieving an optimal capital structure and cost of capital. We regularly review and manage the capital structure as appropriate in order to achieve these objectives.

Maintaining appropriate credit ratings for our operating and holding companies is an important aspect of our capital risk management strategy and balance sheet efficiency. We monitor our balance sheet efficiency using several metrics including retained cash flow/net debt (RCF), regulatory gearing and interest cover. For the year ended 31 March 2019, these metrics for the Group were 9.4% (2018: 9.7%), 66% (2018: 64%) and 4.4 (2018: 4.4), respectively – see pages 26 and 229. We believe these are consistent with the current credit ratings for National Grid plc in respect of the main companies of the Group, based on guidance from the rating agencies.

We monitor the RAV gearing within NGET and the regulated transmission businesses within NGG. This is calculated as net debt expressed as a percentage of RAV, and indicates the level of debt employed to fund our UK regulated businesses. It is compared with the level of RAV gearing indicated by Ofgem as being appropriate for these businesses, at around 60% to 62.5%. We also monitor net debt as a percentage of rate base for our US operating companies, comparing this with the allowed rate base gearing inherent within each of our agreed rate plans, typically around 50%.

The majority of our regulated operating companies in the US and the UK are subject to certain restrictions on the payment of dividends by administrative order, contract and/or licence. The types of restrictions that a company may have that would prevent a dividend being declared or paid unless they are met include:

- dividends must be approved in advance by the relevant US state regulatory commission;
- the subsidiary must have at least two recognised rating agency credit ratings of at least investment grade;
- dividends must be limited to cumulative retained earnings, including pre-acquisition retained earnings;
- the securities of National Grid plc must maintain an investment grade credit rating, and if that rating is the lowest investment grade bond rating it cannot have a negative watch/review for downgrade notice by a credit rating agency;
- the subsidiary must not carry on any activities other than those permitted by the licences;
- the subsidiary must not create any cross-default obligations or give or receive any intra-group cross-subsidies; and
- the percentage of equity compared with total capital of the subsidiary must remain above certain levels.

There is a further restriction relating only to The Narragansett Electric Company, which is required to maintain its consolidated net worth above certain levels.

These restrictions are subject to alteration in the US as and when a new rate case or rate plan is agreed with the relevant regulatory bodies for each operating company and in the UK through the normal licence review process.

As most of our business is regulated, at 31 March 2019 the majority of our net assets are subject to some of the restrictions noted above. These restrictions are not considered to be significantly onerous, nor do we currently expect they will prevent the planned payment of dividends in future in line with our dividend policy.

All the above requirements are monitored on a regular basis in order to ensure compliance. The Group has complied with all externally imposed capital requirements to which it is subject.

33. Borrowing facilities

To support our liquidity requirements and provide backup to commercial paper and other borrowings, we agree loan facilities with financial institutions over and above the value of borrowings that may be required. These committed credit facilities have never been drawn, and our undrawn amounts are listed below.

At 31 March 2019, we had bilateral committed credit facilities of £5,463 million (2018: £5,438 million). In addition, we had committed credit facilities from syndicates of banks of £264 million at 31 March 2019 (2018: £245 million). All committed credit facilities were undrawn in 2019 and 2018. An analysis of the maturity of these undrawn committed facilities is shown below:

	2019 £m	2018 £m
Undrawn committed borrowing facilities expiring:		
Less than 1 year	**–**	–
In 1 to 2 years	**–**	3,910
In 2 to 3 years	**2,190**	–
In 3 to 4 years	**1,668**	–
In 4 to 5 years	**1,869**	1,773
More than 5 years	**–**	–
	5,727	5,683

Of the unused facilities at 31 March 2019, £5,463 million (2018: £5,438 million) is available for liquidity purposes, while £264 million (2018: £245 million) is available as backup to specific US borrowings. Of the £1,869 million of undrawn committed borrowings facilities due to expire within four to five years, £270 million was renegotiated before 31 March 2019, with the expiry extended by a further year, with effect from 1 June 2019.

In addition to the above, the Group has Export Credit Agreements (ECAs) totalling £859 million (2018: £797 million), of which £510 million (2018: £704 million) is undrawn. The Group has also negotiated a new facility of £550 million, with effect from 1 April 2019, for the separately regulated business of National Grid Electricity System Operator Limited. This facility is not available as Group general liquidity support.

Notes to the consolidated financial statements – supplementary information continued

34. Subsidiary undertakings, joint ventures and associates

While we present consolidated results in these financial statements as if we were one company, our legal structure is such that there are a number of different operating and holding companies that contribute to the overall result. This structure has evolved through acquisitions as well as regulatory requirements to have certain activities within separate legal entities.

Subsidiary undertakings

A list of the Group's subsidiaries as at 31 March 2019 is given below. The entire share capital of subsidiaries is held within the Group except where the Group's ownership percentages are shown. These percentages give the Group's ultimate interest and therefore allow for the situation where subsidiaries are owned by partly owned intermediate subsidiaries. Where subsidiaries have different classes of shares, this is largely for historical reasons, and the effective percentage holdings given represent both the Group's voting rights and equity holding. Shares in National Grid (US) Holdings Limited, National Grid Holdings One plc and NGG Finance plc are held directly by National Grid plc. All other holdings in subsidiaries are owned by other subsidiaries within the Group. All subsidiaries are consolidated in the Group's financial statements.

Principal Group companies are identified in **bold**. These companies are incorporated and principally operate in the countries under which they are shown.

Incorporated in England and Wales

Registered office: 1 – 3 Strand, London WC2N 5EH, UK (unless stated otherwise in footnotes).

Beegas Nominees Limited
Birch Sites Limited
Carbon Sentinel Limited
Droylsden Metering Services Limited
Gridcom Limited
Icelink Interconnector Limited
Landranch Limited
Lattice Group Employee Benefit Trust Limited
Lattice Group Limited
Lattice Group Trustees Limited
Natgrid Limited
NatGrid One Limited
NatgridTW1 Limited
National Grid Belgium Limited
National Grid Blue Power Limited
National Grid Carbon Limited
National Grid Commercial Holdings Limited
National Grid Distributed Energy Limited
National Grid Electricity Group Trustee Limited
National Grid Electricity System Operator Limited
National Grid Electricity Transmission plc
National Grid Energy Metering Limited
National Grid Four Limited
National Grid Fourteen Limited
National Grid Gas Holdings Limited
National Grid Gas plc
National Grid Grain LNG Limited
National Grid Holdings Limited
National Grid Holdings One plc
National Grid IFA 2 Limited
National Grid Interconnector Holdings Limited
National Grid Interconnectors Limited
National Grid International Limited
National Grid Metering Limited
National Grid North Sea Link Limited
National Grid Offshore Limited
National Grid Partners Limited (previously National Grid Thirty Four Limited)
National Grid Property Holdings Limited
National Grid Seventeen Limited
National Grid Smart Limited
National Grid Ten
National Grid Thirty Five Limited
National Grid Thirty Six Limited
National Grid Twelve Limited
National Grid Twenty Eight Limited
National Grid Twenty-Five Limited
National Grid Twenty Seven Limited
National Grid Twenty Three Limited
National Grid UK Limited
National Grid UK Pension Services Limited
National Grid (US) Holdings Limited
National Grid (US) Investments 2 Limited
National Grid (US) Investments 4 Limited
National Grid (US) Partner 1 Limited
National Grid Ventures Limited
National Grid Viking Link Limited
National Grid William Limited
NG Nominees Limited
NG Shetland Link Limited
NGC Employee Shares Trustee Limited
NGG Finance plc
Ngrid Intellectual Property Limited
NGT Telecom No. 1 Limited
NGT Two Limited
Port Greenwich Limited
Stargas Nominees Limited
Supergrid Electricity Limited
Supergrid Energy Transmission Limited
Supergrid Limited
Thamesport Interchange Limited
The National Grid Group Quest Trustee Company Limited
The National Grid YouPlan Trustee Limited
Transco Limited
Warwick Technology Park Management Company (No 2) Limited (60.56%)[1]

1. Registered office: Shire Hall, PO Box 9, Warwick CV34 4RL, UK

34. Subsidiary undertakings, joint ventures and associates continued

Incorporated in the US

Registered office: Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808, New Castle County, USA (unless stated otherwise in footnotes).

Boston Gas Company[1]
British Transco Capital Inc.
British Transco Finance, Inc.
Broken Bridge Corp.[2]
Colonial Gas Company[1]
EUA Energy Investment Corporation[1]
Granite State Power Link LLC
GridAmerica Holdings Inc.
Grid NY LLC[3]
KeySpan CI Midstream Limited
KeySpan Energy Corporation[3]
KeySpan Energy Services Inc.
KeySpan Gas East Corporation[3]
KeySpan International Corporation
KeySpan MHK, Inc.
KeySpan Midstream Inc.
KeySpan Plumbing Solutions, Inc.[3]
KSI Contracting, LLC
KSI Electrical, LLC
KSI Mechanical, LLC
Land Management & Development, Inc.[3]
Landwest, Inc.[3]
Massachusetts Electric Company[1]
Metro Energy, LLC[3]
Metrowest Realty LLC
Mystic Steamship Corporation
Nantucket Electric Company[1]
National Grid Algonquin LLC
National Grid Connect Inc.
National Grid Development Holdings Corp.
National Grid Electric Services, LLC[3]
National Grid Energy Management, LLC
National Grid Energy Services LLC
National Grid Energy Trading Services LLC[3]
National Grid Engineering & Survey Inc.[3]
National Grid Generation LLC[3]
National Grid Generation Ventures LLC[3]
National Grid Glenwood Energy Center, LLC
National Grid Green Homes Inc.
National Grid IGTS Corp.[3]
National Grid Insurance USA Ltd[3]
National Grid Islander East Pipeline LLC
National Grid LNG GP LLC
National Grid LNG LLC
National Grid LNG LP LLC
National Grid Millennium LLC
National Grid NE Holdings 2 LLC[1]
National Grid North America Inc.
National Grid North East Ventures Inc.
National Grid Partners Inc. (previously National Grid Technologies Inc.)[3]
National Grid Port Jefferson Energy Center LLC
National Grid Services Inc.
National Grid Transmission Services Corporation[1]
National Grid US 6 LLC
National Grid US LLC
National Grid USA
National Grid USA Service Company, Inc.[3]
Nees Energy, Inc.[1]
New England Electric Transmission Corporation[2]
New England Energy Incorporated[1]
New England Hydro Finance Company, Inc. (53.704%)[1]
New England Hydro-Transmission Corporation (53.704%)[2]
New England Hydro-Transmission Electric Company Inc. (53.704%)[1]
New England Power Company[1]
Newport America Corporation[4]
NGNE LLC
NGV Emerald Acquisition Co. LLC[5]
NGV Emerald Holdings LLC[5]
Niagara Mohawk Energy, Inc.
Niagara Mohawk Holdings, Inc.[3]
Niagara Mohawk Power Corporation[3]
NM Properties, Inc.[3]
Northeast Renewable Link LLC
North East Transmission Co., Inc.
Opinac North America, Inc.
Philadelphia Coke Co., Inc.
Port of the Islands North, LLC[3]
The Brooklyn Union Gas Company[3]
The Narragansett Electric Company[4]
Transgas, Inc.[1]
Upper Hudson Development Inc.[1]
Valley Appliance and Merchandising Company[4]
Vermont Green Line Devco, LLC (90%)
Wayfinder Group, Inc.[1]

Incorporated in Australia

Registered office: Level 7, 330 Collins Street, Melbourne, VIC 3000, Australia

National Grid Australia Pty Limited

Incorporated in Canada

Registered office: 1959 Upper Water Street, Suite 800, Halifax NS, B3J 2X2, Canada

KeySpan Energy Development Co.

Incorporated in the Isle of Man

Registered office: Third Floor, St George's Court, Upper Church Street, Douglas, IM1 1EE, Isle of Man, UK

National Grid Insurance Company (Isle of Man) Limited
NGT Holding Company (Isle of Man) Limited

Incorporated in Jersey

Registered office: 44 Esplanade, St Helier, Jersey JE4 9WG, UK

National Grid Jersey Investments Limited
NG Jersey Limited

Incorporated in the Netherlands

Registered office: Westblaak 89, 3012 KG Rotterdam, PO Box 21153, 3001 AD, Rotterdam, Netherlands
British Transco International Finance B.V.

Registered office: Prins Bernhardplein 200, 1097 JB, Amsterdam, Netherlands
National Grid Holdings B.V.

Incorporated in the Republic of Ireland

Registered office: c/o Moore Stephens Nathans, Third Floor, Ulysses House, 23/24 Foley Street, Dublin 1, D01 W2T2, Ireland

National Grid Company (Ireland) Designated Activity Company (previously National Grid Insurance Company (Ireland) Designated Activity Company)*

1. Registered office: Corporation Service Company, 84 State Street, Boston MA 02109, Suffolk County, USA.
2. Registered office: Corporation Service Company, 10 Ferry Street, Suite 313, Concord NH 03301, Merrimack County, USA.
3. Registered office: Corporation Service Company, 80 State Street, Albany NY 12207-2543, Albany County, USA.
4. Registered office: Corporation Service Company, 222 Jefferson Boulevard, Suite 200, Warwick RI 02888, Kent County, USA.
5. Registered office: 404 Wyman Street, Waltham MA 02451 USA.

* In liquidation.

Notes to the consolidated financial statements – supplementary information continued

34. Subsidiary undertakings, joint ventures and associates continued

Joint ventures

A list of the Group's joint ventures as at 31 March 2019 is given below. All joint ventures are included in the Group's financial statements using the equity method of accounting. Principal joint ventures are identified in **bold**.

Incorporated in England and Wales

Registered office: 1–3 Strand, London WC2N 5EH, UK (unless stated otherwise in footnotes).

BritNed Development Limited (50%)*
Joint Radio Company Limited (50%)[1]**
Nemo Link Limited (50%)
NGET/SPT Upgrades Limited (50%)†
St William Homes LLP (50%)[2]

Incorporated in the US

Registered office: Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808, New Castle County, USA (unless stated otherwise in footnotes).

Clean Energy Generation, LLC (50%)
Goldendale Energy Storage LLC (50%)
Island Park Energy Center, LLC (50%)
Islander East Pipeline Company, LLC (50%)[3]
LI Energy Storage System, LLC (50%)
LI Solar Generation, LLC (50%)
Swan Lake North Holdings LLC (50%)

Incorporated in France

Registered office: 1 Terrasse Bellini, Tour Initiale, TSA 41000 – 9291, Paris La Defense, CEDEX, France

IFA2 SAS (50%)

Associates

A list of the Group's associates as at 31 March 2019 is given below. Unless otherwise stated, all associates are included in the Group's financial statements using the equity method of accounting. Principal associates are identified in **bold**.

Incorporated in England and Wales

Registered office: Ashbrook Court, Prologis Park, Central Boulevard, Coventry CV7 8PE, UK

Quadgas HoldCo Limited (39%)#

Incorporated in the US

Registered office: Corporation Service Company, 251 Little Falls Drive, Wilmington, DE 19808, New Castle County, USA (unless stated otherwise in footnotes).

Algonquin Gas Transmission, LLC (20%)[3]
Clean Line Energy Partners LLC (32%)[3]
Connecticut Yankee Atomic Power Company (19.5%)[4]
Direct Global Power, Inc. (26%)[5]
Energy Impact Fund LP (9.42%)[6]
KHB Venture LLC (33%)[7]
Maine Yankee Atomic Power Company (24%)[8]
Millennium Pipeline Company, LLC (26.25%)[3]
New York Transco LLC (28.3%)[9]
Nysearch RMLD, LLC (22.63%)
Sunrun Neptune Investor 2016 LLC[3]***
Yankee Atomic Electric Company (34.5%)[10]

Incorporated in Belgium

Registered office: Avenue de Cortenbergh 71, 1000 Brussels, Belgium

Coreso SA (15.84%)

Other investments

A list of the Group's other investments as at 31 March 2019 is given below.

Incorporated in England and Wales

Registered office: 1 More London Place, London SE1 2AF, UK

Energis plc (33.06%)‡

1. Registered office: Friars House, Manor House Drive, Coventry CV1 2TE, UK.
2. Registered office: Berkeley House, 19 Portsmouth Road, Cobham, Surrey KT11 1JG, UK.
3. Registered office: Corporation Trust Company, 1209 Orange, Wilmington DE 19808, New Castle County, USA.
4. Registered office: Carla Pizzella, 362 Injun Hollow Road, East Hampton CT 06424, USA.
5. Registered office: 507 Plum Street, PO Box 5001, Syracuse NY 13250, USA.
6. Registered office: Harvard Business Services, Inc., 16192 Coastal Highway, Lewes DE 19958, Sussex County, USA.
7. Registered office: De Maximus Inc., 135 Beaver Street, 4th Floor, Waltham MA 02452, USA.
8. Registered office: Joseph D Fay, 321 Old Ferry Road, Wiscasset ME 04578, USA.
9. Registered office: Corporation Service Company, 80 State Street, Albany NY 12207, USA.
10. Registered office: Brian Smith, 49 Yankee Road, Rowe MA 01367, USA.

* National Grid Interconnector Holdings Limited owns 284,500,000 €0.20 C Ordinary shares and one £1.00 Ordinary A share.
** National Grid Gas plc owns all £1.00 A Ordinary shares.
*** National Grid Green Homes Inc. owns 1,000 Class A Membership Interests.
† National Grid Electricity Transmission plc owns 50 £1.00 A Ordinary shares.
‡ In administration.
\# Quadgas HoldCo Limited is included in the financial statements from 30 June 2018 as an asset held for sale.

Our interests and activities are held or operated through the subsidiaries, joint arrangements or associates as disclosed above. These interests and activities (and their branches) are established in – and subject to the laws and regulations of – these jurisdictions.

35. Sensitivities

In order to give a clearer picture of the impact on our results or financial position of potential changes in significant estimates and assumptions, the following sensitivities are presented. These sensitivities are based on assumptions and conditions prevailing at the year-end and should be used with caution. The effects provided are not necessarily indicative of the actual effects that would be experienced because our actual exposures are constantly changing.

The sensitivities in the tables below show the potential impact in the income statement (and consequential impact on net assets) for a reasonably possible range of different variables each of which have been considered in isolation (i.e. with all other variables remaining constant). There are a number of these sensitivities which are mutually exclusive, and therefore if one were to happen, another would not, meaning a total showing how sensitive our results are to these external factors is not meaningful.

The sensitivities included in the tables below broadly have an equal and opposite effect if the sensitivity increases or decreases by the same amount unless otherwise stated.

(a) Sensitivities on areas of estimation uncertainty

The table below sets out the sensitivity analysis for each of the areas of estimation uncertainty set out in note 1E. These estimates are those that have a significant risk of resulting in a material adjustment to the carrying values of assets and liabilities in the next year.

	2019		2018	
	Income statement £m	Net assets £m	Income statement £m	Net assets £m
Pensions and other post-retirement benefits (pre-tax):[1]				
UK discount rate change of 0.5%[2]	6	1,064	8	1,075
US discount rate change of 0.5%[2]	16	688	15	623
UK RPI rate change of 0.5%[3]	4	908	5	965
UK long-term rate of increase in salaries change of 0.5%[4]	1	56	–	61
US long-term rate of increase in salaries change of 0.5%[4]	2	46	3	44
UK change of one year to life expectancy at age 65	1	610	2	588
US change of one year to life expectancy at age 65	4	406	4	359
Assumed US healthcare cost trend rates change of 1%	32	503	31	448
Environmental provision:				
10% change in estimated future cash flows	165	165	154	154

1. The changes shown are a change in the annual pension or other post-retirement benefit service charge and change in the defined benefit obligations.
2. A change in the discount rate is likely to occur as a result of changes in bond yields and as such would be expected to be offset to a significant degree by a change in the value of the bond assets held by the plans.
3. The projected impact resulting from a change in RPI reflects the underlying effect on pensions in payment, pensions in deferment and resultant increases in salary assumptions.
4. This change has been applied to both the pre 1 April 2014 and post 1 April 2014 rate of increase in salary assumption.

Pensions and other post-retirement benefits assumptions

Sensitivities have been prepared to show how the defined benefit obligations and annual service costs could potentially be impacted by changes in the relevant actuarial assumption that were reasonably possible as at 31 March 2019. In preparing sensitivities the potential impact has been calculated by applying the change to each assumption in isolation and assuming all other assumptions remain unchanged. This is with the exception of RPI in the UK where the corresponding change to increases to pensions in payment, increases to pensions in deferment and increases in salary is recognised.

Notes to the consolidated financial statements – supplementary information continued

35. Sensitivities continued

(b) Sensitivities on financial instruments

We are further required to show additional sensitivity analysis under IFRS 7 and these are shown separately in the subsequent table due to the additional assumptions that are made in order to produce meaningful sensitivity disclosures.

The Group adopted IFRS 9 with effect from 1 April 2018. The comparatives are not required to be restated and are accounted for in accordance with IAS 39. For further information on the impact of adopting IFRS 9 in respect to financial instruments, please see notes 15, 17, 21 and 32.

Our net debt as presented in note 29 is sensitive to changes in market variables, primarily being UK and US interest rates, the UK RPI and the dollar to sterling exchange rate. These impact the valuation of our borrowings, deposits and derivative financial instruments. The analysis illustrates the sensitivity of our financial instruments to reasonably possible changes in these market variables.

The following main assumptions were made in calculating the sensitivity analysis for continuing operations:

- the amount of net debt, the ratio of fixed to floating interest rates of the debt and derivatives portfolio, and the proportion of financial instruments in foreign currencies are all constant and on the basis of the hedge designations in place at 31 March 2019 and 2018 respectively;
- the statement of financial position sensitivity to interest rates relates to items presented at their fair values: derivative financial instruments; our investments measured at fair value through profit and loss (FVTPL) and fair value through other comprehensive income; and our liability measured at FVTPL. Further debt and other deposits are carried at amortised cost and so their carrying value does not change as interest rates move;
- the sensitivity of interest to movements in interest rates is calculated on net floating rate exposures on debt, deposits and derivative instruments;
- changes in the carrying value of derivatives from movements in interest rates of designated cash flow hedges are assumed to be recorded fully within equity; and
- changes in the carrying value of derivative financial instruments designated as net investment hedges from movements in interest rates are presented in equity as costs of hedging, with a one-year release to the income statement. The impact of movements in the dollar to sterling exchange rate are recorded directly in equity.

	2019		2018	
	Income statement £m	Other equity reserves £m	Income statement £m	Other equity reserves £m
Financial risk (post-tax):				
UK RPI change of 0.5%[1]	27	–	30	–
UK interest rates change of 0.5%	16	13	43	26
US interest rates change of 0.5%	11	44	39	17
US dollar exchange rate change of 10%[2]	53	246	48	479

1. Excludes sensitivities to LPI curve. Further details on sensitivities are provided in note 32(g).
2. The other equity reserves impact does not reflect the exchange translation in our US subsidiaries' net assets. It is estimated this would change by £1,119 million (2018: £1,040 million) in the opposite direction if the dollar exchange rate changed by 10%.

Our commodity contract derivatives are sensitive to price risk. Additional sensitivities in respect to commodity price risk and to our derivative fair values are as follows:

	2019		2018	
	Income statement £m	Net assets £m	Income statement £m	Net assets £m
Commodity price risk (post-tax):				
10% increase in commodity prices	26	26	23	23
10% decrease in commodity prices	(27)	(27)	(23)	(23)
Assets and liabilities carried at fair value (pre-tax):[1]				
10% fair value change in derivative financial instruments[2]	(3)	(3)	60	60
10% fair value change in commodity contract derivative liabilities	–	–	(5)	(5)

1. Excludes sensitivities to the Further Acquisition Agreement derivative. These were classified to held for sale as at 31 March 2019 (see note 10).
2. The effect of a 10% change in fair value assumes no hedge accounting.

36. Additional disclosures in respect of guaranteed securities

We have preferred shares that are listed on a US national securities exchange and are guaranteed by other companies in the Group. These guarantors commit to honour any liabilities should the company issuing the debt have any financial difficulties. In order to provide debt holders with information on the financial stability of the companies providing the guarantees, we are required to disclose individual financial information for these companies. We have chosen to include this information in the Group financial statements rather than submitting separate stand-alone financial statements.

The following condensed consolidating financial information, comprising statements of comprehensive income, statements of financial position and cash flow statements, is given in respect of Niagara Mohawk Power Corporation as a result of National Grid plc's guarantee, dated 29 October 2007, of Niagara Mohawk's 3.6% and 3.9% issued preferred shares, which amount to £29 million. National Grid plc's guarantee of Niagara Mohawk Power Corporation's preferred shares is full and unconditional pursuant to Rule 3-10(i)(8) (i) and (ii) of Regulation S-X. These guarantors commit to honour any liabilities should the company issuing the debt have any financial difficulties.

On 1 June 2018, the Group repaid the 6.625% Guaranteed Notes due 2018 that were issued in June 1998 by British Transco Finance Inc., then known as British Gas Finance Inc. (issuer of notes).

The following financial information for National Grid plc and Niagara Mohawk Power Corporation on a condensed consolidating basis is intended to provide investors with meaningful and comparable financial information, and is provided pursuant to various rules including Rule 3-10 of Regulation S-X in lieu of the separate financial statements of each subsidiary issuer of public debt securities.

This financial information should be read in conjunction with the other disclosures in these financial statements.

Summary statements of comprehensive income are presented, on a consolidated basis, for the three years ended 31 March 2019. Summary statements of comprehensive income of National Grid plc are presented under IFRS measurement principles, as modified by the inclusion of the results of subsidiary undertakings on the basis of equity accounting principles.

The summary statements of financial position of National Grid plc include the investments in subsidiaries recorded on the basis of equity accounting principles for the purposes of presenting condensed consolidating financial information under IFRS. The summary statements of financial position present these investments within non-current financial and other investments.

The consolidation adjustments column includes the necessary amounts to eliminate the intercompany balances and transactions between National Grid plc, Niagara Mohawk Power Corporation and other subsidiaries.

Notes to the consolidated financial statements – supplementary information continued

36. Additional disclosures in respect of guaranteed securities continued

Summary statements of comprehensive income for the year ended 31 March 2019 – IFRS

	Parent guarantor	Issuer of notes			
	National Grid plc £m	Niagara Mohawk Power Corporation £m	Other subsidiaries £m	Consolidation adjustments £m	National Grid consolidated £m
Continuing operations					
Revenue	–	2,483	12,450	–	14,933
Operating costs:					
Depreciation, amortisation and impairment	–	(216)	(1,519)	–	(1,735)
Payroll costs	–	(360)	(1,492)	–	(1,852)
Purchases of electricity	–	(559)	(895)	–	(1,454)
Purchases of gas	–	(189)	(1,453)	–	(1,642)
Rates and property taxes	–	(200)	(908)	–	(1,108)
Balancing Services Incentive Scheme	–	–	(1,196)	–	(1,196)
Other operating costs	–	(569)	(2,507)	–	(3,076)
	–	(2,093)	(9,970)	–	(12,063)
Total operating profit	–	390	2,480	–	2,870
Net finance costs	(252)	(124)	(693)	–	(1,069)
Interest in equity accounted affiliates	1,712	–	40	(1,712)	40
Profit before tax	1,460	266	1,827	(1,712)	1,841
Tax	50	(56)	(333)	–	(339)
Profit after tax from discontinued operations	–	–	12	–	12
Profit for the year	1,510	210	1,506	(1,712)	1,514
Amounts recognised in other comprehensive income from continuing operations[1]	303	4	(45)	41	303
Amounts recognised in other comprehensive income from discontinued operations[1]	36	–	36	(36)	36
Total comprehensive income for the year	**1,849**	**214**	**1,497**	**(1,707)**	**1,853**
Attributable to:					
Equity shareholders	1,849	214	1,493	(1,707)	1,849
Non-controlling interests	–	–	4	–	4
	1,849	**214**	**1,497**	**(1,707)**	**1,853**

1. Includes other comprehensive income relating to interest in equity accounted affiliates.

36. Additional disclosures in respect of guaranteed securities continued

Summary statements of comprehensive income for the year ended 31 March 2018[1] – IFRS

	Parent guarantor	Issuer of notes		Subsidiary guarantor			
	National Grid plc £m	Niagara Mohawk Power Corporation £m	British Transco Finance Inc. £m	National Grid Gas plc £m	Other subsidiaries £m	Consolidation adjustments £m	National Grid consolidated £m
Continuing operations							
Revenue	–	2,416	–	1,430	11,495	(91)	15,250
Operating costs:							
Depreciation, amortisation and impairment	–	(190)	–	(245)	(1,095)	–	(1,530)
Payroll costs	–	(318)	–	(122)	(1,208)	–	(1,648)
Purchases of electricity	–	(537)	–	–	(748)	–	(1,285)
Purchases of gas	–	(166)	–	–	(1,377)	–	(1,543)
Rates and property taxes	–	(183)	–	(94)	(780)	–	(1,057)
Balancing Services Incentive Scheme	–	–	–	–	(1,012)	–	(1,012)
Payments to other UK network owners	–	–	–	–	(1,043)	–	(1,043)
Other operating costs	–	(397)	–	(331)	(2,002)	91	(2,639)
	–	(1,791)	–	(792)	(9,265)	91	(11,757)
Total operating profit	–	625	–	638	2,230	–	3,493
Net finance income/(costs)	889	(100)	–	(174)	(1,497)	–	(882)
Interest in equity accounted affiliates	2,622	–	–	8	49	(2,630)	49
Profit before tax	3,511	525	–	472	782	(2,630)	2,660
Tax	40	321	–	(103)	631	–	889
Profit after tax from discontinued operations	–	–	–	17	(15)	–	2
Profit for the year	3,551	846	–[2]	386	1,398	(2,630)	3,551
Amounts recognised in other comprehensive income from continuing operations[3]	224	1	–	272	457	(730)	224
Amounts recognised in other comprehensive income from discontinued operations[3]	147	–	–	–	147	(147)	147
Total comprehensive income for the year	**3,922**	**847**	**–**	**658**	**2,002**	**(3,507)**	**3,922**
Attributable to:							
Equity shareholders	3,922	847	–	658	2,002	(3,507)	3,922
Non-controlling interests	–	–	–	–	–	–	–
	3,922	**847**	**–**	**658**	**2,002**	**(3,507)**	**3,922**

1. Comparatives have been re-presented to reflect the classification of our retained interest in Quadgas as a discontinued operation in the current period (see note 1C and note 10).
2. Profit for the year for British Transco Finance Inc. is £nil as interest payable to external bond holders is offset by interest receivable on loans to National Grid Gas plc.
3. Includes other comprehensive income relating to interest in equity accounted affiliates.

Notes to the consolidated financial statements – supplementary information continued

36. Additional disclosures in respect of guaranteed securities continued

Summary statements of comprehensive income for the year ended 31 March 2017 – IFRS

	Parent guarantor	Issuer of notes		Subsidiary guarantor			
	National Grid plc £m	Niagara Mohawk Power Corporation £m	British Transco Finance Inc. £m	National Grid Gas plc re-presented £m	Other subsidiaries re-presented £m	Consolidation adjustments £m	National Grid consolidated £m
Continuing operations							
Revenue	–	2,388	–	1,376	11,435	(164)	15,035
Operating costs:							
Depreciation, amortisation and impairment	–	(193)	–	(256)	(1,032)	–	(1,481)
Payroll costs	–	(326)	–	(114)	(1,138)	–	(1,578)
Purchases of electricity	–	(511)	–	–	(586)	–	(1,097)
Purchases of gas	–	(140)	–	(67)	(1,012)	–	(1,219)
Rates and property taxes	–	(188)	–	(101)	(753)	–	(1,042)
Balancing Services Incentive Scheme	–	–	–	–	(1,120)	–	(1,120)
Payments to other UK network owners	–	–	–	–	(1,008)	–	(1,008)
Other operating costs	–	(435)	–	(394)	(2,617)	164	(3,282)
	–	(1,793)	–	(932)	(9,266)	164	(11,827)
Total operating profit	–	595	–	444	2,169	–	3,208
Net finance income/(costs)	8,177	(101)	–	(253)	(8,910)	–	(1,087)
Dividends receivable	–	–	–	–	8,100	(8,100)	–
Interest in equity accounted affiliates	(401)	–	–	–	63	401	63
Profit before tax	7,776	494	–	191	1,422	(7,699)	2,184
Tax	19	(181)	–	16	(228)	–	(374)
Profit after tax from discontinued operations	–	–	–	4,633	1,351	–	5,984
Profit for the year	7,795	313	–[1]	4,840	2,545	(7,699)	7,794
Amounts recognised in other comprehensive income from continuing operations[2]	578	–	–	114	177	(291)	578
Amounts recognised in other comprehensive income from discontinued operations[2]	42	–	–	51	(62)	11	42
Total comprehensive income for the year	**8,415**	**313**	**–**	**5,005**	**2,660**	**(7,979)**	**8,414**
Attributable to:							
Equity shareholders	8,415	313	–	5,005	2,661	(7,979)	8,415
Non-controlling interests	–	–	–	–	(1)	–	(1)
	8,415	**313**	**–**	**5,005**	**2,660**	**(7,979)**	**8,414**

1. Profit for the year for British Transco Finance Inc. is £nil as interest payable to external bond holders is offset by interest receivable on loans to National Grid Gas plc.
2. Includes other comprehensive income relating to interest in equity accounted affiliates.

36. Additional disclosures in respect of guaranteed securities continued

Statements of financial position as at 31 March 2019 – IFRS

	Parent guarantor	Issuer of notes			
	National Grid plc £m	Niagara Mohawk Power Corporation £m	Other subsidiaries £m	Consolidation adjustments £m	National Grid consolidated £m
Non-current assets					
Goodwill	–	745	5,124	–	5,869
Other intangible assets	–	3	1,081	–	1,084
Property, plant and equipment	–	6,985	36,928	–	43,913
Other non-current assets	–	4	260	–	264
Amounts owed by subsidiary undertakings	358	–	2,073	(2,431)	–
Pension assets	–	260	1,307	–	1,567
Financial and other investments	23,573	22	3,434	(25,754)	1,275
Derivative financial assets	–	9	1,036	–	1,045
Total non-current assets	23,931	8,028	51,243	(28,185)	55,017
Current assets					
Inventories and current intangible assets	–	41	329	–	370
Trade and other receivables	1	535	2,617	–	3,153
Current tax assets	–	–	260	(134)	126
Amounts owed by subsidiary undertakings	12,514	476	14,101	(27,091)	–
Financial and other investments	895	13	1,073	–	1,981
Derivative financial assets	110	21	80	(103)	108
Cash and cash equivalents	75	12	165	–	252
Assets held for sale	–	–	1,956	–	1,956
Total current assets	13,595	1,098	20,581	(27,328)	7,946
Total assets	**37,526**	**9,126**	**71,824**	**(55,513)**	**62,963**
Current liabilities					
Borrowings	(1,275)	(634)	(2,563)	–	(4,472)
Derivative financial liabilities	(92)	(15)	(346)	103	(350)
Trade and other payables	(58)	(413)	(3,298)	–	(3,769)
Contract liabilities	–	(4)	(57)	–	(61)
Amounts owed to subsidiary undertakings	(14,104)	–	(12,987)	27,091	–
Current tax liabilities	–	(148)	(147)	134	(161)
Provisions	–	(24)	(292)	–	(316)
Total current liabilities	(15,529)	(1,238)	(19,690)	27,328	(9,129)
Non-current liabilities					
Borrowings	(346)	(2,048)	(21,864)	–	(24,258)
Derivative financial liabilities	(228)	(8)	(597)	–	(833)
Other non-current liabilities	–	(301)	(507)	–	(808)
Contract liabilities	–	(181)	(752)	–	(933)
Amounts owed to subsidiary undertakings	(2,074)	–	(357)	2,431	–
Deferred tax liabilities	–	(678)	(3,287)	–	(3,965)
Pensions and other post-retirement benefit obligations	–	(872)	(913)	–	(1,785)
Provisions	–	(271)	(1,612)	–	(1,883)
Total non-current liabilities	(2,648)	(4,359)	(29,889)	2,431	(34,465)
Total liabilities	**(18,177)**	**(5,597)**	**(49,579)**	**29,759**	**(43,594)**
Net assets	**19,349**	**3,529**	**22,245**	**(25,754)**	**19,369**
Equity					
Share capital	458	144	180	(324)	458
Share premium account	1,314	2,394	9,032	(11,426)	1,314
Retained earnings	21,814	991	13,048	(14,039)	21,814
Other equity reserves	(4,237)	–	(35)	35	(4,237)
Shareholders' equity	**19,349**	**3,529**	**22,225**	**(25,754)**	**19,349**
Non-controlling interests	–	–	20	–	20
Total equity	**19,349**	**3,529**	**22,245**	**(25,754)**	**19,369**

Notes to the consolidated financial statements – supplementary information continued

36. Additional disclosures in respect of guaranteed securities continued

Statements of financial position as at 31 March 2018 – IFRS

	Parent guarantor	Issuer of notes		Subsidiary guarantor			
	National Grid plc £m	Niagara Mohawk Power Corporation £m	British Transco Finance Inc. £m	National Grid Gas plc £m	Other subsidiaries £m	Consolidation adjustments £m	National Grid consolidated £m
Non-current assets							
Goodwill	–	691	–	–	4,753	–	5,444
Other intangible assets	–	3	–	107	789	–	899
Property, plant and equipment	–	6,148	–	4,433	29,272	–	39,853
Other non-current assets	–	3	–	94	18	–	115
Amounts owed by subsidiary undertakings	350	–	–	3,426	2,593	(6,369)	–
Pension assets	–	231	–	412	766	–	1,409
Financial and other investments	21,708	30	–	101	12,340	(31,112)	3,067
Derivative financial assets	18	2	–	591	708	–	1,319
Total non-current assets	22,076	7,108	–	9,164	51,239	(37,481)	52,106
Current assets							
Inventories and current intangible assets	–	36	–	22	283	–	341
Trade and other receivables	1	515	–	276	2,006	–	2,798
Current tax assets	–	–	–	–	307	(193)	114
Amounts owed by subsidiary undertakings	11,254	130	220	708	11,253	(23,565)	–
Financial and other investments	938	15	–	863	878	–	2,694
Derivative financial assets	308	7	–	46	–	44	405
Cash and cash equivalents	–	4	–	271	54	–	329
Total current assets	12,501	707	220	2,186	14,781	(23,714)	6,681
Total assets	**34,577**	**7,815**	**220**	**11,350**	**66,020**	**(61,195)**	**58,787**
Current liabilities							
Borrowings	(781)	(51)	(218)	(675)	(2,722)	–	(4,447)
Derivative financial liabilities	(187)	(36)	–	(68)	(66)	(44)	(401)
Trade and other payables	(62)	(318)	–	(347)	(2,726)	–	(3,453)
Amounts owed to subsidiary undertakings	(11,809)	–	–	(624)	(11,132)	23,565	–
Current tax liabilities	–	(202)	–	(26)	(88)	193	(123)
Provisions	–	(23)	–	(66)	(184)	–	(273)
Total current liabilities	(12,839)	(630)	(218)	(1,806)	(16,918)	23,714	(8,697)
Non-current liabilities							
Borrowings	(773)	(2,087)	–	(3,635)	(15,683)	–	(22,178)
Derivative financial liabilities	(41)	(18)	–	(157)	(444)	–	(660)
Other non-current liabilities	–	(281)	–	(181)	(855)	–	(1,317)
Amounts owed to subsidiary undertakings	(2,091)	–	–	(500)	(3,778)	6,369	–
Deferred tax liabilities	(1)	(626)	–	(441)	(2,568)	–	(3,636)
Pensions and other post-retirement benefit obligations	–	(765)	–	–	(907)	–	(1,672)
Provisions	–	(248)	–	(129)	(1,402)	–	(1,779)
Total non-current liabilities	(2,906)	(4,025)	–	(5,043)	(25,637)	6,369	(31,242)
Total liabilities	**(15,745)**	**(4,655)**	**(218)**	**(6,849)**	**(42,555)**	**30,083**	**(39,939)**
Net assets	**18,832**	**3,160**	**2**	**4,501**	**23,465**	**(31,112)**	**18,848**
Equity							
Share capital	452	133	–	45	182	(360)	452
Share premium account	1,321	2,194	–	204	9,032	(11,430)	1,321
Retained earnings	21,599	830	2	2,929	14,217	(17,978)	21,599
Other equity reserves	(4,540)	3	–	1,323	18	(1,344)	(4,540)
Shareholders' equity	**18,832**	**3,160**	**2**	**4,501**	**23,449**	**(31,112)**	**18,832**
Non-controlling interests	–	–	–	–	16	–	16
Total equity	**18,832**	**3,160**	**2**	**4,501**	**23,465**	**(31,112)**	**18,848**

36. Additional disclosures in respect of guaranteed securities continued

Cash flow statements

	Parent guarantor	Issuer of notes		Subsidiary guarantor			
	National Grid plc £m	Niagara Mohawk Power Corporation £m	British Transco Finance Inc. £m	National Grid Gas plc £m	Other subsidiaries £m	Consolidation adjustments £m	National Grid consolidated £m
Year ended 31 March 2019							
Net cash flow from operating activities – continuing operations	33	572	n/a	n/a	3,784	–	4,389
Net cash flow used in operating activities – discontinued operations	–	–	n/a	n/a	(71)	–	(71)
Net cash flow from/(used in) investing activities – continuing operations	121	(823)	n/a	n/a	(3,570)	1,082	(3,190)
Net cash flow from investing activities – discontinued operations	–	–	n/a	n/a	156	–	156
Net cash flow (used in)/from financing activities – continuing operations	(79)	259	n/a	n/a	(462)	(1,082)	(1,364)
Net cash flow from financing activities – discontinued operations	–	–	n/a	n/a	–	–	–
Net increase/(decrease) in cash and cash equivalents in the year	**75**	**8**	**n/a**	**n/a**	**(163)**	**–**	**(80)**
Year ended 31 March 2018							
Net cash flow from operating activities – continuing operations	35	662	–	888	3,125	–	4,710
Net cash flow used in operating activities – discontinued operations	–	–	–	(98)	(109)	–	(207)
Net cash flow from/(used in) investing activities – continuing operations	4,660	(473)	15	656	(1,930)	(862)	2,066
Net cash flow from investing activities – discontinued operations	–	–	–	–	171	–	171
Net cash flow (used in)/from financing activities – continuing operations	(5,785)	(189)	(15)	(1,041)	(1,148)	862	(7,316)
Net cash flow used in financing activities – discontinued operations	–	–	–	(125)	(106)	–	(231)
Net (decrease)/increase in cash and cash equivalents in the year	(1,090)	–	–	280	3	–	(807)
Year ended 31 March 2017							
Net cash flow from operating activities – continuing operations	53	757	–	918	2,592	–	4,320
Net cash flow from operating activities – discontinued operations	–	–	–	450	459	–	909
Net cash flow from/(used in) investing activities – continuing operations	4,181	(469)	15	215	(1,118)	(6,458)	(3,634)
Net cash flow from/(used in) investing activities – discontinued operations	–	–	–	5,618	(6,298)	–	(680)
Net cash flow (used in)/from financing activities – continuing operations	(3,146)	(288)	(15)	(8,322)	3,771	6,458	(1,542)
Net cash flow from financing activities – discontinued operations	–	–	–	1,120	491	–	1,611
Net increase/(decrease) in cash and cash equivalents in the year	1,088	–	–	(1)	(103)	–	984

Cash dividends were received by National Grid plc from subsidiary undertakings amounting to £nil during the year ended 31 March 2019 (2018: £950 million; 2017: £6,006 million).

Maturity analysis of Parent Company borrowings

	2019 £m	2018 £m
Total borrowings are repayable as follows:		
Less than 1 year	**1,275**	781
In 1 to 2 years	**–**	438
In 2 to 3 years	**346**	–
In 3 to 4 years	**–**	335
In 4 to 5 years	**–**	–
More than 5 years	**–**	–
	1,621	1,554

Notes to the consolidated financial statements – supplementary information continued

37. Transition to IFRS 9 and IFRS 15

The Group has adopted IFRS 9 and IFRS 15 with effect from 1 April 2018. The impact of the transition on the opening consolidated statement of financial position is set out in the following table:

Impact of transition	31 March 2018 As previously reported £m	Transition adjustments IFRS 9 £m	Transition adjustments IFRS 15 £m	1 April 2018 £m
Non-current assets				
Goodwill	5,444	–	–	**5,444**
Other intangible assets	899	–	–	**899**
Property, plant and equipment	39,853	–	–	**39,853**
Other non-current assets	115	–	–	**115**
Pension assets	1,409	–	–	**1,409**
Financial and other investments	899	–[1]	–	**899**
Investments in joint ventures and associates	2,168	–	–	**2,168**
Derivative financial assets	1,319	–	–	**1,319**
Total non-current assets	52,106	–	–	**52,106**
Current assets				
Inventories and current intangible assets	341	–	–	**341**
Trade and other receivables	2,798	–[2]	(3)	**2,795**
Current tax assets	114	–	–	**114**
Financial and other investments	2,694	–[1]	–	**2,694**
Derivative financial assets	405	–	–	**405**
Cash and cash equivalents	329	–	–	**329**
Total current assets	6,681	–	(3)	**6,678**
Total assets	58,787	–	(3)	**58,784**
Current liabilities				
Borrowings	(4,447)	–	–	**(4,447)**
Derivative financial liabilities	(401)	–	–	**(401)**
Trade and other payables	(3,453)	–	59[7]	**(3,394)**
Contract liabilities	–	–	(53)[7]	**(53)**
Current tax liabilities	(123)	–	–	**(123)**
Provisions	(273)	–	–	**(273)**
Total current liabilities	(8,697)	–	6	**(8,691)**
Non-current liabilities				
Borrowings	(22,178)	(32)[3]	–	**(22,210)**
Derivative financial liabilities	(660)	–	–	**(660)**
Other non-current liabilities	(1,317)	–	567[7]	**(750)**
Contract liabilities	–	–	(813)[7]	**(813)**
Deferred tax liabilities	(3,636)	5[4]	74[8]	**(3,557)**
Pensions and other post-retirement benefit obligations	(1,672)	–	–	**(1,672)**
Provisions	(1,779)	–	–	**(1,779)**
Total non-current liabilities	(31,242)	(27)	(172)	**(31,441)**
Total liabilities	(39,939)	(27)	(166)	**(40,132)**
Net assets	18,848	(27)	(169)	**18,652**
Equity				
Share capital	452	–	–	**452**
Share premium account	1,321	–	–	**1,321**
Retained earnings	21,599	(99)[5]	(169)[9]	**21,331**
Other equity reserves	(4,540)	72[6]	–	**(4,468)**
Total shareholders' equity	18,832	(27)	(169)	**18,636**
Non-controlling interests	16	–	–	**16**
Total equity	18,848	(27)	(169)	**18,652**

37. Transition to IFRS 9 and IFRS 15 continued

Both standards were applied using the modified retrospective approach whereby comparative amounts have not been restated on transition, but a cumulative adjustment has been made to retained earnings in the opening consolidated statement of financial position as at 1 April 2018.

IFRS 9: Financial Instruments

IFRS 9 has changed the rules concerning the classification and measurement of financial instruments, impairment of financial assets, and hedge accounting. Details of the impact of applying IFRS 9 for the year ended 31 March 2019 are set out below.

Adjustments arising as a result of the transition to IFRS 9:

1. The available-for-sale category for financial assets has been replaced with investments held at fair value through profit and loss (FVTPL) and investments held at fair value through other comprehensive income (FVOCI). Changes to the classification and measurement of financial assets have not altered the carrying value of any financial assets held by the Group. The net impact to retained earnings of the reclassification on transition was an £8 million gain.

   As described in note 15, all recognised financial assets that are within the scope of IFRS 9 are initially recorded at fair value and subsequently measured at amortised cost or fair value based on the Group's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets. Therefore on 1 April 2018, the Group reclassified its investments as follows:

   - Money market funds and fund investments held by captive insurance companies have been classified as financial assets at FVTPL because their contractual cash flows are not solely payments of principal and interest;
   - Investments in debt securities that have contractual payments that are solely payments of principal and interest, and which are held as part of the liquidity portfolio or to back employee benefit liabilities, have been classified as financial assets at FVOCI because they are held in a business model whose objective is to collect the contractual cash flows and to sell the debt instruments;
   - The Group has elected to hold investments in equity securities, which are held to back employee benefit liabilities, as financial assets at FVOCI as the Group does not believe that changes in their fair value is reflective of the financial performance of the Group; and
   - Loans to joint ventures and associates, cash at bank, and short-term deposits are classified at amortised cost as they have contractual cash flows which are solely payments of principal and interest and the Group holds them to collect contractual cash flows.

   Aside from derivative financial instruments, which remain classified as FVTPL, the Group did not previously have any financial assets or liabilities classified at FVTPL.

   The table below illustrates those financial assets and liabilities that have been reclassified at 1 April 2018:

Financial asset/liability	Note	Original measurement category under IAS 39	New measurement category under IFRS 9	Original carrying amount under IAS 39 £m	Change to measurement basis under IFRS 9 £m	New carrying amount under IFRS 9 £m
Money market funds and fund investments in equities and bonds	15	Available-for-sale investments	Financial assets at FVTPL	2,294	–	2,294
Cash surrender value of life insurance policies and investments in debt securities	15	Available-for-sale investments	Financial assets at FVOCI	343	–	343
Investments in equity securities	15	Available-for-sale investments	Financial assets at FVOCI (equity instruments)	84	–	84
Loans to joint ventures and associates and restricted balances	15	Loans and receivables	Financial assets at amortised cost	872	–	872
Borrowings	21	Financial liabilities at amortised cost	Financial liabilities at fair value through profit and loss	(570)	(32)	(602)

Note that the table above does not include derivative assets, derivative liabilities, trade receivables, cash at bank and short-term deposits, borrowings measured at amortised cost or trade payables. This is because neither the classification nor the measurement of these items has changed on transition to IFRS 9.

Notes to the consolidated financial statements
– supplementary information continued

37. Transition to IFRS 9 and IFRS 15 continued

2. The change from the incurred loss impairment model of IAS 39 to the expected loss model in IFRS 9 has not had a material impact on the Group's credit loss provision. The Group calculates its impairment provision on trade receivables using a sophisticated provisions matrix. The inclusion of forward-looking information has not had a significant impact on the matrix as the relevant short-term future economic conditions affecting our retail customers in the US are expected to be similar to recent experience.

3. The Group elected to reclassify an existing liability with a carrying value of £570 million from amortised cost to fair value through profit and loss to reduce a measurement mismatch. At transition, the resultant impacts include an increase in the carrying value of the liability of £32 million, a reduction in retained earnings of £40 million and the establishment of an own credit reserve (within other equity reserves) of £7 million.

4. Deferred tax is recognised on the adjustments recorded on the transition to IFRS 9. Reserve impacts are stated net of related deferred tax.

5. Retained earnings includes the impact from adjustments 1, 3 and 6.

6. The Group has adopted the hedge accounting requirements of IFRS 9, which more closely align with the Group's risk management policies. On transition, it was concluded that all IAS 39 hedge relationships are qualifying IFRS 9 relationships with the treatment of the cost of hedging being the main change. The effect was a reclassification in reserves of a £67 million gain from retained earnings and a £10 million gain from the cash flow hedge reserve, into a new cost of hedging reserve (within other equity reserves). In this reserve, qualifying unrealised gains and losses excluded from hedging relationships are deferred and released systematically into profit or loss to match the timing of hedged items.

IFRS 15: Revenue from Contracts with Customers

IFRS 15 has primarily changed the accounting for our connection and diversion revenues in our regulated businesses. No practical expedients on transition were applied.

The accounting for revenue under IFRS 15 does not represent a substantive change from the Group's previous practice under IAS 18 for recognising revenue from sales to customers with the exception of the following items:

- Certain pass-through revenues (principally revenues collected on behalf of the Scottish and Offshore transmission operators) will be recorded net of operating costs, whereas previously they were recognised gross of operating costs. Had we not adopted IFRS 15, our revenues and operating costs for the year ended 31 March 2019 would have been £1,197 million higher, with no impact to operating profits;
- Contributions for capital works relating to connections for our customers are now deferred as contract liabilities on our consolidated statement of financial position and released over the life of the connection assets. This is a change for our US Regulated business and our UK Gas Transmission business, where previously revenues were recorded once the work was completed. Had we not adopted IFRS 15, our revenues and operating profit for the year ended 31 March 2019 would have been £57 million higher; and
- In the UK, contributions for capital works relating to diversions are now recognised as the works are completed. This is a change for the UK regulated businesses where revenues were previously deferred over the life of the asset. Had we not adopted IFRS 15, our revenues and operating profit for the year ended 31 March 2019 would have been £26 million and £23 million lower, respectively.

Adjustments arising as a result of the transition to IFRS 15:

7. Deferred income from contributions for capital works have now been reclassified to contract liabilities. In addition, these liabilities for capital works relating to connections have increased as these capital contributions for connections are cumulatively adjusted for on 1 April 2018 and are now deferred and released over the life of the connection assets. This is a change for our US Regulated business and our UK Gas Transmission business where previously revenues were recorded once the work was completed.

   Partially offsetting the increase in contract liabilities for connections is the change in accounting treatment for contributions relating to diversions in our UK businesses. These contributions are recognised as revenue as the works are completed where previously revenue was recognised over the life of the assets.

8. Deferred tax is recorded on the incremental amounts recorded against capital contributions and contract liabilities on the transition to IFRS 15. Deferred tax balances have been calculated at the rate substantially enacted at the balance sheet date.

9. The transition adjustment reflects the net of adjustments 7 and 8 above.

38. Post balance sheet events

In March 2019, National Grid Ventures entered into an agreement to acquire 100% of Geronimo Energy, a clean energy developer based in Minneapolis in the United States for $100 million with potential further payments of up to $100 million subject to successful development of the project pipeline. Completion of the acquisition is dependent on the execution of a joint venture agreement with Washington State Investment Board and regulatory approvals being obtained (expected in the summer of 2019).

Company accounting policies

We are required to include the stand-alone balance sheet of our ultimate Parent Company, National Grid plc, under the Companies Act 2006. This is because the publicly traded shares are actually those of National Grid plc (the Company) and the following disclosures provide additional information to shareholders.

A. Basis of preparation

National Grid plc is the Parent Company of the National Grid Group, which is engaged in the transmission and distribution of electricity and gas in Great Britain and northeastern US. The Company is a public limited company, limited by shares. The Company is incorporated and domiciled in England, with its registered office at 1–3 Strand, London, WC2N 5EH.

The financial statements of National Grid plc for the year ended 31 March 2019 were approved by the Board of Directors on 15 May 2019. The Company meets the definition of a qualifying entity under Financial Reporting Standard 100 (FRS 100) issued by the Financial Reporting Council. Accordingly these individual financial statements of the Company have been prepared in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework' (FRS 101). In preparing these financial statements the Company applies the recognition and measurement requirements of International Financial Reporting Standards (IFRS) as adopted by the EU, but makes amendments where necessary in order to comply with the provisions of the Companies Act 2006 and sets out below where advantage of the FRS 101 disclosure exemptions has been taken.

These individual financial statements have been prepared on an historical cost basis, except for the revaluation of financial instruments, and are presented in pounds sterling, which is the currency of the primary economic environment in which the Company operates. The 2018 comparative financial information has also been prepared on this basis.

These individual financial statements have been prepared on a going concern basis, which presumes that the Company has adequate resources to remain in operation, and that the Directors intend it to do so, for at least one year from the date the financial statements are signed. As the Company is part of a larger group it participates in the Group's centralised treasury arrangements and so shares banking arrangements with its subsidiaries. The Company is expected to generate positive cash flows or be in a position to obtain finance via intercompany loans to continue to operate for the foreseeable future.

The Directors are not aware of any material uncertainties related to events or conditions that may cast significant doubt upon the Company's ability to continue as a going concern. Thus they continue to adopt the going concern basis of accounting in preparing the annual financial statements.

In accordance with the exemption permitted by section 408 of the Companies Act 2006, the Company has not presented its own profit and loss account or statement of comprehensive income.

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements of the Company in accordance with FRS 101:

- a cash flow statement and related notes;
- disclosures in respect of transactions with wholly owned subsidiaries;
- disclosures in respect of capital management; and
- the effects of new but not yet effective IFRS standards.

The exemption from disclosing key management personnel compensation has not been taken as there are no costs borne by the Company in respect of employees, and no related costs are recharged to the Company.

As the consolidated financial statements of National Grid plc, which are available from the registered office, include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 in respect of certain disclosures required by IFRS 13 'Fair value measurement' and the disclosures required by IFRS 7 'Financial instruments: Disclosures'.

The Company has adopted IFRS 9 and IFRS 15 with effect from 1 April 2018. The adoption of IFRS 9 has had no material impact and the adoption of IFRS 15 has had no impact on the Company.

There are no areas of judgement or key sources of estimation uncertainty that are considered to have a significant effect on the amounts recognised in the financial statements.

The balance sheet has been prepared in accordance with the Company's accounting policies approved by the Board and described below.

B. Fixed asset investments

Investments held as fixed assets are stated at cost less any provisions for impairment. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. Impairments are calculated such that the carrying value of the fixed asset investment is the lower of its cost or recoverable amount. Recoverable amount is the higher of its net realisable value and its value-in-use.

C. Tax

Current tax for the current and prior periods is provided at the amount expected to be paid or recovered using the tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is provided in full on temporary differences which result in an obligation at the balance sheet date to pay more tax, or the right to pay less tax, at a future date, at tax rates expected to apply when the temporary differences reverse based on tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date. Deferred tax is provided for using the balance sheet liability method and is recognised on temporary differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit.

Deferred tax assets are recognised to the extent that it is regarded as more likely than not that they will be recovered. Deferred tax assets and liabilities are not discounted.

Company accounting policies
continued

D. Foreign currencies

Transactions in currencies other than the functional currency of the Company are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at closing exchange rates. Gains and losses arising on retranslation of monetary assets and liabilities are included in the profit and loss account.

E. Financial instruments

The Company's accounting policies are the same as the Group's accounting policies under IFRS, namely IAS 32 'Financial Instruments: Presentation', IFRS 9 'Financial Instruments' from 1 April 2018, IAS 39 'Financial Instruments: Recognition and Measurement' for the comparatives and IFRS 7 'Financial Instruments: Disclosures'. The Company applies these policies only in respect of the financial instruments that it has, namely investments, derivative financial instruments, debtors, cash at bank and in hand, borrowings and creditors.

The policies are set out in notes 15, 17, 19, 20, 21 and 22 to the consolidated financial statements. The Company is taking the exemption for financial instruments disclosures, because IFRS 7 disclosures are given in notes 32 and 35 to the consolidated financial statements.

F. Hedge accounting

The Company applies the same accounting policy as the Group in respect of fair value hedges and cash flow hedges. This policy is set out in note 32 to the consolidated financial statements.

G. Parent Company guarantees

The Company has guaranteed the repayment of the principal sum, any associated premium and interest on specific loans due by certain subsidiary undertakings primarily to third parties. Such guarantees are accounted for by the Company as insurance contracts. In the event of default or non-performance by the subsidiary, a liability is recorded in accordance with IAS 37 with a corresponding increase in the carrying value of the investment.

H. Share awards to employees of subsidiary undertakings

The issuance by the Company to employees of its subsidiaries of a grant over the Company's options represents additional capital contributions by the Company to its subsidiaries. An additional investment in subsidiaries results in a corresponding increase in shareholders' equity. The additional capital contribution is based on the fair value of the option at the date of grant, allocated over the underlying grant's vesting period. Where payments are subsequently received from subsidiaries, these are accounted for as a return of a capital contribution and credited against the Company's investments in subsidiaries. The Company has no employees.

I. Dividends

Interim dividends are recognised when they are paid to the Company's shareholders. Final dividends are recognised when they are approved by shareholders.

J. Directors' remuneration

Full details of Directors' remuneration are disclosed on pages 69 – 90.

Company balance sheet
as at 31 March

	Notes	2019 £m	2018 £m
Fixed assets			
Investments	1	**9,923**	9,896
Current assets			
Debtors (amounts falling due within one year)	2	**12,625**	11,563
Debtors (amounts falling due after more than one year)	2	**358**	368
Investments	5	**895**	938
Cash at bank and in hand		**75**	–
Total current assets		**13,953**	12,869
Creditors (amounts falling due within one year)	3	**(15,529)**	(12,839)
Net current (liabilities)/assets		**(1,576)**	30
Total assets less current liabilities		**8,347**	9,926
Creditors (amounts falling due after more than one year)	3	**(2,648)**	(2,906)
Net assets		**5,699**	7,020
Equity			
Share capital	7	**458**	452
Share premium account		**1,314**	1,321
Cash flow hedge reserve		**1**	2
Other equity reserves		**380**	353
Profit and loss account	8	**3,546**	4,892
Total shareholders' equity		**5,699**	7,020

The Company's loss after tax for the year was £202 million (2018: £930 million profit). The financial statements of the Company on pages 189 – 195 were approved by the Board of Directors on 15 May 2019 and were signed on its behalf by:

Sir Peter Gershon Chairman
Andy Agg Chief Financial Officer

National Grid plc
Registered number: 4031152

Company statement of changes in equity
for the years ended 31 March

	Share capital £m	Share premium account £m	Cash flow hedge reserve £m	Other equity reserves £m	Profit and loss account £m	Total shareholders' equity £m
At 1 April 2017	449	1,324	11	337	9,438	11,559
Profit for the year	–	–	–	–	930	930
Other comprehensive loss for the year						
Transferred from equity in respect of cash flow hedges (net of tax)	–	–	(9)	–	–	(9)
Total comprehensive (loss)/income for the year	–	–	(9)	–	930	921
Other equity movements						
Scrip dividend-related share issue[1]	3	(3)	–	–	–	–
Purchase of treasury shares	–	–	–	–	(1,017)	(1,017)
Issue of treasury shares	–	–	–	–	33	33
Purchase of own shares	–	–	–	–	(5)	(5)
Share awards to employees of subsidiary undertakings	–	–	–	16	–	16
Equity dividends	–	–	–	–	(4,487)	(4,487)
At 31 March 2018	452	1,321	2	353	4,892	7,020
Loss for the year	–	–	–	–	(202)	(202)
Other comprehensive loss for the year						
Transferred from equity in respect of cash flow hedges (net of tax)	–	–	(1)	–	–	(1)
Total comprehensive loss for the year	–	–	(1)	–	(202)	(203)
Other equity movements						
Scrip dividend-related share issue[1]	6	(7)	–	–	–	(1)
Issue of treasury shares	–	–	–	–	18	18
Purchase of own shares	–	–	–	–	(2)	(2)
Share awards to employees of subsidiary undertakings	–	–	–	27	–	27
Equity dividends	–	–	–	–	(1,160)	(1,160)
At 31 March 2019	**458**	**1,314**	**1**	**380**	**3,546**	**5,699**

1. Included within the share premium account are costs associated with scrip dividends.

Notes to the Company financial statements

1. Fixed asset investments

	Shares in subsidiary undertakings £m
At 1 April 2017	8,880
Additions	1,016
At 31 March 2018	9,896
Additions	27
At 31 March 2019	**9,923**

During the year there was a capital contribution of £27 million (2018: £16 million) which represents the fair value of equity instruments granted to subsidiaries' employees arising from equity-settled employee share schemes. In the prior year, the Company acquired further ordinary shares of £1 each in National Grid (US) Holdings Limited for a total consideration of £1,000 million.

The Company's direct subsidiary undertakings as at 31 March 2019 were as follows: National Grid Holdings One plc; National Grid (US) Holdings Limited; and NGG Finance plc. The names of indirect subsidiary undertakings, joint ventures and associates are included in note 34 to the consolidated financial statements.

The Directors believe that the carrying value of the investments is supported by the fair value of their underlying net assets.

2. Debtors

	2019 £m	2018 £m
Amounts falling due within one year		
Derivative financial instruments (see note 4)	**110**	308
Amounts owed by subsidiary undertakings	**12,514**	11,254
Prepayments and accrued income	**1**	1
	12,625	11,563
Amounts falling due after more than one year		
Derivative financial instruments (see note 4)	**–**	18
Amounts owed by subsidiary undertakings	**358**	350
	358	368

The carrying values stated above are considered to represent the fair values of the assets. For the purposes of the impairment assessment, loans to subsidiary undertakings are considered low credit risk as the subsidiaries are solvent and are covered by the Group's liquidity arrangements.

3. Creditors

	2019 £m	2018 £m
Amounts falling due within one year		
Borrowings (see note 6)	**1,275**	781
Derivative financial instruments (see note 4)	**92**	187
Amounts owed to subsidiary undertakings	**14,104**	11,809
Other creditors	**58**	62
	15,529	12,839
Amounts falling due after more than one year		
Borrowings (see note 6)	**346**	773
Derivative financial instruments (see note 4)	**228**	41
Amounts owed to subsidiary undertakings	**2,074**	2,091
Deferred tax	**–**	1
	2,648	2,906
Amounts owed to subsidiary undertakings falling due after more than one year are repayable as follows:		
In 1 to 2 years	**1,077**	–
In 2 to 3 years	**–**	1,095
More than 5 years	**997**	996
	2,074	2,091

The carrying values stated above are considered to represent the fair values of the liabilities.

Notes to the Company financial statements continued

3. Creditors continued

A reconciliation of the movement in deferred tax in the year is shown below:

	Deferred tax £m
At 1 April 2017	3
Credited to equity	(2)
At 31 March 2018	1
Credited to equity	(1)
At 31 March 2019	**–**

4. Derivative financial instruments

The fair values of derivative financial instruments are:

	2019			2018		
	Assets £m	**Liabilities £m**	**Total £m**	Assets £m	Liabilities £m	Total £m
Amounts falling due within one year	**110**	**(92)**	**18**	308	(187)	121
Amounts falling due after more than one year	**–**	**(228)**	**(228)**	18	(41)	(23)
	110	**(320)**	**(210)**	326	(228)	98

For each class of derivative the notional contract[1] amounts are as follows:

	2019 £m	2018 £m
Interest rate swaps	**(1,208)**	(2,501)
Cross-currency interest rate swaps	**(2,900)**	(3,613)
Foreign exchange forward contracts	**(7,920)**	(13,929)
	(12,028)	(20,043)

1. The notional contract amounts of derivatives indicate the gross nominal value of transactions outstanding at the balance sheet date.

5. Investments

	2019 £m	2018 £m
Investments in short-term money funds	**672**	919
Managed investments in bonds	**–**	10
Restricted balances – collateral	**223**	9
	895	938

6. Borrowings

The following table analyses the Company's total borrowings:

	2019 £m	2018 £m
Amounts falling due within one year		
Bank loans	**–**	230
Bonds	**435**	551
Commercial paper	**840**	–
	1,275	781
Amounts falling due after more than one year		
Bonds	**346**	773
	1,621	1,554

The maturity of total borrowings is disclosed in note 21 to the consolidated financial statements. There are no differences in the maturities as calculated under IFRS or FRS 101 'Reduced Disclosure Framework'.

The notional amount of borrowings outstanding as at 31 March 2019 was £1,618 million (2018: £1,531 million).

7. Share capital

The called-up share capital amounting to £458 million (2018: £452 million) consists of 3,687,483,073 ordinary shares of $12^{204}/_{473}$ pence each (2018: 3,637,747,827 ordinary shares of $12^{204}/_{473}$ pence each). For further information on share capital, refer to note 27 of the consolidated financial statements.

8. Shareholders' equity and reserves

At 31 March 2019, the profit and loss account reserve stood at £3,546 million (2018: £4,892 million) of which £86 million (2018: £86 million) related to gains on intra-group transactions which were not distributable to shareholders. The Company bore no employee costs in either the current or prior year.

For further details of dividends paid and payable to shareholders, refer to note 9 of the consolidated financial statements.

In 2017/18, the Company recognised £950 million of dividend income from subsidiaries. In 2018/19, no such income was recognised and the Company continues to recognise a loss on intra-group financing arrangements.

9. Parent Company guarantees

The Company has guaranteed the repayment of the principal sum, any associated premium and interest on specific loans due by certain subsidiary undertakings primarily to third parties. At 31 March 2019, the sterling equivalent amounted to £2,152 million (2018: £2,398 million). The guarantees are for varying terms from less than one year to open-ended.

In addition, as part of the sectionalisation of the National Grid UK Pension Scheme on 1 January 2017, a guarantee of £1 billion has been provided to Section A. This payment is contingent on insolvency or on failure to pay pensions obligations to Section A and can be claimed against National Grid plc, National Grid Holdings One plc or Lattice Group Limited (up to £1 billion in total). Refer to note 25 of the consolidated financial statements.

10. Audit fees

The audit fee in respect of the Parent Company was £26,000 (2018: £25,000). Fees payable to Deloitte for non-audit services to the Company are not required to be disclosed as they are included within note 4 of the consolidated financial statements.