Satisfying the changing needs of our customers

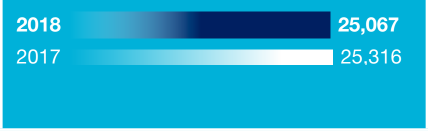
Annual Report and Accounts 2018

centrica

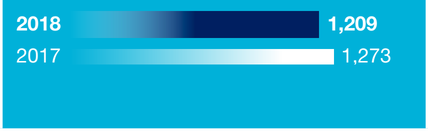
Group Highlights

Group Operational Performance

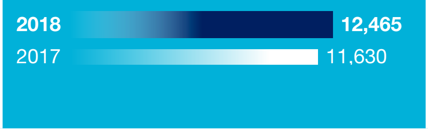
Total customer account holdings – Consumer (‘000)



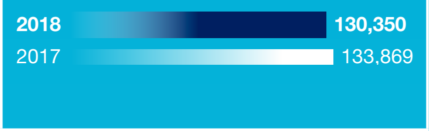
Total customer account holdings – Business (‘000)



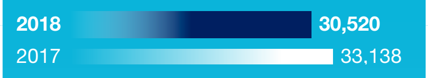
Total customer gas consumption (mmth)



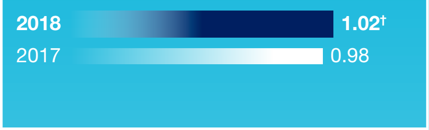
Total customer electricity consumption (GWh)



Direct Group headcount[2]



Total recordable injury frequency rate per 200,000 hours worked



Group Financial Summary

(Year ended 31 December 2018)

Group Revenue

£29.7bn

2017: £28.0bn
▲ 6%

Return on average capital employed (ROACE)

13%

2017: 14%
▼ 1ppt

Adjusted operating profit

£1,392m

2017: £1,247m[1]
▲ 12%

Statutory operating profit

£987m

2017: £481m[1]
▲ 105%

Adjusted earnings

£631m

2017: £693m[1]
▼ 9%

Statutory profit for the year attributable to shareholders

£183m

2017: £328m[1]
▼ 44%

Adjusted basic earning per share (EPS)

11.2p

2017: 12.5p[1]
▼ 10%

Statutory basic earning per share

3.3p

2017: 5.9p[1]
▼ 44%

Adjusted operating cash flow

£2,245m

2017: £2,069m
▲ 9%

Statutory net cash flow from operating activities

£1,934m

2017: £1,840m
▲ 5%

Group net debt

£2,656m

2017: £2,596m
▲ 2%

Net exceptional charge after taxation included in statutory profit

£235m

2017: £476m
▼ 51%

[1] Restated for adoption of IFRS 15: revenue from contracts with customers.

[2] Direct Group headcount excludes contractors, agency and outsourced staff.

Read more about our Key Performance Indicators
Pages 18 to 19

† We engaged PricewaterhouseCoopers (PwC) to undertake a limited assurance engagement over 19 metrics highlighted with the symbol ‘†’ throughout the Annual Report and Accounts 2018. See page 238 or centrica.com/assurance for more details.

Unless otherwise stated, all references to operating profit or loss, taxation, cash flow, earnings and earnings per share throughout the Strategic Report are adjusted figures, reconciled to their statutory equivalents in the Group Financial Review on pages 36 to 40. See also notes 2, 4 and 10 to the Financial Statements on pages 132 and 133, 136 to 143 and 151 and 152, for further details of these adjusted performance measures. In addition see pages 235 and 237 for an explanation and reconciliation of other adjusted performance measures used within this document.

Group Snapshot

The world of energy is changing and, with our chosen businesses, distinctive propositions and current capabilities, Centrica is well placed to deliver for its customers, shareholders and for society. We aim to be a good corporate citizen and an employer of choice.

Our areas of focus for growth are Energy Supply, Services, Connected Home, Distributed Energy & Power, Energy Marketing & Trading. We also have a material Exploration & Production division.

We supply energy and services to over 25 million customer accounts mainly in the UK, Ireland and North America through strong brands such as British Gas, all supported by around 15,000 engineers and technicians. We are focused on delivering high levels of customer service, engagement and loyalty.

Technology is increasingly important in the delivery of energy and services to our customers. We are developing innovative products, offers and solutions, underpinned by investment in technology. In 2017 we announced the creation of a new venture 'Centrica Innovations' to identify, incubate and accelerate new technologies and innovations.

At the end of 2017, phase one of Centrica's repositioning was complete. We have simplified our business and portfolio. We now have just three divisions – Centrica Consumer, Centrica Business and Exploration & Production. Our asset portfolio has been materially repositioned.

We have delivered cumulative annual savings of £940 million since 2015. 2018 exceptional restructuring charge of £170 million taking total exceptional restructuring costs 2016–18 to £486 million. We are seeing encouraging signs of progress in our customer-facing businesses. A further £250 million of savings are expected in 2019 taking cumulative annual savings relative to 2015 close to the £1.25 billion 2020 target.

Read more about Our Strategy
Pages 14 to 15

Read more about Our Business Model
Pages 16 to 17

Contents

Strategic Report

2 Centrica at a Glance
4 Chairman's Statement
8 Group Chief Executive's Statement
14 Our Strategy
16 Our Business Model
18 Key Performance Indicators
20 Business Review
28 Digital Transformation
30 Centrica Consumer
32 Centrica Business
34 Exploration & Production
36 Group Financial Review
41 Our Principal Risks and Uncertainties
52 Stakeholder Engagement
56 Delivering our Responsible Business Ambitions

Governance

66 Directors' and Corporate Governance Report
80 Committee Reports
90 Remuneration Report
110 Directors' and Corporate Governance Report – Other Statutory Information

Financial Statements

114 Independent Auditors' Report
124 Group Income Statement
125 Group Statement of Comprehensive Income
126 Group Statement of Changes in Equity
127 Group Balance Sheet
128 Group Cash Flow Statement
129 Notes to the Financial Statements
209 Company Financial Statements
211 Notes to the Company Financial Statements
220 Gas and Liquids Reserves (Unaudited)
221 Five Year Summary (Unaudited)
222 Ofgem Consolidated Segmental Statement

Other Information

234 Shareholder Information
235 Additional Information – Explanatory Notes (Unaudited)
238 Responsible Business – Performance Measures
IBC Glossary

Explore online
Visit our website to find out more:
centrica.com/ar18

@centricaplc

Centrica at a Glance

Our purpose

Providing energy and services to satisfy the changing needs of our customers.

Centrica Consumer

UK Home

Supplying competitive and reliable energy to residential customers in the UK, and providing innovative services and solutions that help to keep their homes warm and working.

Ireland

Supplying competitive and reliable energy and energy services to residential and business customers across Ireland.

North America Home

Supplying competitive and reliable energy and providing home services to customers in North America.

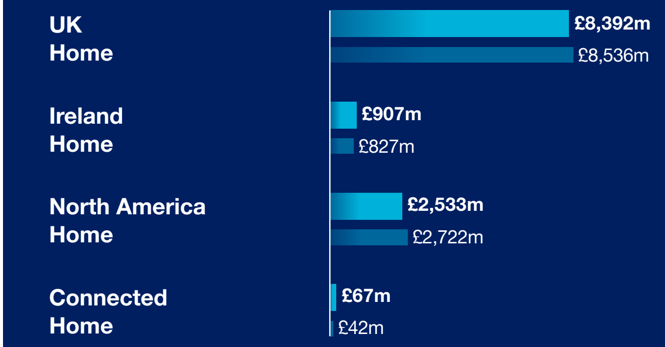
Connected Home

Helping customers get more from their homes, providing automation, energy management and peace of mind through our award-winning range of Hive connected home devices, software and services.

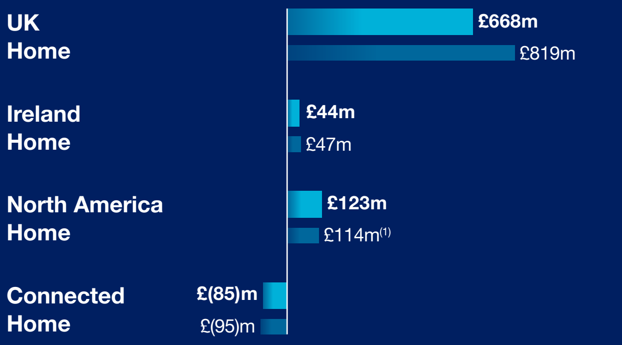
Read more about Centrica Consumer on
Pages 20 to 23 and 30 to 31

Our performance

Breakdown of gross revenue



Breakdown of adjusted operating profit/(loss)



(1) Restated for adoption of IFRS15: Revenue from contracts with customers

🟦 **2018 Figures**
▬ 2017 Figures

Centrica Business

UK Business

Supplying energy and services to a diverse range of business customers in the UK, using a variety of products tailored to meet their differing needs and help them more effectively manage their energy consumption and costs.

North America Business

Supplying competitive and reliable electricity and natural gas and energy services to retail and wholesale customers across North America.

Distributed Energy & Power

Providing industrial and commercial customers with the ability to use energy more intelligently, giving them the tools to generate and manage their energy usage under the Centrica Business Solutions brand.

Energy Marketing & Trading

Providing risk management and wholesale market access for the Group, building on strong cross-commodity trading capabilities and a global presence in LNG.

Central Power Generation

Generating power from our 20% interest in eight nuclear power stations in the UK and managing the output from a tolling arrangement with Spalding Power Station.

Read more about Centrica Business on
Pages 24 to 26 and 32 to 33

Exploration & Production

Spirit Energy

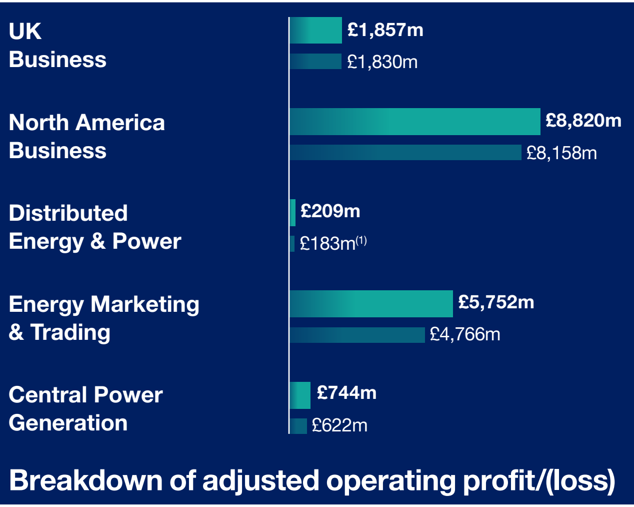
Targeting a sustainable, self-financing Exploration & Production (E&P) business, producing around 50 million barrels of oil equivalent a year, focused on the North Sea (the UK, the Netherlands, Norway and Denmark).

Centrica Storage

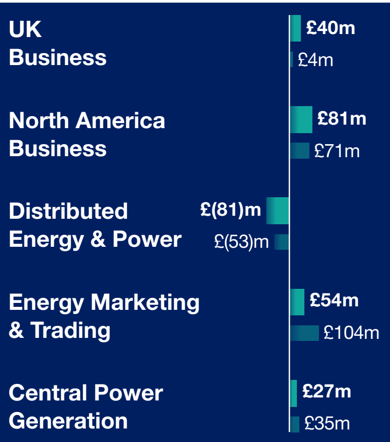
Operating the Rough gas field in the UK North Sea, which has been converted from a storage asset to a producing asset before decommissioning.

Read more about Exploration & Production on
Page 27 and pages 34 to 35

Breakdown of gross revenue



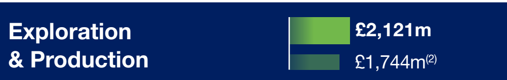
Breakdown of adjusted operating profit/(loss)



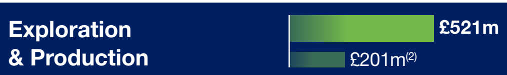
2018 Figures

2017 Figures

Breakdown of gross revenue



Breakdown of adjusted operating profit/(loss)



(1) Restated for adoption of IFRS15: Revenue from contracts with customers

(2) Restated to include Centrica Storage

2018 Figures

2017 Figures

Chairman's Statement

26,276

thousand customer accounts (includes 5,560 DE&P sites)

30,520

Direct Group headcount

After five years as Chairman of Centrica, this marks the end of my time helping to guide the destiny of this great company. So, I think it is a good moment to reflect on all that has happened and offer my perspective on the ways in which the energy markets, the political environment and the business have evolved over that time.

It has been a period of many changes and challenge, both externally and internally. The political tectonic plates have moved in ways that have proved very difficult to predict, culminating in Brexit in the UK and the election of President Trump in the US.

Since the Global Financial Crisis, public trust in business has steadily eroded. We in the corporate sector must shoulder our share of the blame for that. We certainly have not argued the case for business and free markets as effectively as we could have done.

Equally, governments and regulators, encouraged by pressure groups and the commissars of social media, have taken advantage of the prevailing mood to pursue interventionist and populist policies which have damaged investor sentiment and business confidence without achieving their purported objective of benefiting consumers to any great extent.

The business Zeitgeist has been that disruption is good. In many sectors, new entrants with new ways of working have undoubtedly brought benefits to consumers in the shape of increased choice and affordability. But there have also been unintended consequences – less secure employment, distorted markets, more tax avoidance and insufficient consideration of what healthy future enterprise ecosystems might comprise.

Meanwhile, Centrica continues to be exposed to commodity prices and weather which have experienced even greater volatility in recent times. Our control over the external environment is very limited.

This has been the unsettled context of my time at Centrica. The company I joined was very different from today's – a vertically integrated, more asset heavy, energy-focused conglomerate with a poor record of serving many of its customers. It was already apparent at the very beginning of my tenure that this resource-led business model, constructed at great cost, was unsustainable.

Something had to change if Centrica was to have a long-term future. So, we developed a new strategy which offered the chance to restore the Company to profitable growth. This involved re-engineering the business in mid-flight while the context around us was constantly changing.

The strategy we launched in 2015 was based on a reaffirmation of our core purpose "to provide energy and services to satisfy the changing needs of our customers". It consisted of three elements: reshaping the portfolio of businesses; becoming materially more efficient; and developing new engines of growth. We also sought to shift the Company's narrative and its relationship with stakeholders.

We have been largely successful in achieving the first and second elements. We have re-focused more investment on our customer-facing businesses and become simpler as an organisation, divesting many of our asset-based operations; we have developed new capabilities – in our traditional energy supply and services businesses, and in our newer distributed energy and connected home activities – as we adapt to a more decentralised energy market where advances in technology are placing control in the hands of our customers. We have also run a disciplined cost efficiency programme which has helped to protect our cash flow, credit rating and dividend over the past four years.

“We provide heat, light and essential services to millions of households and businesses; we help to secure vital energy supplies for the nation; we generate significant economic benefits through jobs, investment and our supply chain. This is a great business which I am confident has a great future.”

When it comes to the third element of our strategy – developing new engines of growth – we are not there yet, but the signs are encouraging. Our customer segmentation and proposition development capabilities have advanced beyond recognition in my time with the Company, while we have seen material growth rates in Connected Home and Distributed Energy & Power. This is evidence that we are evolving our offerings to meet the changing needs of our customers.

Improving our relationship with our stakeholders is also a work in progress.

We have made great efforts to provide a better service to our customers, with some encouraging results. Complaints are down in energy supply in all our geographies. But we still have a long way to go in rebuilding trust, which is essential if we are to retain customers in a world of price caps.

Our employees have been extremely loyal and hardworking through a time of constant change; a significant reduction in the number of posts across the business; the sale of assets; and the creation of new functions. I would like to thank every one of our people, not just for the past year, but for my entire time at Centrica. They are a credit to the business.

With the UK Government and regulator we have had our well known differences and we made clear our opposition to the price cap on all default tariffs. Although we accept the implementation of the cap and are now focused on continuing to serve our customers effectively under it, we have requested a judicial review of some of the assumptions which underly it. Whatever our disagreements, we have always tried to engage constructively with governments of any stripe and to behave as a good corporate citizen with a social conscience and a key contributor to the economic prosperity of the countries in which we operate.

For our shareholders the past few years have been a bumpy ride. But despite short-term setbacks and a historically challenging external environment, I am confident that our strategy is the best way to restore growth and ensure the survival of a great British business. It is difficult to see how sticking to Centrica’s old business model would have produced a better short-term or long-term outcome for our shareholders.

During my time in the boardroom we have found ourselves deep in discussion on a very wide range of topics. The strategic discussion never ends. Are we developing the cash flows and the disciplines that we need? What are our profitable growth prospects? Do we have the right capabilities? Is our remuneration structure and policy fit for purpose?

We have deliberated at length about the shifting skills base. We have made great efforts to develop the truly representative workforce which a 21st century organisation requires. We know that we need to push diversity harder to achieve that. This applies just as much in the boardroom as it does in the rest of the business.

Board succession and planning has been at the forefront of our minds in 2018 as numerous changes took effect which will significantly alter the dynamic of the Board for the next few years. We embrace the importance of diversity and inclusion in all Board recruitment and we support the recommendations of the Hampton-Alexander and Parker Reviews in relation to gender and ethnic diversity. We are actively seeking to achieve a broader, more diverse Board composition. But we acknowledge that we must improve our record in this area.

As part of a structured and continuous Board succession programme, three of our Executive Directors, Mark Hanafin, Jeff Bell and Mark Hodges, have stepped down from the Board and have been succeeded by Richard Hookway, Chris O’Shea and Sarwjit Sambhi, respectively. I would like to extend a warm welcome to Richard, Chris and Sarwjit and to thank Jeff, Mark and Mark for the valuable service they have given to Centrica.

I would also like to welcome two new Non-Executive Directors to the Board, Pam Kaur and Kevin O’Byrne. Pam joined the Board in February 2019 and has considerable experience of audit, compliance, finance and risk management which will be of significant benefit to the Board. Kevin, who brings a wealth of retail and finance experience, joins the Board in May 2019 and will succeed Margherita Della Valle as Chairman of the Audit Committee. Margherita will retire from the Board in May having completed her nine-year term in office. I would like to thank Margherita for her hard work and contribution to Centrica over that period.

Further information on all of these Board changes is set out in my Governance Statement and in the report of the Nomination Committee, both of which can be found in the Governance section of this Annual Report.

We also announced in December that, after 22 years with the Company, our Group General Counsel & Company Secretary, Grant Dawson, has elected to retire on 31 March 2019. Over a long career with the Company, Grant has been a valuable guide to the Board and executive team and a real servant of Centrica. He is succeeded by Justine Campbell, who has been at Centrica since 2013 and has in-depth legal and regulatory experience in both the energy and telecommunications sectors.

As you read this, as announced in May 2018 I will have departed my role as Chairman. It has been both a privilege and stimulating challenge to lead the Board. But now that our portfolio restructuring is coming to an end, I felt that it was the right time to go. We are fortunate to have in my successor Charles Berry someone ideally suited in talent, temperament and experience to guide the Board as Centrica returns to sustainable long-term growth and further develops its new narrative.

Last year I announced that I had asked our Non-Executive Director, Joan Gillman, to provide reassurance that the voice of our people is being heard loud and clear in the boardroom. I am pleased to say that Joan has been effective in doing this and I would like to thank her for her input in this key area.

Good employee engagement is vital for the future of Centrica. Without it, we cannot hope to serve our customers to the best of our ability or develop the attractive new propositions that we need to survive in such a competitive environment. In recent years, our record has been disappointing. Happily, our employee engagement scores improved in 2018, but remain well below where we want them to be. We must continue to do more to support our people.

As Centrica looks to the future, many questions remain to be answered. Can our mix of businesses grow? Can we remain competitive by continuing to drive efficiency gains? Can we rebuild the trust of customers in a world of price caps? Can we further improve our risk management and mitigation? Can we build the muscles and demonstrate agility to be able to respond to changed circumstances quicker and more effectively?

The answers to those questions are grounded in the strategy which we developed in 2015. We took a long, hard look at the Company and we felt that we had a duty to take this great Company and create a future for it.

We knew that market and political conditions would be turbulent and volatile, so we asked ourselves: "Is this a strategy that is good for all seasons?" I believe the answer to that question is "Yes", even with events that we could not have foreseen at the time, including Brexit.

We can argue about the nuances of the portfolio balance we have created. But we have preserved cash flow and the dividend and that speaks volumes. That by itself is not enough to prove the Company can grow. But we have laid the groundwork on which I am confident my successor will build.

I hope this marks a point where Centrica is on a far more positive footing. At a time when our national economy faces great uncertainty and emerging threats, it is worth reflecting on the importance of Centrica as a business for the UK. We provide heat, light and essential services to millions of households and businesses; we help to secure vital energy supplies for the nation; we generate significant economic benefits through jobs, investment and our supply chain. This is a great business which I am confident has a great future.

Rick Haythornthwaite
Chairman
20 February 2019

Read more about our workforce engagement on
Page 78

Introducing our new Chairman

“I have known Centrica since its inception over 20 years ago, first as a competitor when I was at Scottish Power, then during my time as chairman of Drax up to 2015.”

Charles Berry

So it is a special privilege for me to take on the role of Chairman at a company that I have long recognised and admired.

I have enjoyed starting to get under the bonnet of Centrica over the past few months by immersing myself in the business, visiting sites across the globe – from Staines to New Jersey – and familiarising myself with our activities: everything from energy supply and services, energy marketing and trading, to the innovations we are developing to benefit our customers.

What I have seen is richer and deeper than I expected – and my expectations were already high. I have witnessed the extensive commitment and quality of our colleagues and the diverse range of their capabilities. This is reassuring, given the challenges we face.

I have nearly a quarter of a century of personal experience in and around the energy sector. I hope to bring all this to bear in helping to craft a way forward for Centrica and supplementing the already considerable skills of my Board colleagues.

As a member of the steering group of the Hampton-Alexander Review, I am deeply committed to the need for and the benefits of diversity. There is strength in diversity, both at Board and team level, and Centrica is clearly focused on achieving that.

Rick has worked hard throughout his time as Chairman to refresh the Board and nurture its evolution. I’m delighted to welcome to the Board Pam Kaur and Kevin O’Byrne as our new Non-Executive Directors, Chris O’Shea, Sarwjit Sambhi and Richard Hookway as new Executive Directors and Justine Campbell as Group General Counsel & Company Secretary. I look forward to working with them all. I would also like to pay tribute to Rick for his calm and insightful leadership of the Board over the past six years.

It is a truism that we face serious challenges as a business. To my mind, none is greater than climate change. Extreme weather events around the world make it ever more evident that companies need to address this issue and it is clear to me that Centrica can make a big contribution.

We have developed new capabilities – such as Distributed Energy & Power – which are completely consistent with a more effective approach to tackling climate change. As a Group, we are strategically positioned to respond effectively to the three driving forces of change in our sector – decentralisation, digitisation and decarbonisation.

As I look forward to my time guiding the deliberations of the Board, I will also be looking to ensure that we continue to improve our engagement with all our stakeholders. In particular, in line with the UK’s new corporate governance code, which came into effect this year, Joan Gillman has taken on the role as designated Non-Executive for engagement with our employees.

It is important for you to know that we are not doing this simply to tick boxes, but because it is the right thing to do and will make the business stronger. I look forward to Joan developing her role and inputs to the Board through 2019 and beyond.

These are difficult times for businesses and Centrica is no exception. We face intensifying competition, political uncertainty and regulatory intervention. But I am confident that our range of capabilities and the skills of our people will ensure a bright and prosperous future for the Company. I very much look forward to being part of it.

Read more about Corporate Governance on
Pages 66 to 112

Group Chief Executive's Statement

0.06[†]

process safety incident frequency rate (Tier 1 and 2)

£248m

2018 efficiencies delivered

2018 was another year in which we had to navigate key uncertainties in our operating environment, including volatile commodity prices and an impending price cap in the UK energy market. Our focus has been on what we can control, driving underlying performance delivery and ensuring financial discipline as we continue to prioritise our resources towards satisfying the changing needs of our customers in energy and services. The Centrica team did all of this well and ensured we did not take our eyes off our top priorities of safety, compliance and of course improving the customer experience.

Ensuring the safety of our people, partners and customers is of huge importance to Centrica. We delivered a significant improvement in our process safety performance in 2018, particularly in our Morecambe and Centrica Storage operations, where we had 0.06[†] Tier 1 plus Tier 2 process safety events per 200,000 hours worked relative to 0.14 in 2017. This puts us in the top quartile of UK companies. Driving safety improved and customer injuries were reduced by over 10%. However, our personal and occupational safety performance did not improve overall with a total recordable injury frequency rate slightly higher than in 2017, due in large part to musculoskeletal injuries in our smart meter operations in the UK.

For our customers, across both Consumer and Business divisions, we have been focused on increased personalisation of offers, increased digitalisation of the customer experience and customer journeys, and provided new propositions and services which our customers clearly value. At the same time, enhanced segmentation has allowed us to place a stronger focus on customer lifetime value. In both divisions, we have continued to invest in customer service and our Net Promoter Scores have been stable.

For our shareholders, we remain committed to delivery of long-term shareholder value through returns and growth. We fully recognise that, following our disappointing Trading Update in November 2017, we began 2018 from a low base and once again the year had its fair share of challenges. From that starting point we did make some progress and in relative terms, Centrica's total shareholder return during the year was competitive when compared to the FTSE 100.

Our financial performance in 2018 was mixed. At the headline level, we delivered resilient performance with adjusted operating profit up 12% at £1.39 billion and adjusted operating cash flow and net debt within our target ranges. Adjusted operating cash flow was above the midpoint of our target range at £2.24 billion. However, volumes in Spirit Energy and Nuclear were disappointing and recovery in North America Business was slower than expected.

As we begin 2019, we face an unusual combination of headwinds including a larger than expected impact of the UK default tariff cap, continuing lower volumes in Exploration & Production and Nuclear, and higher forecast cash taxes. These headwinds will be partly offset by significant continuing efforts to drive cost efficiency. However, this means that, at prevailing forward commodity prices, our 2018–20 target range for average adjusted operating cash flow of £2.1–2.3 billion is under some pressure. In these circumstances, we are targeting adjusted operating cash flow in the range £1.8–2.0 billion at current forward commodity prices, which have fallen significantly over the past five months and assuming normal weather patterns. This means that on current projections, after the first two years of our 2018–20 three-year performance period, we would still be at or slightly below the bottom end of our target range. We did signal a year ago that there could be particular pressure in 2019, especially in the circumstances of a then-unknown price cap in the UK.

[†] Included in PwC's limited assurance engagement. See page 238 or centrica.com/assurance for more details.

“Our aim is to be an international 21st-century energy and services company and to deliver for the changing needs of our customers. There are clear signs that customers want more than energy supply alone, and combining energy supply with other services creates a valuable needs-based set of propositions for them.”

In response, we are taking actions to strengthen the balance sheet and improve the outlook for 2020, including driving cost efficiency hard, being disciplined in our capital spending, and targeting further divestments, and as a result, net debt levels remain underpinned.

In February we announced that we will be making additional non-core divestments totalling £500 million in 2019, starting with the agreed sale of our Clockwork Home Services portfolio in North America for £230 million. We expect capital reinvestment in 2019 to be around £1.0 billion as we drive quality and choice into our investments. We are also targeting £250 million of efficiencies in 2019 which would mean delivery of our 2020 target one year early. As a result of these actions, we expect to maintain Net Debt within our targeted 2018–20 range of £2.7–3.7 billion (which has been restated for the effects of IFRS 16). Finally, we are targeting further efficiencies of £500 million per annum beyond the end of 2019 as we pursue being “the most efficient price setter” in all of our markets. These actions will underpin our performance, resilience and competitiveness for the medium term.

This is a challenging start to 2019, and the environment and trading conditions for the rest of the year remain uncertain. We will know much more at the time of the Interim Results in July, including having a much clearer view of the likely outturn of commodity prices for 2019, market dynamics under the UK price cap and the performance of both the Nuclear fleet and Spirit Energy assets, including early indications from Spirit Energy’s drilling West of Shetland. We will also know more at that time about the prospects for a trade sale of our Nuclear investment.

Having reviewed our financial performance, let me turn to our strategy. Centrica’s strategy is built around the underlying trends of decentralisation and decarbonisation of the energy system, customers becoming more powerful and desiring new propositions, and digitalisation which continues to accelerate change in both energy and related services. We are responding by reshaping the Company to face that future and building the capabilities we need to respond to the changing energy landscape and to satisfy those changing needs of our customers. During 2018, we have continued to develop material new customer-facing capabilities in both Consumer and Business, exposing Centrica to an expanding opportunity-set in terms of customers, channels, propositions and geography. We have significantly deepened Centrica’s capabilities in technology, engineering and innovations which in turn are enabling new solutions for our customers. I recognise we have further work to do if we are to overcome some of the competitive pressures on the traditional energy supply businesses and net grow our customer-facing margins overall. However, we now have access to new growth opportunities outside our traditional, more mature markets and in many of our businesses we are seeing some encouraging indications of stabilisation and growth potential.

In Consumer, our digital transformation programme, which has resulted in more interactions taking place online, has helped to improve the overall customer experience, and our retention rates have shown an encouraging uplift. We have more than two million customers participating in our Rewards programmes, and in the UK this has led to a halving of customer churn. In UK Home energy supply, we saw a reduction of 742,000 customer accounts, slightly more than we had expected due to two price increases during 2018. Combined with the growth in Home Services and Connected Home, total customer accounts in Centrica Consumer fell by 248,000 over the year and in the second half of the year, the reduction was 23,000. This compares to a reduction of 1.4 million accounts in 2017. We saw net growth in consumer account relationships in our in-home services businesses in North America and also in the UK for the first time since 2010. Our total consumer relationships have therefore fallen by less than 1% out of over 25 million in total and we are gaining valuable new customers in products and services with attractive margins, many on a subscription basis. In Connected Home, the number of subscription customers more than doubled, revenue was up by 60% and we added 444,000 customers, close to our external target of 500,000 and in line with the sort of progress we would expect from a fast-growing business.

In the Business division, customer account numbers were down slightly, and within that, we have seen a good recovery in UK Business with new propositions driving growth in the small and medium enterprise customer segment. Across the division there was a focus on higher value segments in both the UK and North America. In Distributed Energy & Power, our leading indicators showed evidence of significant forward momentum during the year. The order book was up by 51% and order intake by 158% compared to 2017 and we grew revenue by 14%. The acquisitions that we made over the last few years – in areas including wireless energy insight and management (Panoramic Power), combined heat and power generation (ENER-G Cogen), demand-side response (REStore) and distributed energy management (Neas Energy) – continue to perform better than we had expected, and the capability that they have brought has enabled the creation of our Integrated Solutions Platform with a single user interface. North America Business profitability improved, recovering somewhat from the lows of 2017, but not as swiftly as we had expected. Competitive pressures in electricity retailing in the US remained strong and margins continued to be squeezed. Although total customer account holdings were down 65,000 during 2018, this partly reflects a focus on value over volume, as we optimise customer segments and sales channels.

Along with the undoubted progress, there have been disappointments, particularly in our asset businesses of Exploration & Production and UK Nuclear power generation.

In December 2017, Spirit Energy, in which we own 69%, was established as a separate company in partnership with Stadtwerke München. Oil and gas production from Spirit Energy in 2018 was lower than expected, reflecting unplanned outages and operational issues in both operated and non-operated fields. Our strong focus on process safety has resulted in marked improvement but resulted in longer outages before restarting our Morecambe field. In January 2019 it ran very well. We also are having to re-drill a key well in the Greater Markham area, and we experienced production availability and decline issues in key non-operated fields in both the UK and Norway. Centrica Storage became a producing asset in 2018 and performed very well, both in safety and production terms.

Although production was disappointing, we are encouraged by Spirit Energy's agreement to farm into Hurricane Energy's interest in the Greater Warwick Area and to fund a $180 million (£139 million) drilling campaign West of Shetland. Spirit Energy overall is now a sustainable, standalone European E&P operation. The immediate focus is on improving performance, strengthening the portfolio, and creating the option for new shareholding arrangements, either through further industry consolidation or potentially an IPO.

Centrica continues to have a non-operated 20% interest in the existing Nuclear generation fleet in the UK. Performance in Nuclear was affected by extended inspections and outages at the Hunterston B and Dungeness B power stations which resulted in lower output for the year. These issues, and associated regulatory oversight before the stations can re-start are extending into 2019. As part of our strategic repositioning, we announced our intention to divest our 20% stake in the UK's existing nuclear power fleet by the end of 2020, and a sales process is underway.

Moving from 2018 operations and turning to business development, we are continuing to ensure that we are well positioned to participate in the global natural gas market, and have a diversified portfolio of supplies, as well as the ability to optimise them. We have signed a sale and purchase agreement in strategic partnership with Tokyo Gas to jointly purchase 2.6 million tonnes per annum of liquified natural gas (LNG) from the Mozambique LNG project from the start-up of production until the early 2040s. This is the first long-term LNG procurement contract in Africa for both Tokyo Gas and Centrica. This innovative joint procurement approach takes full advantage of Mozambique's central location between Europe and Asia, assisting both Centrica and Tokyo Gas to proactively manage demand fluctuations across regions with different market dynamics. We have expanded North America Business through small acquisitions, including a portion of BP's US marketing operation and the retail energy provider Source Power & Gas. In Distributed Energy & Power we made two small acquisitions to expand our solar solutions capacity in the US. In Connected Home, we continued to expand our retail channels beyond the UK, with Hive

“We have refreshed our point of view on climate change and set out a new ambition to enable all our customers to use energy more sustainably.”

products now available for sale on Amazon in the United States, Canada, and in Italy and France. We are also expanding the product portfolio, launching propositions and services such as Hive Link focused on providing peace-of-mind to our customers.

Just as we are building new business, we must also have a strong focus on optimising our portfolio of businesses and ensuring we are delivering attractive returns from positions in which Centrica has a competitive advantage. We announced the intention to divest of a further £500 million of non-core positions, and as a first step have agreed the sale of our Clockwork franchise services business in North America for £230 million. Following a strategic review, we concluded that it has been hard for us to grow this business, to cross-sell other propositions through it, and that this branded portfolio would naturally fit with another owner intent on building a franchise business in the US. The sale of Clockwork will also help with our priority to simplify our portfolio of brands and channels, to make Centrica more coherent for our customers. We also plan to dispose of further non-core assets during the year, including possible capital recycling in both Exploration & Production and in Distributed Energy & Power.

Given the competitive pressures we are dealing with every day, we continue to have a very strong focus on being as efficient as we can be, so we can serve our customers well and be as competitive as possible. In our core cost efficiency programme we delivered a further £248 million of savings in 2018 plus additional savings in other areas of £38 million. That means we have now taken nearly £1 billion a year out of our like-for-like cost base since 2015. 2018 total controllable costs are 7% lower than in 2015, with the Group having more than absorbed the effects of inflation, foreign exchange movements and additional operating cost investment in growth.

We have much more to do in our efficiency programme and in 2019 we intend to deliver a further £250 million of savings. That means that we will have exceeded our 2020 target of an additional £500 million savings a year early. At our Preliminary Results in February, we announced a further £500 million per annum of additional efficiencies beyond the end of 2019 as we target becoming the “most efficient price setter” in all of our markets. Delivering on this would take our total like-for-like efficiency delivery relative to a 2015 baseline to £1.75 billion per annum by the end of 2021.

I would now like to turn briefly to the broader context in which we operate. The trends I outlined earlier, which we identified when we launched our new strategy in 2015, are even clearer today and are playing out in line with our views at the time. We are in step with where the energy world is going and the services which our customers desire, and we believe our 2015 strategy is still valid today and plays to the core strengths of the Company.

Our aim is to be an international 21st-century energy and services company and to deliver for the changing needs of our customers. There are clear signs that customers want more than energy supply alone, and combining energy supply with other services creates a valuable needs-based set of propositions for them. The evidence is clear that the unit gross margins of energy and services relationships are higher than in energy supply alone. That is what our strategy is all about – shifting the centre of gravity of our relationships with customers towards more value-added services. While there is much yet to be done, we are beginning to demonstrate our ability to become the customer-facing, international energy and services company that we set out to be when we launched our new strategy in 2015.

We have introduced a new set of Responsible Business targets as we respond to the changes in societal expectations. Our Responsible Business Ambitions set out long-term targets to enhance our impact in areas where we have the greatest responsibility and where we are well placed to make the biggest difference. Our strategy is to satisfy the changing needs of our customers, deliver long-term shareholder value through returns and growth, be a trusted corporate citizen, an employer of choice, and a 21st-century energy and services company. To live up to this, our key responsibilities include responding to the challenge of climate change, innovating to improve our customers' lives, developing our workforce to deliver for our customers in the long term and create stronger communities.

As part of this, we have refreshed our point of view on climate change and set out a new ambition "to enable all our customers to use energy more sustainably". Our actions will focus on three areas: helping our customers reduce emissions in line with the goals of the Paris Agreement; enabling a decarbonised energy system; and reducing our own emissions in line with Paris. We have clear ambitions out to 2030 in each of these areas, underpinned by shorter-term targets. For example, having reduced our own emissions by 80% over the last decade, we are targeting a further reduction in our internal carbon footprint of 35% from 2015 to 2025. We have other targets to help our customers reduce their emissions through both our direct and indirect actions, and to deliver flexible distributed and low carbon technologies and provide system access and optimisation services to them. In line with the Task Force on Climate-related Financial Disclosures (TCFD), we are committed to continuously improving our climate change disclosure to show how our strategy reduces risk and delivers a smooth transition to a lower carbon future.

We have devoted considerable effort to prepare for the UK exit from the EU, with a focus on the risks of a 'no deal' outcome for the Group and our customers. While the energy sector is likely to be less affected than some other parts of the UK economy, there are still some material issues for us, both financially and in ensuring business continuity. In financial terms, we are exposed like many others to a weakening of sterling, which would also impact the cost of energy for our customers.

In continuity terms, we have taken precautions such as increasing UK stocks of EU-sourced equipment to maintain customer service in the event of delays at UK ports. Our Energy Marketing & Trading business, which operates widely across Europe, also took measures to maintain those operations in a 'no deal' scenario.

We have many EU nationals who work for Centrica in the UK. So, we were pleased with the Government's proposals for Settled and Pre-Settled Status for EU nationals, which will apply even in a 'no deal' scenario, and the subsequent decision to waive any application fees. We warmly welcomed the EU Withdrawal Agreement provisions aimed at maintaining the Single Electricity Market on the island of Ireland, in which Bord Gáis Energy participates. We were also very pleased to see energy included within the scope of the proposed Political Declaration on the future UK relationship with the EU. This paves the way for further detailed negotiations after Brexit to maintain a close energy and climate relationship supporting cost-efficient, clean and secure supplies of energy.

Key events in 2018

January

Centrica Innovations invests in EtaGen

Read more about EtaGen on Page 60

February

Roll-out of Centrica Business Solutions in North America

March

Centrica announces expansion of Local Heroes to include painters, decorators, locksmiths and tilers

April

British Gas announces default tariffs to increase due to rising wholesale energy and policy costs

June

Tokyo Gas and Centrica sign Heads of Agreement

Centrica invests in Barrow Green Gas, the UK's largest green gas shipper

Read more in the Business Review on Page 26

July

Centrica Business Solutions launches in Ireland

Read more at centrica.com/ireland

The price cap on default energy tariffs in the UK came into effect on 1 January 2019. We regret that we were unable to persuade the Government and regulator not to implement the cap which we do not believe is a sustainable solution for the market, and is likely to have unintended consequences for customers and competition. We presented a clear alternative with our '14-point plan' to reform the retail energy market, which included a proposal to end all Standard Variable Tariffs and open-ended contracts, a step which we believe would benefit all consumers and which we have taken unilaterally for new customers.

Despite the significant near-term negative impact of the price cap on our earnings and cash flow, particularly in 2019, we are focused on delivering a sustainable and attractive business in UK energy supply and have already implemented a number of mitigating actions, including cost efficiencies of £20 per dual fuel energy supply customer by 2020. However, Ofgem's revision to the methodology for calculating supplier wholesale costs is expected to result in a one-off negative adjusted operating profit impact of around £70 million in the initial period of the cap in Q1 2019. In December, we announced we would be seeking judicial review of Ofgem's decision relating only to the treatment of wholesale cost transitional arrangements for the first period of the cap. Based on the normal timelines for judicial reviews we would expect the process to be concluded in six to nine months.

During 2018, we saw several significant changes in the leadership of Centrica, both at Board level and on our Executive Committee. I would like to welcome Charles Berry as Chairman and to thank Rick Haythornthwaite for his leadership of the Board over the last six years, and his guidance and support for me over the last four. I would also like to thank the outgoing Executive Directors – Mark Hodges, Mark Hanafin and Jeff Bell – for what we have achieved together.

Our new team is already in place, filled through both internal and external appointments. I am confident that we have the leadership needed to guide Centrica through the next phase of our development during 2019 and beyond.

Finally, I want to thank the whole Centrica team for the extraordinary amount of hard work which they have put into the business as they faced a very difficult set of circumstances, including uncertainty from continuing high levels of organisational change and cost reduction. Centrica's Values – Care, Collaboration, Courage, Agility and Delivery – are becoming broadly embedded in the organisation, helping to guide all of us as we work to create the excellent customer-facing company we all wish to be part of. As regards employee engagement, although I recognise that we still have a long way to go in making sure that everyone at Centrica feels truly valued, we focused strongly on our people's feedback from 2017 and I am pleased that we have improved our engagement scores. Improving employee engagement will remain an area of focus.

Iain Conn
Group Chief Executive
20 February 2019

August

Centrica closes contract for onshore wind farm in Sweden

Centrica invests in Driivz

Read more about Driivz on
Page 29

Centrica Storage secures new £120m contract for Easington gas terminal

Read more about Centrica Storage on
Page 35

September

Spirit Energy invests in discovery West of Shetland

Read more about Drilling for the future on
Page 34

October

Centrica completes two 50MW fast-response plants in Brigg and Peterborough

Direct Energy Business acquires Source Power & Gas LLC

Read more in the Business Review on
Page 25

British Gas receives Carbon Trust certification

Read more about Delivering our Responsible Business Ambitions on
Pages 60 to 61

November

Carers UK and Centrica announce new partnership

Read more about Delivering our Responsible Business Ambitions on
Page 58

Centrica wins contract for solar power in Denmark

Centrica supports new electric vehicle charging study in London

Read more at
centrica.com/charginglondon

December

Centrica launches support for renewable energy in Italy

Centrica completes one of the largest battery storage facilities in Europe, which has capability to hold power for 50,000 homes

Read more about Delivering our Responsible Business Ambitions on
Page 60

2019

Our Strategy

In 2015 our Strategic Review was founded on an analysis of market trends and sources of growth, and the capabilities and efficiency necessary to pursue them profitably.

To deliver for the changing needs of our customers

To deliver long-term shareholder value through returns and growth

To be a trusted corporate citizen

To be an employer of choice

To be a 21st century energy and services company

Strategic context

We identified three fundamental trends which are changing the energy landscape: decentralisation, shifting of power to the customer and digitisation.

Decentralisation

Globally, as a result of the need to tackle climate change, we require lower carbon and more efficient solutions. This is driving the energy system to become decentralised with technologies such as renewable generation, batteries, and demand response available and viable, close to the customer.

Power to the customer

As a result of increased choice and alternatives, the customer is becoming more powerful. Owning the relationship with customers and satisfying their needs is fundamental.

Digitisation

Technological developments, both physical and digital, are accelerating the pace of change. Capability in these areas is key to keeping up with customers and their changing needs.

These trends demand decentralised propositions, customer intimacy and service, agility and technology capability as the customer becomes increasingly powerful. That is why, at Centrica, our purpose is ‘to provide energy and services to satisfy the changing needs of our customers’, and this is at the heart of our strategy.

Our divisions

In 2017, we reorganised the Group around the customer, creating two new, customer-facing divisions: Centrica Consumer and Centrica Business, which address global customer needs that go beyond energy supply and target those areas where we have real competitive advantage. Alongside this, we refocused our Exploration & Production business.

Centrica Consumer

Market trends:

- Global demographic changes
- Adoption of technology
- Mobile first
- Self-service
- Traditional competitive boundaries blurring
- Growth of data and analytics

Customer needs:

- Value for money
- Solutions not just products
- Frictionless service
- Trusted brands
- Responsible use of data

Read more about Centrica Consumer on
Pages 20 to 23 and 28 to 31

Centrica Business

Market trends:

- Volumes per customer reducing
- Margins under pressure
- Gas becoming global
- Mega-trends impacting energy sector
- Electricity system becoming more local

Customer needs:

- Reduced cost and increased productivity
- Supply security and resilience
- An expert partner to guide them through complexity
- A trusted and credible counterpart
- Not to be distracted from their main activity

Read more about Centrica Business on
Pages 24 to 26, 28 to 29 and 32 to 33

Exploration & Production

Exploration & Production (E&P) is now more focused, providing diversity of cash flows and is a source of balance sheet strength. Following our divestment programme, the formation of Spirit Energy, and conversion of the Rough field to a producing asset, the E&P business is focused on Europe.

Read more about Exploration & Production on
Page 27 and pages 28 to 29 and 34 to 35

Strategic approach

To deliver the strategy we announced in July 2015, we set ourselves a number of medium-term objectives to 2020 and focus areas of long-term growth.

Our strategic objectives

- Customer-led growth
- Smaller and more focused E&P business
- £1.5 billion resource reallocation from E&P and Central Power Generation to customer-facing businesses 2015/20
- £1.25 billion p.a. efficiency programme delivery by the end of 2019 and a further £500 million p.a. beyond 2019
- Strong financial discipline within a clear framework
- Adjusted operating cash flow growth of 3-5% p.a.

Our focus areas for long-term growth

- Energy Supply
- Services
- Connected Home
- Distributed Energy & Power
- Energy Marketing & Trading

Section 172 Directors' Duties

The Directors continue to have regard to the interests of the Company's employees and other stakeholders, including the impact of its activities on the community, environment and the Company's reputation, when making decisions. The Directors, acting fairly between members, and acting in good faith, consider what is most likely to promote the success of the Company for its members in the long term.

Read more about our Stakeholder Engagement on
Pages 52 to 55

Read more about Delivering our Responsible Business Ambitions on
Pages 56 to 65

Read more about how we manage Risks on
Pages 41 to 51

Read more about our Governance on
Pages 66 to 112

Our Business Model

Our business model is designed to deliver returns and growth through a shift of resources toward our customer-facing businesses.

Our Energy Supply, Services, Connected Home, Distributed Energy & Power and Energy Marketing & Trading businesses are organised into two global customer-facing divisions; Centrica Consumer is designed to support the needs of residential consumers and Centrica Business is designed to support the needs of the business customer. Each division has a strategic framework built around five pillars and these are set out in the diagram below.

Our Central Power Generation business is included within the Centrica Business division, given its role in the management and optimisation of central power generation and its interface with wholesale markets.

Our customer-facing businesses are supported by the common operating functions of Customer Operations and Field Operations. These functions are where we interact with the customer and are fundamental to our success.

Our exploration and production businesses, Spirit Energy and Centrica Storage, are focused on Europe.

To ensure our model remains efficient and scalable, all businesses are supported by a number of centre-led Group Functions that are responsible for setting boundaries and standards which allow us to effectively manage risk and ensure a strong system of internal control.

Our strategic frameworks

Centrica Consumer

1. Energy supply
- Gas supply
- Electricity supply

2. In-home servicing
- Cover products (protection plans, warranties)
- On demand repair and maintenance
- Installation (heating and air con)

3. Peace of mind
- Home insurance
- Home security and monitoring
- Remote diagnostics

4. Home energy management
- Energy insight
- Energy efficiency
- Energy optimisation
- Energy solutions

5. Home automation
- Home control
- Appliance control

Centrica Business

1. Energy supply
- Gas supply
- Electricity supply

2. Wholesale energy
- Trading partner
- Energy commodities and risk products
- Central power generation

3. Energy insight
- Energy resource management and monitoring
- Operational insights from energy data
- Preventative maintenance

4. Energy optimisation
- Asset optimisation
- Aggregation and optimisation of distributed energy resources
- Access to energy, capacity and flexible markets

5. Energy solutions
- Multi-technology solutions
- Design, install, maintain and service
- Business services

Exploration & Production

1. Sustainable energy production

2. Cash flow diversity

3. Balance sheet strength

Our Group Priorities

We are focused on five key priorities to deliver our strategy and we align performance and risk management processes around these, including our Key Performance Indicators.

Read more about Our Strategy on
Pages 14 to 15

- Safety, compliance and conduct
- Customer satisfaction and operational excellence
- Cash flow growth and strategic momentum
- Cost efficiency and simplification
- People and building capability

Our Responsible Business Ambitions

We are determined to use our capabilities to make a positive impact. That is why in 2019, we are launching our 2030 Responsible Business Ambitions – a set of 15 goals that contribute to a more sustainable world. Our Ambitions are underpinned by our Responsible Business Foundations that ensure we operate with integrity.

Read more about Delivering our Responsible Business Ambitions on
Pages 56 to 65

We will focus on:

Delivering for our customers

Enabling all our customers to use energy more sustainably

Building the workforce of the future

Creating stronger communities

Our financial goals

Our financial goals are delivered through a clear financial framework that enables us to deliver long-term shareholder value through returns and growth.

The risks to achieving the Group's strategy are monitored and reported regularly. For more information on managing our exposure to risk see Our Principal Risks and Uncertainties on pages 41 to 51.

Our priorities also ensure that progress in delivering performance in Safety, Customer Satisfaction, Operational Excellence and People is a core part of the overall Group performance, which is then measured through individual employee scorecards.

Targets	Metric
Adjusted operating cash flow	• 3-5% underlying growth p.a. on average
Dividend	• Progressive in line with adjusted operating cash flow
Controllable costs[1]	• Operating cost growth < inflation
Capital re-investment	• Investment <70% of adjusted operating cash flow • Limited to £1.2 billion p.a. in 2018-20
Credit rating	• Strong investment grade (Baa1/BBB+ or above)
ROACE	• At least 10-12%

[1] Further information on controllable costs can be found in Additional Information – Explanatory Notes on page 235.

Key Performance Indicators

Our Key Performance Indicators (KPIs) help the Board and executive management assess performance against our Group Priorities.

Our Group Priorities

- Safety, compliance and conduct
- Customer satisfaction and operational excellence
- Cash flow growth and strategic momentum
- Cost efficiency and simplification
- People and building capability

Read more about Our Strategy
Pages 14 to 15

Read more about Remuneration
Pages 90 to 109

Read more about adjusted performance measures
Pages 235 to 237

Adjusted operating cash flow

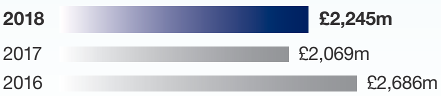
Adjusted operating cash flow is our key measure of financial performance and is one of the financial metric for the short-term incentive plan for our Executive Directors.

Adjusted operating cash flow was up 9% reflecting higher operating profit offset by working capital movements in the Energy, Marketing & Trading business.

Link to Remuneration:

Short and long-term incentive

Link to Group Priorities:



Adjusted operating profit

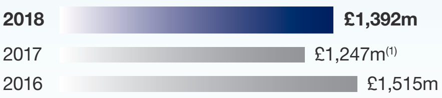
Adjusted operating profit is one of our fundamental financial measures.

Adjusted operating profit was up 12% reflecting increased profit in our Exploration & Production segment.

Link to Remuneration:

Short-term incentive[2]

Link to Group Priorities:



Adjusted basic earnings per share (EPS)

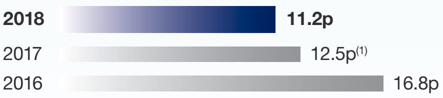
EPS is a standard measure of corporate profitability. EPS is adjusted to better reflect the underlying performance of the business.

Adjusted basic EPS was down 10%, reflecting the higher effective tax rate as a result of a greater proportion of the higher profit being in the Exploration & Production segment.

Link to Remuneration:

Long-term incentive

Link to Group Priorities:



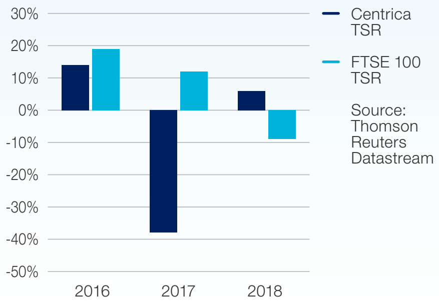
Total shareholder return (TSR) by year

The Board believes that TSR is a valuable KPI to assess the Company's performance in the delivery of shareholder value.

Link to Remuneration:

Long-term incentive

Link to Group Priorities:



Source: Thomson Reuters Datastream

[1] restated for the adoption of IFRS15: revenue from contracts with customers.

[2] Adjusted operating profit is further adjusted to a post-tax basis and a charge on capital is then applied to set the economic profit performance targets: see performance conditions relating to the long-term incentive plans vesting in 2018 on page 97 of the Remuneration Report.

Read more in our Other Statutory Information on
Pages 110 to 112

Total recordable injury frequency rate (TRIFR)

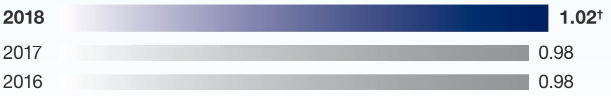
Safety is a top priority. Our TRIFR increased 4% per 200,000 hours worked, so we remain committed to securing an environment where an incident-free workplace is possible.

Link to Remuneration:

Long-term incentive

Link to Group Priorities:

⚠



Process safety incident frequency rate (Tier 1 and 2)

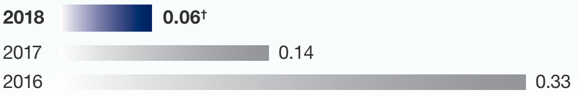
Our focus on process safety helps prevent major incidents where we source, generate and store energy. This has led to a 57% improvement per 200,000 hours worked.

Link to Remuneration:

Long-term incentive

Link to Group Priorities:

⚠



Brand Net Promoter Score (NPS)[(1)(2)]

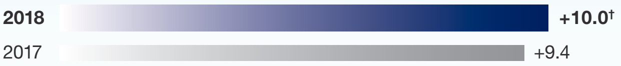
Everything we do is focused on satisfying the changing needs of our customers. Following improvements in customer service, our aggregated NPS score increased 0.6 points.

Link to Remuneration:

Long-term incentive

Link to Group Priorities:

👤



Complaints[(2)(3)]

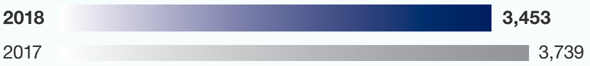
We strive to deliver an excellent service which is key to satisfying customers and reducing complaints. Our aggregated complaints per 100,000 customers reduced 8%.

Link to Remuneration:

Long-term incentive

Link to Group Priorities:

👤



Employee engagement[(4)]

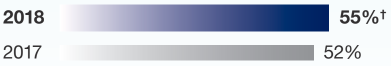
To ensure we have an engaged workforce, we seek feedback on what we are doing well and where we can improve. As a result, employee engagement increased 3%.

Link to Remuneration:

Long-term incentive

Link to Group Priorities:

✓



The KPI performance outcome associated with Executive Director remuneration is set out on page 97.

(1) Aggregated scores across UK Home, North America Home, Ireland, Connected Home, UK Business and North America Business weighted by customer numbers.

(2) Aggregated performance was not calculated in 2016.

(3) Aggregated scores across UK Home, North America Home, Ireland, UK Business and North America Business weighted by customer accounts.

(4) Due to changes in methodology, 2016 comparisons are not available.

Assurance

We engaged PricewaterhouseCoopers (PwC) to undertake a limited assurance engagement over 19 metrics highlighted with the symbol '†' throughout the Annual Report and Accounts 2018.

Read more about our responsible business performance and reporting guidelines on
Pages 56 to 65 and 238 to 240

Further details are available online at
centrica.com/assurance

Business Review

UK Home

Our UK Home business experienced continued high levels of competitive intensity and regulatory change during 2018, in addition to periods of volatile weather conditions and commodity prices.

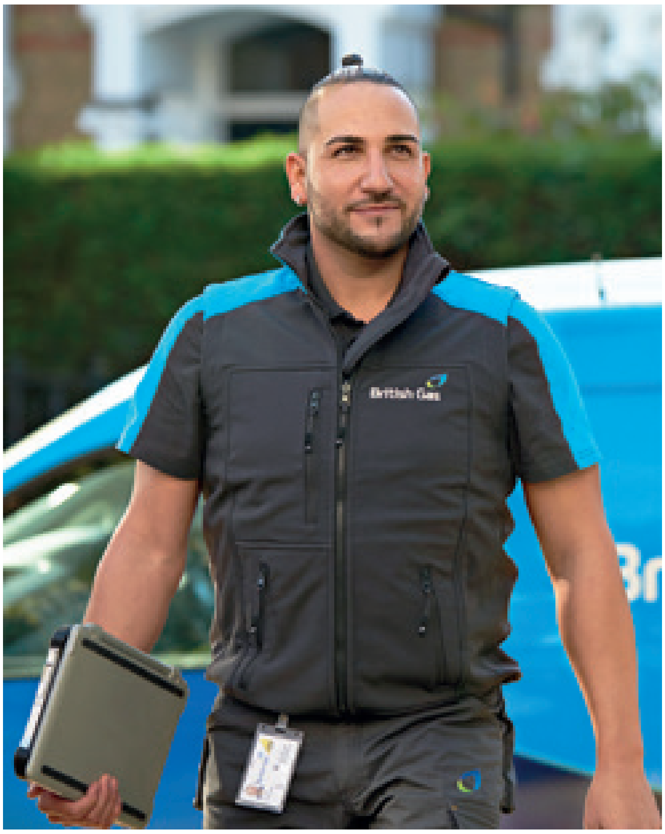
Reflecting these factors, UK Home adjusted operating profit was down 18%.

Energy account holdings reduced by 742,000 in 2018, largely reflecting the highly competitive nature of the residential supply market. The industry experienced record levels of switching in the year, with many customers moving to smaller suppliers, although we have seen some market consolidation following a number of smaller supplier failures in 2018. Despite the competitive pressures, the underlying rate of losses slowed compared to 2017, with 634,000 fewer net losses despite two increases in the Standard Variable Tariff (SVT) compared to one in 2017. We withdrew the SVT for new customers at the end of March, in line with the commitment we made in November 2017, and we ended the year with 2.2 million fewer SVT accounts. For those customers who switched tariffs, 440,000 accounts were moved onto the new safeguard tariff for vulnerable customers, with the remainder choosing to move onto alternative fixed-term offers. The number of fixed-term accounts remained broadly flat over the year while we also had 1.0 million accounts on our newly introduced Temporary Tariff.

Against the competitive backdrop, we continue to expand our range of offers and bundles in response to customer demand. In 2018 we launched and delivered new Online-Only, Tracker, Green, Electric Vehicle and Unlimited Usage energy tariffs, and expanded our range of energy tariffs bundled with services and connected home offers. Our British Gas Rewards programme now has 2 million customers signed up, with enrolled customer churn around half that of comparable non-Rewards customers. We are also using increasingly sophisticated customer propensity and customer value modelling to drive retention and growth within higher value segments.

Services accounts increased by 43,000 in 2018, the first full year of account growth since 2010, reflecting additional sales from bundled propositions attracting ‘new to services’ customers and growth from commercial partnerships. In addition, installs and on demand jobs increased by 15% relative to 2017, reflecting an increase in the number of boiler installations despite a flat market and the adverse impact on sales of warmer weather in H2 2018 compared to H2 2017. We’ve also seen further progress in the development of our on-demand platform, Local Heroes, which completed three times as many jobs in 2018 when compared to 2017.

Delivering high levels of customer service remains a core priority and energy supply complaints fell by 1% in 2018, remaining at low levels relative to the industry. This reflects enhancements to the customer experience, through the redevelopment of key customers journeys through digital transformation, the continued simplification of bills and the roll-out of our next generation mobile app. In services, we experienced an exceptionally high number of central heating boiler breakdowns due to cold weather in Q1, with peak breakdowns more than twice the normal weekly rate. This contributed to an increase in complaints of 52% in H1 2018, as appointments were rescheduled to clear the backlog. However, complaints returned closer to historic levels in H2 2018, resulting in a 30% increase for the whole year. Brand NPS was flat compared to 2017 as the progress made on improving service levels was offset by the impact of cold weather on services and negative sentiment towards energy suppliers.



We remain focused on delivering cost efficiencies to maintain a competitive pricing position. In 2018 we introduced Natural Language Call Steering which identifies key words to route customers to the most appropriate call agent. This is already having a positive impact on the customer experience and resulting in shorter calls and lower costs. In our field force we have invested in programmes to improve productivity, availability and first-time fix rates, and we have rolled out online self-help content to help our customers resolve minor issues remotely. We continue to invest in digital transformation, with improved functionality and performance on both our new customer app and our website, allowing customers to complete a wider range of transactions in a fast, convenient and secure way. The number of customers with an active online account grew 13% year on year and around 50% of all transactions were made through digital channels. Annualised cost per Home customer increased by 10%, driven by a greater mix of services customers, the additional costs in services due to the weather and the impact of lower energy account holdings, partly offset by efficiencies.

Overall UK Home adjusted operating profit was down 18%, with energy supply down 19% due to lower customer accounts holdings, the full year impact of the prepayment cap and higher imbalance costs reflecting a new industry settlement methodology. This outweighed progress made in delivering cost efficiencies. Services adjusted operating profit was 18% lower than 2017, with additional costs of around £20 million resulting from a record number of call outs associated with the cold weather in Q1, the impact of customer mix and investment in growth offset by cost efficiencies which accelerated in H2 and a higher number of boiler installations. UK Home adjusted operating cash flow reduced by 13% in 2018, broadly in line with the reduction in adjusted operating profit.

Ireland

Bord Gáis Energy performed well again in 2018, delivering an increase in customer account holdings and further improvements in customer service.

However, adjusted operating profit was impacted by an extended planned major maintenance outage at Whitegate in H1 2018, the first major overhaul since it was commissioned in 2010. The plant came back online in May and operated at improved efficiency levels over H2 2018 compared to 2017.

Customer account holdings increased by 12,000 with growth in both consumer and business accounts. This was reflective of our range of offers, brand positioning and continued improvement in customer service. We also continued to develop our range of innovative propositions, including an enhanced energy and services bundled offer, while our rewards programme remains key to attracting and retaining high value customer segments, with 44% of our domestic customers now signed up.

Improvements to customer service in 2018 were supported by enhancements to our customer-facing IT platforms, a focus on improving the quality of contact centre interactions and increased speed of response. These actions led to a 33% decline in complaints and a 16pt improvement in Brand NPS compared to 2017. These improvements came despite a spike in cold weather-related call volumes in Q1 2018 and regulatory changes requiring us to contact customers on the same tariff for more than three years to encourage them to check their tariff suitability. We also made additional progress in delivering cost efficiencies, with further improvements to our digital platform and a higher proportion of sales through our online channels.

Adjusted operating profit was down 6% year-on-year to £44 million and down 7% to €50 million in local currency, primarily due to the impact of the Whitegate outage, with the impact of higher costs resulting from rising commodity prices being broadly offset by the impact of our standard tariff price increase in August. Adjusted operating cash flow was up £12 million to £74 million, including the impact of a working capital prepayment in 2017 related to Whitegate.

North America Home

North America Home performed well in 2018, with a relative stabilisation in account holdings and continued good levels of customer satisfaction.

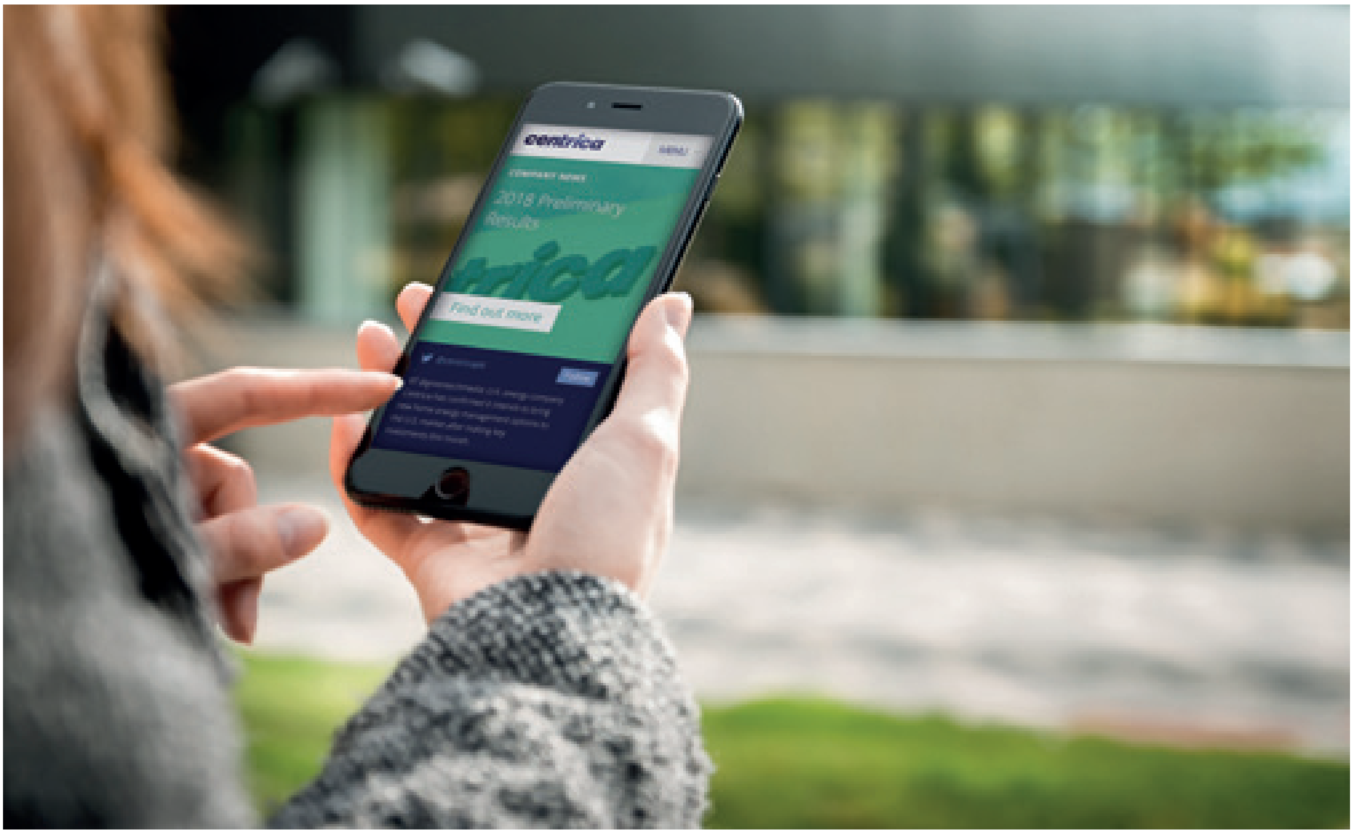
Adjusted operating profit grew for the third consecutive year despite more normal weather conditions for the energy supply business when compared to favourable conditions in 2017, largely reflecting the closure of the loss making residential solar business in H2 2017, adjusted gross margin growth in services and the delivery of further cost efficiencies.

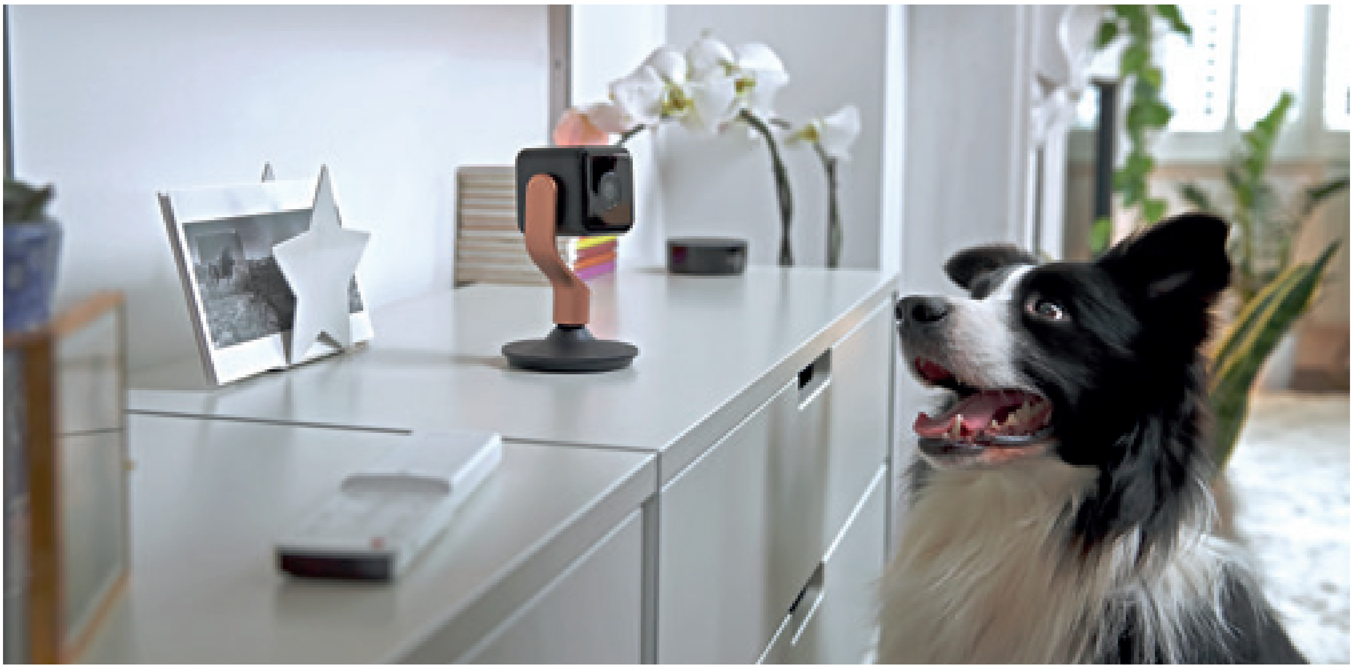
Energy account holdings reduced by 1% or 25,000 in 2018, compared to an 11% decline in 2017, with lower churn rates across all regions and a migration of customers from variable to fixed tariffs. Accounts in Texas fell by 4%, however our use of data analytics has allowed us to focus our acquisition and retention on customer segments with the highest estimated lifetime values. As a result, we delivered a significant increase in sales to higher value customers at a lower cost to acquire, and improved retention of more valuable customers on fixed price contracts. While regulatory scrutiny and competitive pressures in certain US North East markets remain a challenge, we won some profitable community aggregations and auctions, while account losses in Canada slowed as we rebuilt sales channels following our exit from door-to-door sales activity in 2017.

Services accounts increased by 3% or 23,000 in 2018, with further growth in Direct Energy paid protection plans. Services adjusted gross margin also improved as a result of more sophisticated customer segmentation-led pricing strategies and growth in our Airtron new residential construction business. We expanded our residential new construction offering with the acquisition in December of T.A. Kaiser Heating & Air, Inc., a multi-city HVAC installation, repair and maintenance company based in Indiana. We continue to focus on the development and offer of bundled propositions and in addition to energy and services bundles, we launched offers combining energy with Hive products and solutions and the Amazon Echo Dot smart device. We also expanded our energy only propositions to include a ‘time of use’ tariff.

We continue to make good progress on cost efficiency including through call centre consolidation, while we are also progressing a new services billing platform which is intended to enable further cost savings. Reflecting the delivery of efficiencies, and the mix impact of the closure of the residential solar business, annualised cost per North America Home account decreased by 4% compared to 2017. We also saw continued low levels of customer complaints and Brand NPS remained at a high level.

Adjusted operating profit was up 8% to £123 million compared to 2017, or up 11% to $165 million in local currency. This was largely due to reduced losses in the services business reflecting the closure of the loss-making residential solar business, growth in services and cost efficiencies. Energy adjusted operating profit was down 8%, or down 4% in local currency, with the impact of efficiencies largely offsetting the impact of lower customer accounts, a changed customer mix with more fixed price contracts and the impact of less favourable weather conditions. Adjusted operating cash flow increased by 21% to £187 million, or by 25% to $249 million in local currency, due to the increase in adjusted operating profit, the timing of tax cash flows and the lowering of the US rate of corporation tax.





Connected home

Connected Home delivered further growth in customers, product sales and revenue in 2018, building on its leading position in the UK while expanding its range of products, propositions and partnerships across core geographies.

The cumulative number of Hive customers increased by 49%, with 444,000 new customers joining Hive during 2018, while product sales of 1,194,000 were 37% higher than in 2017. This growth reflects the wider range of products available on the Hive ecosystem and existing customers taking more products due to increased familiarity with the Hive platform and App. The average number of Hive products per customer increased from 2.3 to 2.7 over the year and the average revenue per new customer increased by 34%.

During 2018, we launched a number of new products including the Hive View indoor and outdoor cameras, Hive Hub 360, GU10 and E14 lighting ranges and the integration of Philips Hue products. Customers also now have greater choice in how they control their home, with more Hive devices and features enabled for voice activation through Amazon Alexa, Google Home and IFTTT. In North America, the thermostat and lighting range also achieved Energy Star compliance, a government-backed initiative for energy efficient products. We have introduced several new propositions, including 'Cloud Storage' in the UK and North America, while in December we launched our connected care service 'Hive Link' in partnership with Carers UK, which helps provide peace of mind to people caring for friends or relatives. The launch of these propositions helped more than double the number of active subscriptions over the year, with 14% of Hive customers now on a subscription service compared to 10% in 2017.

Connected Home is also having a positive impact on the rest of the Consumer business units. The NPS of UK Home energy customers who have a Hive product is 13 points higher than those without, and we are also seeing improved retention rates for UK Home and North America Home services customers with Hive. 'Boiler IQ', a remote boiler monitoring product developed by Hive, is also improving first time fix rates for UK services customers.

Expanding our range of sales channels remains important, and during the year we launched several new partnerships. In April, we commenced our partnership with Italian energy company Eni Gas e luce. In May, we announced a partnership with EE in the UK, providing customers with the option to bundle Hive products with their mobile subscription. We also announced a partnership with Wave, a joint venture between Anglian Water and NWG Business, to provide our 'Leak Plan' as an offering to their customers. We continued to expand our retail channels, with our Hive products now available for sale on Amazon in United States, Canada, Italy and France, in addition to the UK.

We continue to focus on improving the customer experience and NPS remained high. During the year we upgraded the Hive App which now includes 'App Chat' customer services capability and enhanced 'Actions', giving customers greater local control and enabling personalisation of how their devices interact with each other. We also developed our technical infrastructure, enabling a more efficient and scalable platform with faster response times.

Gross revenue increased by 60% to £67 million, reflecting increased sales of our increasingly diverse product range to new and existing customers. Adjusted gross margin increased by 63% to £13 million, with the average adjusted gross margin percentage remaining at 19%, while the adjusted operating loss of £85 million was 11% lower than 2017 which also includes the impact of lower adjusted operating costs. Adjusted operating cash outflow was £74 million lower than in 2017, primarily due to a material purchase of inventory in 2017 in preparation for launch into new geographies.

UK Business

UK Business performed well in 2018, delivering improved operational performance, significantly lower level of complaints, and customer account growth in the higher value SME customer segment.

Adjusted operating profit increased, with higher adjusted gross margin and lower adjusted operating cost, as periods of cold weather in Q1 2018 were managed well and we experienced no repeat of the Q1 2017 additional costs resulting from commodity volatility and energy volume settlements.

Despite a competitive backdrop, with around 95 active competitors at the end of 2018 compared to around 70 at the start of 2017, SME customer accounts increased by 6,000, or 1%, during the year. This reflects enhancements to our customer offers through both direct and broker channels, including our online-only British Gas Lite tariff which has been designed around the needs of the smaller SME customers. Our retention and acquisition focus remains on the higher value SME segments and we have also seen further development of our services offers. The number of boiler installations for small businesses increased and we also delivered growth in bundled energy and services offers to customers.

I&C customer account holdings reduced by 10,000, or 9%, as we actively chose not to pursue the renewal of some low value multi-site customers, with our acquisition and retention efforts focused on higher volume customers who have a greater propensity to take our Distributed Energy & Power (DE&P) offers. During the year we signed an increasing number of contracts combining energy supply with our DE&P services, including CHP solutions and demand side response capabilities.

Operational performance has continued to improve resulting in better customer outcomes, with further improvements in billing accuracy and timeliness. The volume of calls fell by 105,000, or 11%, while customer complaints fell by 72% compared to 2017. In addition, the focus on improving our digital platform has resulted in online self-service levels increasing to 51% from 44% in 2017. These enhancements are also enabling us to deliver cost efficiencies as we continue to work to deliver a simpler and more efficient service for customers.

Adjusted operating profit was £40 million, compared to £4 million in 2017, primarily reflecting the absence of the 2017 additional costs from commodity volatility and further cost efficiencies. Adjusted operating cash flow decreased by 53% to £62 million, with UK Business having delivered material debt collection in 2017 associated with historic billing issues.

North America Business

North America Business faced continued challenging trading conditions in 2018, with continued high levels of competitive intensity and the expected squeeze on retail power margins resulting from the timing effect of power capacity charges in the US North East, which were higher in 2018 but are expected to be lower in subsequent years.

The business also experienced unfavourable weather conditions, which impacted power gross margin.

As a result, although power adjusted gross margin increased by 10% in local currency to $209 million, when excluding the impact of an $82 million one-off non-cash charge in 2017 relating to the historic recognition of unbilled power revenues, underlying power adjusted gross margin fell by 23%. We currently expect power adjusted gross margin to improve in 2019, in part reflecting the lower power capacity charges in future periods, and total net margin under contract for 2019 at the end of 2018 was higher than the net margin under contract for 2018 at the end of 2017. Total gas adjusted gross margin was down 3% to $334 million in local currency compared to 2017, with strong gas optimisation performance during a particularly cold January in the US North East offset by the impact of unfavourable weather conditions and two pipeline outages which limited optimisation opportunities in the second half of the year.

We remain focused on driving improvements in profit and returns and continuing to deliver high levels of customer satisfaction in North America Business and during the year implemented changes in our sales channel mix and products. Total customer account holdings were down 65,000 during 2018, reflecting our exit from the higher-cost door-to-door and third-party telesales sales channels. These are being replaced by lower-cost digital channels and during the year we also enhanced the web enrolment experience and our customer targeting model. In addition, our recently launched rewards programme, which is targeted at higher value SME customers, is helping enhance customer retention and customer lifetime value.

During 2018, we launched our Fixed Energy Plus offer, which is targeted at high consuming businesses. It gives customers access to real time usage through our PowerRadar application and alerts them when system load is peaking, allowing them to lower capacity charges in their energy bills by proactively reducing consumption. Since its launch we have continued to improve the offer to fit the needs of our customers, acting on feedback from brokers and customers. We also expanded our Energy Portfolio platform which gives customers direct access to our energy expertise while providing dynamic energy procurement options. North America Business continues to work closely with the Distributed Energy & Power business and is an important sales channel for distributed energy products.

We continue to focus on building our strong gas position in the US North East, in addition to expanding our offer into new geographies to diversify risk across the portfolio, and during the year we completed three small bolt-on acquisitions. In February, we acquired New Jersey Resources' retail natural gas business, which supplies around 45bcf of gas per year to customers in the US North East and Mid-Atlantic. In July, we acquired a portion of BP's US retail marketing operation, which supplies around 100bcf of gas per year to customers in Indiana, Kentucky, Tennessee and Ohio. In December, we completed the acquisition of Source Power & Gas, a retail energy provider serving 4,000 customers with an approximate annual load of 6.5TWh in Texas, Illinois, Ohio, New Jersey, Delaware, Maryland, Pennsylvania and the District of Columbia. Including the impact of these acquisitions, total gas consumption was up 19% compared to 2017, with power consumption flat.

North America Business adjusted operating profit increased by 14% to £81 million, or by 25% to $109 million in local currency. Excluding the impact of the 2017 one-off non-cash charge, adjusted operating profit fell by 39%, reflecting the unfavourable weather conditions and the squeeze on retail power margins. Adjusted operating cash flow was up 220% to £278 million, reflecting positive working capital movements, as we achieved structurally improved payment terms on our energy procurement contracts, and warmer than normal weather at the end of the year.

Distributed Energy & Power

We made significant progress in Distributed Energy & Power (DE&P) in 2018, utilising the enhanced capabilities that we have developed both organically and through acquisition over the past three years.

Our leading indicators of growth demonstrated significant momentum. Order intake was up 158% compared to 2017 and the secured order book increased by 51% to £559 million. Gross revenue was up 14%, below the level of secured order book growth reflecting the phasing of order book conversion, while the adjusted gross margin percentage increased to 24%.

Our investment in branding and developing our sales channels has contributed to strong growth in our international operations. All DE&P products are now under the Centrica Business Solutions brand, with a new digital marketing platform in place across all our geographies and we continue to utilise the customer relationships of our UK and North America Business divisions. We are running global marketing campaigns to target specific customer needs, and agreed sales partnerships with several global organisations, including WSP. Our North America and Rest of World businesses accounted for 68% of the secured order book at the end of 2018 compared to 50% at the end of 2017. In the UK, the secured order book remained broadly unchanged despite experiencing some impact on customer orders in Q4 2018 due to uncertainty surrounding the UK Capacity Market.

Our range of technology solutions offered to customers now includes solar, power generation, CHP, fuel cells and battery storage, in addition to optimisation and energy insight services. Increasingly we are selling multi-technology solutions coupled with optimisation, insight, financing and O&M services and we have a unique capability to develop multi-technology solutions at scale. In 2018, we launched our Integrated Solutions Platform (ISP) under the name Power Radar. This digital portal gives customers access to our products and solutions in one place and enables the combination of different technologies to develop new and differentiated products. We have moved over 4,000 customer sites onto the ISP.

In H2 2018 we completed the construction of two 49MW fast response gas-fired plants at Brigg and Peterborough and a 49MW battery storage facility at Roosecote, with all three assets performing well in early operation. The CCGT replant at Kings Lynn is also progressing to plan and is expected to be operational in H1 2019.

Continued revenue investment to drive long term value resulted in an increased adjusted operating loss of £81 million, despite the increase in adjusted gross margin. Having now scaled our cost base to deliver growth, we expect 2018 to be the year of peak losses as we target a further adjusted gross margin increase in 2019. We also recognised an exceptional cost of £18 million relating to the King's Lynn and Peterborough power stations following the suspension of the UK Capacity Market in November and reductions in clean spark spread price forecasts. Adjusted operating cash outflow was £31 million higher than in 2017, broadly in line with the increase in the adjusted operating loss.

Energy Marketing & Trading

The performance of our core Energy Marketing & Trading (EM&T) activities was strong in 2018, as we utilised our enhanced capabilities and asset positions to deliver a strong trading performance across North West Europe, particularly during periods of high market volatility associated with the exceptionally cold weather in Q1.

However, financial performance was impacted by our legacy gas contracts which generated losses, reflecting commodity price movements over recent years.

We continue to expand our route-to-market offering across Europe and now serve customers who own decentralised assets with contracted capacity of 13.8GW across a range of clean energy sources. In August we signed a 10-year agreement to provide balancing and power trading for the new 235MW Överturingen wind farm in Sweden. In November we signed a two-year contract for the balancing and trading of 469MW of renewables capacity from 87,000 homes and business sites across Denmark. In December, we announced an expansion of our route-to-market offerings into Italy by agreeing power purchase agreements (PPAs) with Glennmont Partners for the trading and balancing of 315MW of onshore wind farm capacity. In February 2019, we entered into a 15-year contract to trade and balance 76.7% of the electricity generated from the 950MW Moray offshore windfarm from the start of commercial operation which is scheduled for 2022. In addition, in June we announced a small direct investment in Barrow Green Gas, the UK's largest biomethane supplier and the only gas business in Great Britain focused solely on the green gas market, shipping almost half of the green gas used by British homes and businesses.

We continue to expand our global LNG presence in advance of the first gas delivery from our contract with Cheniere, which is expected in September 2019 from the Sabine Pass facility in Louisiana, with a second seven-year charter signed with GasLog Ltd in May for another 180,000 cubic meter LNG carrier. We are utilising our full range of trading, optimisation and operations capability and continue to transact multiple cargoes from a range of locations across the globe. In February 2019, alongside Tokyo Gas we jointly signed a sales and purchase agreement to purchase 2.6 million tonnes per annum, delivered ex-ship from the Mozambique LNG project from the start-up of production until the early 2040s. This follows the non-binding Heads of Agreement signed in June 2018 and is the first long-term offtake agreement from Africa for Centrica, in line with our strategy to diversify our sources of LNG.

EM&T's major flexible legacy gas contracts and associated hedges with 'take or pay' arrangements generated a loss of £53 million in 2018 compared to profit of £36 million in 2017. This primarily reflects the cessation of our two historically most profitable contracts in 2018, leaving one which expires in 2025 that is expected to be loss-making based on the current level of gas prices. The contract will continue to be managed as part of the EM&T portfolio as we look to utilise the contract optionality to capture favourable market conditions as and when they arise.

Full year adjusted operating profit in 2018 was £54 million, compared to £104 million in 2017. After excluding the impact of the flexible gas contracts, adjusted operating profit from our core EM&T activities rose 57% compared with 2017. This reflects the strong trading and optimisation performance during the cold weather in Q1. Adjusted operating cash outflow for the year was £66 million compared to an inflow of £262 million in 2017, reflecting the timing of cash flows associated with both the flexible gas contracts and core EM&T trading activities.

Central Power Generation

Having completed our exit from wind power generation in February 2017 and disposed of our large CCGTs at Humber and Langage in August 2017, the Central Power Generation segment now consists only of our 20% equity interest in the entity which owns and operates the eight nuclear power stations in the UK and the financial result of the tolling arrangement for the Spalding power station.

Nuclear generation volumes were 7% lower than in 2017, largely reflecting extended inspections and outages at the Hunterston B and Dungeness B plants. Both reactors at Dungeness and both reactors at Hunterston are currently expected to return to service during March and April.

Central Power Generation adjusted operating profit fell 23% to £27 million. This was driven by the lower Nuclear generation volumes, partially offset by a higher achieved power price and the impact of the disposal of the loss-making large CCGTs. We also recognised an exceptional cost of £44 million relating to an onerous contract provision on the Spalding tolling arrangement following the suspension of the UK Capacity Market in November and reductions in clean spark spread price forecasts. Adjusted operating cash flow reduced by 14% to £50 million due to lower Nuclear dividends, broadly in line with the reduction in adjusted operating profit.

Exploration & Production

Following the 2017 disposal of our assets in Canada and Trinidad and Tobago, our Exploration and Production division is wholly focused on North West Europe.

The division now consists of Spirit Energy, an entity formed in December 2017 which combined Centrica's E&P business with that of Bayerngas Norge, and CSL, which was granted consent by the Oil and Gas Authority (OGA) to produce indigenous gas and associated liquids from its Rough asset in January 2018. Reflecting both the consolidation of Spirit Energy and significant production from Rough, E&P delivered increased European volumes in 2018 despite lower than expected production from Spirit Energy. In addition, a higher wholesale commodity price environment resulted in increased achieved gas and liquids prices. As a result, both adjusted operating profit and adjusted operating cash flow were significantly higher when compared to 2017.

Total European gas and liquids production of 57.9mmboe was up 20% compared to 2017. Production of 11.2mmboe from Rough was at the top end of our expectations at the start of the year, reflecting good levels of asset availability over the period and the successful transition to medium-pressure operations in the fourth quarter from the initial free flow phase. However, Spirit Energy production of 46.7mmboe was lower than expected at the start of the year, reflecting a higher level of unplanned outages at Morecambe and operational issues across a number of other operated and non-operated fields.

Spirit Energy continues to focus investment on the most attractive developments in its portfolio. The operated Oda field, with an estimated 13mmboe of Spirit Energy 2P reserves, is progressing ahead of plan with first oil expected in Q1 2019. In May, a positive final investment decision was taken on the Nova oil field development, in which Spirit Energy has a 20% interest. Spirit Energy's share of the development cost is expected to be approximately NOK2,000m (£180 million), with the project expected to start up in 2021. In CSL, we were awarded a contract in August to process gas from the Tolmount field at the Easington terminal. This contract will extend the life of the terminal until at least 2030.

However, total Centrica share of 2P reserves declined from 275mmboe to 203mmboe in 2018, despite Nova adding 11mmboe reserves net to Centrica, reflecting production during the year and reserves downgrades at Maria due to reservoir performance and the downgrade of Hejre from 2P to 2C as the operator re-evaluates development options.

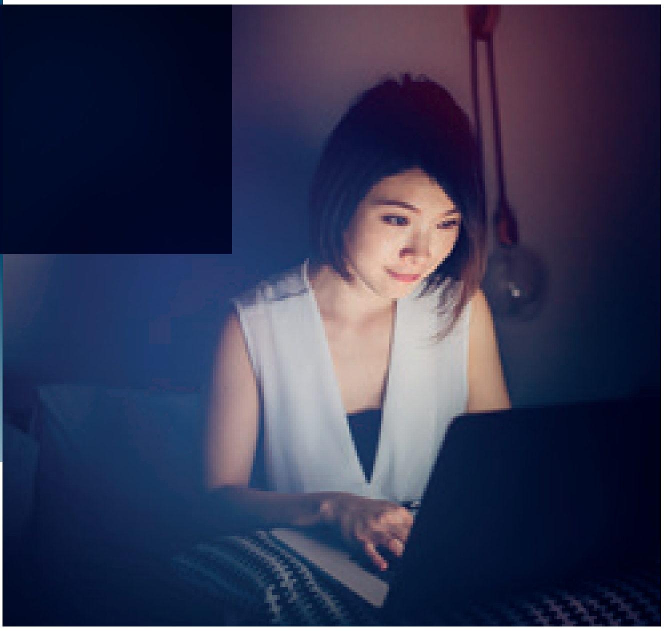
Although reserve replacement has been disappointing, overall resources for Spirit Energy have materially increased. In August, it was announced that Spirit Energy had farmed into 50% of Hurricane Energy's Greater Warwick Area, West of Shetland. Spirit Energy will fund a $180 million campaign to drill three wells and prepare for an extended well test, with a rig secured to commence drilling in Q2 2019. The wells will target the Lincoln discovery and the Warwick exploration prospect, which are estimated to hold 604mmboe gross 2C contingent resources and 935mmboe gross prospective resources respectively. Spirit Energy also experienced exploration success at the Hades/Iris and Lille Prinsen prospects with appraisal wells planned for 2019.

European lifting and other cash production costs were £14.3/boe, down 7% compared to 2017, driven primarily by the impact of a greater proportion of lower cost Rough production. Adjusted operating profit of £521 million was up materially compared to 2017, with the impact of higher volumes and achieved prices more than offsetting the impact of the disposal of the Americas assets in 2017. We also recognised a £90 million net impairment write-back of assets relating to certain UK and Norwegian fields reflecting an increase in near-term liquids prices partially offset by a reduction in long-term price forecasts, a movement in reserve estimates on one of the fields and a reduction in decommissioning provisions.

Adjusted operating cash flow was up 89% to £963 million, reflecting the higher operating profit and the favourable timing of tax payments. When combined with net investment of £480 million, E&P generated free cash flow of £483 million in 2018.

Demonstrating the next phase of our customer-focused strategy

We are transforming our offerings and services through technology and innovation to deliver for the changing needs of our customers and long-term shareholder value.



At Centrica, we are now in the second phase of our transition into a customer-facing, international energy and services company. This is what we set out to be when we unveiled our strategy in 2015 and we are beginning to demonstrate that transition. Our propositions and services are becoming more digitised, more decentralised and are focused on satisfying the changing needs of our customers as we help them to reduce their carbon footprint.

In the following pages, you can explore some of the case studies which demonstrate our transition and show where we have tried to make our purpose a reality in 2018. They provide key snapshots of the work we do across our three business divisions – Centrica Consumer, Centrica Business and Exploration & Production.

As we continue to refocus our business towards the customer, we're acutely conscious that advances in technology are creating new possibilities, almost by the day. So, we're undertaking a digital transformation of our business to make sure that we use technology effectively, both for the benefit of our customers and to make ourselves as efficient as possible.

Our aims in doing this are to improve customer service through innovation (there's a great example of this in our Home Warranty of America case study); to provide greater peace of mind for our customers, such as our Hive family of connected home products; to increase our operational efficiency; to improve our digital fluency – including digital skills training for every employee; to use data more effectively in creating real-time insights; and to put in place a common, robust technology foundation across the Group.

> **"There is clear evidence that we are starting to build momentum in our customer-facing businesses by providing the type of products and services that our customers value."**
>
> **Iain Conn**
> Group Chief Executive

Advances in technology are putting more choice and control in the hands of our customers. That means our relationship with them is changing. Our role now is to be more of an enabler (as with our customer Sappi, a leading international paper maker) and a partner (our work with Poole Hospital NHS Foundation Trust shows partnership in action).

Our changing role and digital transformation mean that it is essential for us to invest in the energy solutions of tomorrow and help our customers to reduce the amount of carbon they generate through new propositions and the application of advanced technology. The work of Centrica Innovations, our start-up investment arm, in developing an electric vehicle charging system – showcased opposite – is one example of how we are doing this.

We work in a very challenging market. But this is also a very exciting time of change for the energy sector. Our people are inspired and motivated by the new possibilities for serving our customers better. Our colleagues' care and commitment for our customers is demonstrated by how they went the extra mile during the 'Beast from the East'.

Investing in tomorrow's energy solutions for our customers

As technology plays an increasingly important role in meeting the needs of our customers, Centrica Innovations is incubating the new ideas which will become a part of their everyday lives. Centrica Innovations is backing an electric vehicle charging system which is already being used by 200,000 drivers around the world.

Electric vehicles (EV) are the future of road transport and are expected to account for one fifth of all new car sales by 2030. So, it's vital to create the networks and power infrastructure for drivers to recharge their vehicles conveniently – as important as petrol stations are for the cars and vans of today.

We see this as a potentially profitable area, and that's one of the reasons why Centrica Innovations (CI), our investment arm which specialises in incubating start-ups and innovative solutions, has invested in Driivz, a business which has developed world-class software for managing EV charging systems.

By combining Centrica's ability to install and manage charging networks with the state-of-the-art Driivz software, we can now provide our customers with one of the most effective, end-to-end vehicle charging solutions on the market. We plan to make it even stronger by integrating some of our existing capabilities in system monitoring and power load management with the Driivz system.

> **"The electric vehicle market is accelerating and Driivz gives us a powerful software tool to manage, operate and maintain charging infrastructure. By incorporating some of our other distributed energy technologies, we will be able to offer one of the most comprehensive charging solutions in the market."**
>
> **Charles Cameron**
> Director of Technology & Engineering, Centrica

Find out more on Driivz
centrica.com/driivzinvestment

200,000

vehicles already using the Driivz system

20%

EV share of new car sales by 2030

Centrica Consumer

Here for you when you need us most

Through the commitment of our people and digital transformation we are in a better position to meet our customers' needs.

Protecting our customers during the 'Beast from the East'

Thousands of our customers were hit by ferocious winter weather conditions. Faced with unprecedented demand for help, our colleagues showed unwavering commitment to keep them safe and warm.

From 28 February to 4 March 2018 blizzards, high winds, drifting snow and sub-zero temperatures caused major disruption across the length and breadth of the UK. The 'Beast from the East' brought some of the most testing weather conditions experienced for many years and created unprecedented demand from our customers.

We received three times as many calls as we would on a typical winter's day and customer breakdown demand was around 150% higher than usual, with many breakdowns caused by frozen external pipes. At the same time as this surge in customer demand, we had to close two of our call centres in Scotland, as colleagues were unable to get into work safely.

Despite the challenges faced, our people showed unfailing commitment to our customers, going above and beyond the call of duty to keep them safe and warm, and living up to Our Values of Care, Courage and Collaboration.

While we could not get to every customer as quickly as we would have liked, the office teams and field managers worked tirelessly to help customers fix their own problems if possible and direct them to self-fix videos on social media platforms. Over 6,000 fan heaters were distributed to vulnerable customers, making sure they had a temporary heat source until an engineer could get to them.

Self-fix videos

Find out more: Preparing for heavy snow
centrica.com/preparingforsnow

Find out more: How to thaw a condensate pipe
centrica.com/condensatepipe

#winterheroes

Engineer Steve Jackson walked for more than a mile through the snow with his tools in a backpack to reconnect a customer who had been without heat and water for two days. He then walked back to his van and made more customer visits. Steve walked home at the end of the day after having to abandon his van in the snow.

Dave Shipp
@daveshipp19 @BritishGas Your engineer Steve (17249) has just repaired our boiler. What a hero! Walked some distance in -12 to get here. Fantastic. Thank you.

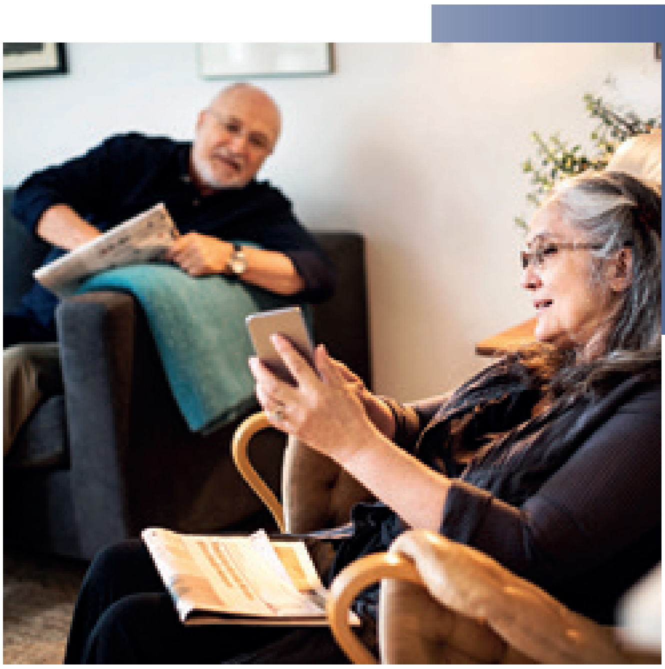
02 Mar 2018

Jackie Robertson worked two unscheduled nightshifts at her customer contact centre, in addition to her normal dayshift.

> **"I always think 'What if that's my mum or dad that's struggling'. Especially in that weather if they can't get their gas on. I put myself in their shoes. I wouldn't want them left with nothing."**
>
> **Jackie Robertson**
> Customer Service Advisor

500,000
incoming calls from customers in one 45-minute period

150%
increase in boiler breakdown demand



65%

reduction in time to service each claim

25%

reduction in calls per claim

30%

increase in renewals

> "Good prompt service. All issues always resolved in a timely and professional manner. Automated claims process online is awesome!!"
>
> **Sandra Pate**
> Customer

Transforming customer experience at Home Warranty of America

Leah Barton – Vice President, Home Protection, at Centrica Consumer – explained HWA's drive to provide better service to customers who make claims for home repairs and breakdowns.

Unexpected issues at home are stressful. Something has gone wrong; your family is affected, and you want to make things right as quickly as possible. With our new claims system, we're able to get the right contractor to a customer's home, communicate more clearly to them and get their homes back in order quickly.

If you go back 18 months, our customer experience was not where we wanted it to be. The problem was that when a customer placed a claim, it would be assigned to an independent contractor – with little visibility to the customer or to us about whether the job would be accepted, or what the claim status was as it progressed. This resulted in frequent customer calls and long times to service – not the effortless experience we desired.

We decided we had to fix it. In mid-2018 we launched a new online automated claims system. Now, our customers receive a link to track the status of their claim online. It's easier for contractors to accept jobs and communicate with us, and we can take action if we don't see a claim progressing smoothly.

As a result, we've seen a reduction in time to service and in the number of touchpoints required to resolve a claim. Customers are calling us less often and getting their issues resolved more quickly. The better service has also helped our efforts to improve renewal rates, which are up from 35% last year to over 45% now.

Everyone's happier. We have a much clearer understanding across our customers, contractors, contact centre agents and back office colleagues about what's happening at any given time.

WE'VE GOT YOU COVERED.
HWA Home Warranty
Home Warranty of America, Inc. (HWA) provides high value and protection against the high costs of home and appliance repair. Check us out on Facebook too!
Tweets
Tweets & replies
Media
Likes
HWA Home Warranty

> "The electrician went above and beyond in evaluating not only for the issue I called him out on but also on things he noticed that I should know. SUPER JOB!"
>
> **Larry Wallace**
> Customer

Centrica Business

A trusted energy partner for business customers

We supply the energy and solutions to help our business customers operate more efficiently and sustainably to achieve commercial success.

How we helped a valued customer to make the most out of saving energy

Centrica Business Solutions enabled paper maker Sappi to double its earnings from Demand Side Response (DSR), where companies can receive payments from the grid operator for reducing energy consumption at peak times.

Sappi is the world's leading producer of high-quality coated fine paper, making 5.7 million tonnes a year. It's a very energy-intensive process, so the company cuts its electricity costs by participating in DSR programmes.

That's what Sappi was doing at its combined pulp and paper mill at Lanaken in Belgium. But the results were disappointing. It wasn't getting a high enough return to offset rising electricity costs. Fortunately, Centrica Business Solutions was able to help.

To earn higher returns, Sappi needed to achieve much faster reaction times – just 30 seconds – when called on to reduce consumption. All this while avoiding any impact on day-to-day operations.

Our solution focused on the pulp mill. Because it produces pulp which is then held in stock, it can be halted at times without affecting paper production downstream.

> "This technology and portfolio solution allowed us to leverage our flexible processes and to double our annual Demand Side Response earnings."
>
> **Christiaan Geers**
> Manager RM/Utilities, Sappi Lanaken

> "Sappi is a long-standing customer with whom we have built an excellent, close relationship. That's very important. We are always thinking about what's next for the business in terms of processes, flexibility and optimisation."
>
> **Jeroen Verbeeck**
> Sales Manager, Centrica Business Solutions

We installed our technology, which enables ultra-fast automated response. We placed Sappi in a portfolio of providers, which reduces the risk of being called upon by the grid when it's not convenient. And we safeguarded paper production by monitoring stocks of pulp and making sure they didn't get too low.

The result: greatly increased DSR payments for Sappi with no impact on production.

30
seconds response time

Zero
impact on production

100%
increase in DSR payments

Welcome to
Poole Hospital
NHS

£420,000
annual cost savings

23%
reduction in CO_2

15 years
energy performance contract

> "The partnership with Centrica Business Solutions gives us the peace of mind that our energy needs are being taken care of while we concentrate on our main job of looking after patients and improving care."
>
> **George Atkinson**
> Associate Director of Estates, Poole Hospital NHS Foundation Trust

Forging a partnership in patient care

How we helped a major hospital to cut its energy costs and meet tough new environmental targets.

Poole Hospital NHS Foundation Trust is a large, acute general hospital on the south coast of England. Saddled with ageing equipment and a maintenance backlog, it was struggling to manage its energy needs.

But by working in partnership with Centrica Business Solutions, the Trust was able to make major upgrades which will cut costs and energy consumption, while releasing funds for investment in the most important thing – patient care.

The £6.7 million project included a new Combined Heat and Power (CHP) unit, new standby generator and controls, steam generators and boilers, an upgraded air handling unit, and improved lighting both internally and externally.

Some of the results were immediate. Overall energy demand at the hospital fell by 29%. The project is expected to deliver annual cost savings of £420,000, and a carbon reduction of 23%. And the savings are expected to grow every year in line with fuel costs and carbon targets.

Poole Hospital now has a fit-for-purpose energy infrastructure that it can depend on for decades to come. What's more, we handed over the project on time and with no interruption to clinical services.

> "The challenge was to deliver the project efficiently and safely (which we did). We didn't look on the scheme purely as a business venture, but more as a partnership where we could help the Trust to achieve its goals."
>
> **Paul Murray**
> Account Manager, Centrica Business Solutions

Find out more on Distributed Energy: Powering the future of healthcare at
centrica.com/poweringhealthcare

Exploration & Production

Securing energy supplies for the future

Our more focused Exploration & Production division is exploring new prospects and breathing new life into existing assets.

Drilling for the future West of Shetland

A new offshore prospect has the potential to double Spirit Energy's current production.

In its first major deal as a newly created business, Spirit Energy is funding a $180 million (£139 million) drilling campaign in the 'frontier' region 60 miles West of Shetland, seeking to exploit oil stored in a non-traditional rock formation, a 'fractured basement'. The project could transform the business, as well as securing important new energy supplies for UK customers.

In fractured basins, oil resides within cracks in the volcanic rock, unlike more conventional UK reservoirs where it's found in the pores of sandstone rock.

This opportunity has the potential to be one of the last world-class developments in the UK, holding an estimated 2 billion barrels of oil across four licences. In everyday terms, that's the same sort of size as Centrica's Morecambe Bay field, which at its peak produced enough gas to supply a fifth of all UK households.

Working with Hurricane Energy, the licence operator, three test wells will be drilled into two of the licences, Warwick and Lincoln. If the tests are successful, and the field moves towards full development, Spirit Energy will become the licence operator, cementing its position as one of Europe's leading oil and gas companies.

2 billion

estimated barrels of oil

> "It's not often that you get the opportunity to work on something like this. It could become the cornerstone asset of Spirit Energy for the next 20 years."

Viv Harvey
Manager Geology (TA), Spirit Energy

Fractured basement production presents a new opportunity for Spirit Energy and for the UK.

Example of a similar rock formation in the Shetlands

80

jobs safeguarded

2.5m

UK homes supplied with gas

New lease of life until 2030 and beyond

How we're working with others to secure the future of one of the UK's key gas processing sites.

In 2018 Centrica Storage Limited (CSL) won a landmark contract worth more than £200 million to process gas from the Tolmount field, one of the biggest recent discoveries in the Southern North Sea.

> "Tolmount marks a significant milestone for the future of the Easington terminal and clearly shows CSL is open for business as a gas processing hub for the Southern North Sea gas basin."
>
> **Greg McKenna**
> Chief executive officer, CSL

The contract will extend the life of our Easington gas terminal until at least 2030, safeguarding around 80 jobs. With production from the former storage facility at Rough due to run out by 2022, securing this contract was vital to the future of Easington.

The Tolmount field development project – a joint venture between HGS, Premier Oil and Dana Petroleum – could produce enough gas to supply around 2.5 million UK homes for 10 to 15 years. So, Easington will play a key part in keeping UK customers supplied with gas for many years to come.

Hundreds more jobs will be created over the next two years as extensive modifications are made to the terminal to receive and process the gas, which will arrive through a new pipeline. The Tolmount platform will be an unmanned facility which CSL will control remotely from Easington.

> "From the outset we were impressed by the 'can-do' mentality of the Centrica Storage team as well as their management of the existing facilities. Together we completed detailed and complex negotiations in record time, enabling our Tolmount gas field to be sanctioned and breathing new life into the Easington terminal."
>
> **Robin Allan**
> Chief operating officer, Premier Oil

Group Financial Review

"In addition to the interim dividend of 3.6p per share, the proposed final dividend is 8.4p, giving a total full year dividend of 12.0p (2017: 12.0p)."

Chris O'Shea
Group Chief Financial Officer

Group Revenue

£29.7bn

2017: £28.0bn
▲ 6%

Full year dividend per share

12.0p

2017: 12.0p

Adjusted operating profit

£1,392m

2017: £1,247m
▲ 12%

Statutory operating profit

£987m

2017: £481m
▲ 105%

Statutory profit attributable to shareholders

£183m

2017: £328m
▼ 44%

Adjusted effective tax rate

41%

2017: 22%
▲ 19%

Adjusted basic earning per share (EPS)

11.2p

2017: 12.6p
▼ 9%

Statutory basic earning per share (EPS)

3.3p

2017: 6.0p
▼ 44%

Group revenue

Group revenue increased by £1.7 billion, or 6%, to £29.7 billion (2017: £28.0 billion). This was largely due to a £1.8 billion, or 12%, increase in Centrica Business, reflecting increased activity in Energy Marketing and Trading and increased gas sales volumes in North America Business. Centrica Consumer Group revenue fell by £0.2 billion largely due to the impact of lower energy customer accounts, and Exploration and Production Group revenue was broadly flat.

Operating profit

Statutory operating profit was £987 million (2017: £481 million). Adjusted operating profit was £1,392 million (2017: £1,247 million). A table summary reconciling the different profit measures is shown below.

Total adjusted operating profit increased 12% to £1,392 million (2017: £1,247 million). Centrica Consumer profit fell 15% with lower profit in UK Home reflecting the impacts of the UK energy prepayment tariff cap, lower energy account holdings, increased imbalance costs and high levels of central heating breakdown call-outs in UK Home services in Q1.

Centrica Business profit fell by 25%, due to the impact of continued retail power margin pressures in North America Business, legacy gas contracts in EM&T becoming loss-making and an increased loss in DE&P reflecting continued investment in growth. These impacts were partially offset by the improved performance from UK Business and the £62 million one-off charge in North America Business not being repeated. Profit from E&P increased 159%, benefiting from the transition of Rough from a storage facility to a production asset, higher European production resulting from the consolidation of Spirit Energy and higher achieved gas and liquids prices.

Group finance charge and tax

Net finance costs decreased to £273 million (2017: £344 million), largely reflecting the repurchase of £1.1 billion of gross debt which was completed in Q1 2018. This excludes costs of £139 million associated with the debt repurchase, which are included in exceptional items.

Adjusted operating cash flow

£2,245m

2017: £2,069 million
▲ 9%

Adjusted earnings

£631m

2017: £698 million
▼ 9%

Group net debt

£2,656m

2017: £2,596 million
▲ 2%

Operating profit

		2018			2017		
Year ended 31 December	Notes	Business performance £m	Exceptional items and certain re-measurements £m	Statutory result £m	Business performance £m	Exceptional items and certain re-measurements £m	Statutory result £m
Adjusted operating profit / (loss)							
UK Home		**668**			819		
Ireland		**44**			47		
North America Home		**123**			114		
Connected Home		**(85)**			(95)		
Centrica Consumer		**750**			885		
UK Business		**40**			4		
North America Business		**81**			71		
Distributed Energy & Power (DE&P)		**(81)**			(53)		
Energy Marketing & Trading (EM&T)		**54**			104		
Central Power Generation (CPG)		**27**			35		
Centrica Business		**121**			161		
Exploration & Production (E&P)		**521**			201		
Total adjusted operating profit	4(c)	**1,392**			1,247		
Interest and taxation on joint ventures and associates	4(c)	**–**			(7)		
Group operating profit / (loss)	4(c)	**1,392**	**(405)**	**987**	1,240	(759)	481
Net finance cost	8	**(273)**	**(139)**	**(412)**	(344)	–	(344)
Taxation	9	**(461)**	**128**	**(333)**	(191)	352	161
Profit / (loss) for the period		**658**	**(416)**	**242**	705	(407)	298
Profit attributable to non-controlling interests		**(27)**			(12)		
Adjusted earnings		**631**			693		

Statutory taxation on profit increased to a charge of £333 million (2017: credit of £161 million), with a statutory effective tax rate of 58%. Business performance taxation on profit increased to £461 million (2017: £191 million) and after taking account of tax on joint ventures and associates, the adjusted tax charge was £458 million (2017: £197 million). An adjusted effective tax rate calculation for both 2017 and 2018 is shown below.

The Group adjusted effective tax rate increased to 41% (2017: 22%), largely due to a number of one-off credits in the 2017 charge. Adjusting for these credits, the Group's underlying adjusted effective tax rate for 2017 was 40%.

Group adjusted earnings

Profit for the year from business performance decreased to £658 million (2017: £705 million) and after adjusting for non-controlling interests, adjusted earnings fell by 9% to £631 million (2017: £693 million). This reflects the increased tax charge, partly offset by higher adjusted operating profit and lower net finance costs, all as described on page 37. Adjusted basic EPS was 11.2p (2017: 12.5p) reflecting the lower earnings.

Exceptional items

A net exceptional pre-tax charge included within Group Operating Profit of £185 million was recognised in 2018 (2017: £884 million).

The Group recognised a net write-back of £90 million on E&P assets. It recognised £57 million of net write backs on UK and Norwegian oil and gas fields predominantly due to an increase in near-term liquid prices, partially offset by a reduction in long-term price forecasts. It also recognised a £33 million write-back of decommissioning provisions for assets previously impaired.

The Group also recognised an onerous contract provision of £44 million in relation to the Spalding tolling contract and an £18 million impairment in relation to gas-fired power station assets in the Distributed Energy and Power segment, following the suspension of the UK Capacity Market in November 2018 and reflecting reductions in clean spark spread price forecasts.

On 26 October 2018, the High Court of Justice of England and Wales issued a judgment requiring equality of treatment for men and women in relation to Guaranteed Minimum Pension benefits in contracted out UK pension schemes for the period 1978 to 1997. As a result of this judgment, Centrica's scheme liabilities have been recalculated and a past service cost of £43 million has been charged to the Income Statement.

As a result of the Group's strategic review announced in 2015, the Group incurred a further £170 million of restructuring costs in 2018, principally relating to redundancy, data migration, digitalisation of the customer journey, business closures and other transformational activity.

The Group also incurred one-off transaction costs within net financing costs of £139 million relating to the debt repurchase programme completed in 2018.

These charges in total generated a taxation credit of £89 million (2017: £408 million). As a result, total net exceptional charges after taxation were £235 million (2017: £476 million).

Further details can be found in note 7.

Certain re-measurements

The Group enters into a number of forward energy trades to protect and optimise the value of its underlying production, generation, storage and transportation assets (and similar capacity or off-take contracts), as well as to meet the future needs of our customers. A number of these arrangements are considered to be derivative financial instruments and are required to be fair valued under IFRS 9. The Group has shown the fair value adjustments on these commodity derivative trades separately as certain re-measurements, as they do not reflect the underlying performance of the business because they are economically related to our upstream

Group tax charge

	Non-E&P		E&P		E&P	Group
Year ended 31 December 2018	**UK £m**	**Non-UK £m**	UK £m	Non-UK £m	**Total £m**	**Total £m**
Adjusted operating profit	**645**	**226**	60	461	**521**	**1,392**
Share of JV/associate interest	**(3)**	**–**	–	–	**–**	**(3)**
Net finance cost	**(277)**	**(42)**	73	(27)	**46**	**(273)**
Adjusted profit before taxation	**365**	**184**	133	434	**567**	**1,116**
Taxation on profit (excluding PRT)	**57**	**38**	51	364	**415**	**510**
Petroleum Revenue Tax (PRT)	**–**	**–**	(49)	–	**(49)**	**(49)**
Share of JV/associate taxation	**(3)**	**–**	–	–	**–**	**(3)**
Adjusted tax charge	**54**	**38**	2	364	**366**	**458**
Adjusted effective tax rate	**15%**	**21%**	2%	84%	**65%**	**41%**

	Non-E&P		E&P		E&P	Group
Year ended 31 December 2017	UK £m	Non-UK £m	UK £m	Non-UK £m	Total £m	Total £m
Adjusted operating profit	794	252	(99)	300	201	1,247
Share of JV/associate interest	(1)	–	–	–	–	(1)
Net finance cost	(266)	(82)	32	(28)	4	(344)
Adjusted profit before taxation	527	170	(67)	272	205	902
Taxation on profit (excluding PRT)	35	(2)	(27)	242	215	248
Petroleum Revenue Tax (PRT)	–	–	(57)	–	(57)	(57)
Share of JV/associate taxation	6	–	–	–	–	6
Adjusted tax charge	41	(2)	(84)	242	158	197
Adjusted effective tax rate	8%	(1%)	125%	89%	77%	22%

Operating cash flow

Year ended 31 December	2018 £m	2017 £m
Net cash flow from operating activities	**1,934**	1,840
Add back/(deduct):		
Net margin and cash collateral inflow[(1)]	**(57)**	(136)
Payments relating to exceptional charges	**248**	176
Dividends received from joint ventures and associates	**22**	58
Defined benefit deficit pension payment	**98**	131
Adjusted operating cash flow	**2,245**	2,069

(1) Net margin and cash collateral inflow includes the reversal of collateral amounts posted when the related derivative contract settles.

assets, capacity/off-take contracts or downstream demand, which are typically not fair valued. The operating profit in the statutory results includes a net pre-tax loss of £220 million (2017: gain of £125 million) relating to these re-measurements, or a loss of £181 million after tax (2017: gain of £69 million). The Group recognises the realised gains and losses on these contracts in business performance when the underlying transaction occurs. The profits arising from the physical purchase and sale of commodities during the year, which reflect the prices in the underlying contracts, are not impacted by these re-measurements. See note 7 for further details.

Group statutory earnings

The statutory profit attributable to shareholders for the year was £183 million (2017: £328 million). The reconciling items between Group profit for the period from business performance and statutory profit are related to exceptional items and certain re-measurements. The difference compared to 2017 is due to the lower profit from business performance and a net loss from certain re-measurements compared to a net profit in 2017, partially offset by a lower post-tax net exceptional charge, all as described above. The Group reported a statutory basic EPS of 3.3p (2017: 5.9p).

Dividend

In addition to the interim dividend of 3.6p per share, the proposed final dividend is 8.4p, giving a total full year dividend of 12.0p (2017: 12.0p).

Group cash flow, net debt and balance sheet

Net cash flow from operating activities increased to £1,934 million (2017: £1,840 million), with higher EBITDA being partially offset by lower net working capital inflows and higher payments relating to exceptional charges. Adjusted operating cash flow, which is reconciled to net cash flow from operating activities in the table above, increased by 9% to £2,245 million.

Net cash outflow from investing activities was £1,007 million (2017: inflow of £32 million). The change compared to 2017 is predominantly due to proceeds from net disposals in 2017 of £825 million, mainly relating to the Lincs wind farm, UK gas-fired power stations and Canadian E&P assets, and slightly increased organic capital expenditure and acquisition spend in 2018.

Net cash outflow from financing activities was £2,540 million (2017: £1,070 million) reflecting the impact of the debt repurchase programme, a bond maturity in September and higher cash equity dividends reflecting a lower scrip take up.

The Group's net debt as at 31 December 2018 was slightly up to £2,656 million (31 December 2017: £2,596 million), which includes cash collateral posted or received in support of wholesale energy procurement.

Net assets increased by £516 million to £3,948 million (31 December 2017: £3,432 million). Total assets decreased by £122 million, including reduced cash and cash equivalent balances due to the impact of the debt repurchase programme and higher trade and other receivables and retirement benefit assets. Total liabilities decreased by £638 million, with lower borrowings resulting from the debt repurchase programme and bond maturity, and a reduction in the pension liability partially offset by increased trade payables. Further details on pensions can be found in note 22.

2018 Acquisitions and disposals

The Group completed a number of bolt-on acquisitions during the year.

On 28 February 2018 the Group acquired NJR Retail Services company for $24 million (£17 million). On 1 July 2018, the Group acquired North American mid-continent retail operations from BP Canada Energy Marketing Corporation for $39 million (£31 million). On 31 December 2018 the Group acquired certain retail power operations from Source Power & Gas Business LLC for $26 million (£21 million). These businesses will all form part of North America Business.

On 27 November 2018, the Group acquired T.A. Kaiser Heating and Air Inc. for $19 million (£15 million). This business will form part of North America Home.

Further details on acquisitions, assets purchased and disposals are included in notes 4(e) and 12.

Events after balance sheet date

Details of events after the balance sheet date are described in note 26.

Risks and capital management

The nature of the Group's principal risks and uncertainties are largely unchanged from those set out in its 2017 Annual Report, although there continues to be a high degree of uncertainty surrounding the process for the UK's exit from the European Union. Further details are set out in this 2018 Annual Report on pages 41 to 51. Details of how the Group has managed financial risks such as liquidity and credit risk are set out in note S3. Details on the Group's capital management processes are provided under sources of finance in note 24.

Accounting policies

UK listed companies are required to comply with the European regulation to report consolidated financial statements in conformity with International Financial Reporting Standards (IFRS) as adopted by the European Union. The Group's specific accounting measures, including changes of accounting presentation and selected key sources of estimation uncertainty, are explained in notes 1, 2 and 3.

Our View on Taxation

The Group takes its obligations to pay and collect the correct amount of tax very seriously.

Responsibility for tax governance and strategy lies with the Group Chief Financial Officer, overseen by the Board and the Audit Committee.

Our approach

Wherever we do business in the world, we take great care to ensure we fully comply with all of our obligations to pay or collect taxes and to meet local reporting and disclosure requirements.

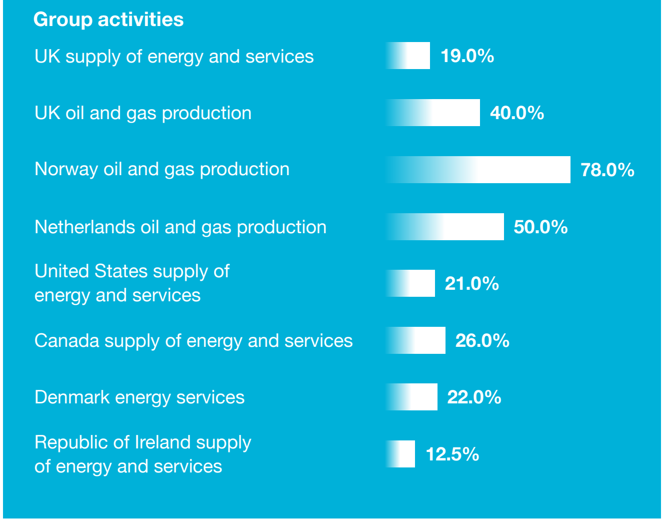
We fully disclose information on ownership, transactions and financing structures to the relevant tax authorities. Our cross-border tax reporting reflects the underlying commercial reality of our business.

We are committed to providing disclosures and information necessary to assist understanding beyond that required by law and regulation.

We do not tolerate tax evasion or fraud by our employees or other parties associated with Centrica. If we become aware of any such wrongdoing, we take appropriate action.

We ensure that income and costs, including costs of financing operations, are appropriately recognised on a fair and sustainable basis across all countries where the Group has a business presence. We understand that this is not an exact science and we engage openly with tax authorities to explain our approach.

Statutory tax rates on profits



In the UK we maintain a transparent and constructive relationship with Her Majesty's Revenue & Customs (HMRC). This includes regular, open dialogue on issues of significance to HMRC and Centrica. Our relationship with fiscal authorities in other countries where we do business is conducted on the same principles.

We carefully manage the tax risks and costs inherent in every commercial transaction, in the same way as any other cost. However, we do not enter into artificial arrangements in order to avoid taxation nor to defeat the stated purpose of tax legislation.

We actively engage in consultation with governments on tax policy where we believe we are in a position as a Group to provide valuable commercial insight.

The Group's tax charge, taxes paid and the UK tax charge

The Group's businesses are subject to corporate income tax rates as set out in the statutory tax rates on profits table. The overall tax charge is therefore dependent on the mix of profits and the tax rate to which those profits are subject.

Tax charge compared to cash tax paid

	Current tax charge/(credit) £m	Cash tax paid/ (recovered) £m
UK	(74)	(38)
Europe	234	86
North America	50	13
Total	**210**	**61**

During the year, the UK received a cash refund of tax overpaid in periods prior to 2015; UK tax charge includes a credit of £50 million of PRT related to its upstream activities.

For details on the Group's effective tax rate and a breakdown between relevant jurisdictions and segments, see pages 36 to 39.

Further information on the tax charge is set out in note 9 on
Pages 149 to 151

Our Group Tax Strategy, a more detailed explanation of the way the Group's tax liability is calculated and the timing of cash payments, is provided on our website at
centrica.com/responsibletax

Our Principal Risks and Uncertainties

Understanding those risks that impact our strategy and determining how much risk we would like to take

Decentralisation of energy systems, shifting power to the consumer and increasing digitisation, presents both opportunities and risks. Identifying and appropriately managing these risks is critical to the successful delivery of our strategy. Within our System of Risk Management and Internal Control we assess risk in relation to the delivery of Group Priorities and determine the level of risk we are prepared to take:

- safety, compliance and conduct: Our appetite for taking risk in this area is as low as reasonably practicable in relation to: ensuring the safety of our people, customers and communities; conducting our business operations in compliance with laws and regulations; protecting personal and business data about our customers and employees; and managing our financial reporting risks;
- customer satisfaction and operational excellence: We have a moderate risk appetite to allow us to pursue innovative opportunities. We are driven to satisfy the changing needs of our customers;
- cash flow growth and strategic momentum: We have a moderate to high risk appetite for seeking opportunities to deliver cash flow growth and our target return on capital;
- cost efficiency and simplification: We have a low to moderate risk appetite for failing to implement and manage improvements sustainably and in a rigorous and systematic way; and
- people and building capability: We accept a moderate level of risk in finding ways to attract, develop and reward people with the diverse capabilities needed to deliver our ambitions.

> **"We can't predict the future but we can empower better business performance by having the credibility, courage and confidence to raise the issues that really matter."**
>
> **Carolyn Clarke**
> Group Head of Internal Audit, Risk and Control

Strengthening our System of Risk Management and Internal Control

Each business unit and Group function is responsible for identifying and assessing its significant risks. We consider both the potential impact to the Group and the likelihood of occurrence on an inherent and residual basis and aggregate these risks within defined Principal Risk categories. The Executive Committee then considers these perspectives alongside broader external and internal factors to create a Group-wide set of prioritised risks.

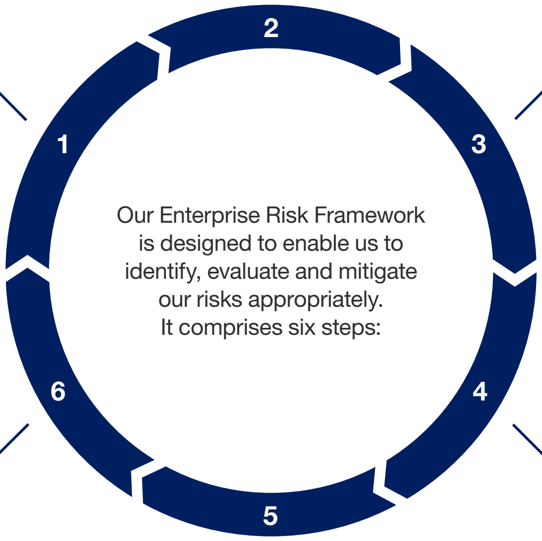
We categorise our risks as:

- **Risk Requiring Standards (RRS):** Risk with negative impacts that we control through Standards and Management Systems, for example process safety or data security.
- **Risk Requiring Judgement (RRJ):** Risk that we choose to take to execute our business strategy, for example new products or business improvement opportunities.
- **External Risk:** Risk that requires a focus on scenario and contingency planning with little or no ability to reduce likelihood, for example extreme weather or geopolitical turbulence.

We identify all 'severe, but plausible' consequences of our risks, where the realisation is more than remote in likelihood. These consequences are considered in our assessment of viability as described on page 51.

On an annual basis, we evaluate our System of Risk Management and Internal Control, learning from any control incidents that have arisen, to ensure we are mitigating risks in line with our risk appetite. We are evolving our System of Risk Management and Internal Control to ensure it remains appropriate, particularly as we expand into new jurisdictions and develop our business priorities.

Evaluating risks through our Enterprise Risk Framework



Our Enterprise Risk Framework is designed to enable us to identify, evaluate and mitigate our risks appropriately. It comprises six steps:

Identify

- Identify significant risks to achieving business unit and/or function objectives

Assess & Analyse

- Assess inherent impact and likelihood using the Centrica risk assessment matrix
- Identify risk type (RRS, RRJ or External Risk) and determine target risk rating
- Identify mitigating activity and key risk indicators and assess current risk exposure

Design & Implement Controls

- Design and implement controls and actions to mitigate the potential impact and likelihood of risks

Manage & Monitor

- Management of risks and controls to deliver target risk level
- Monitor through inspection, performance reviews and regular reporting
- Identify and implement specific remediation actions

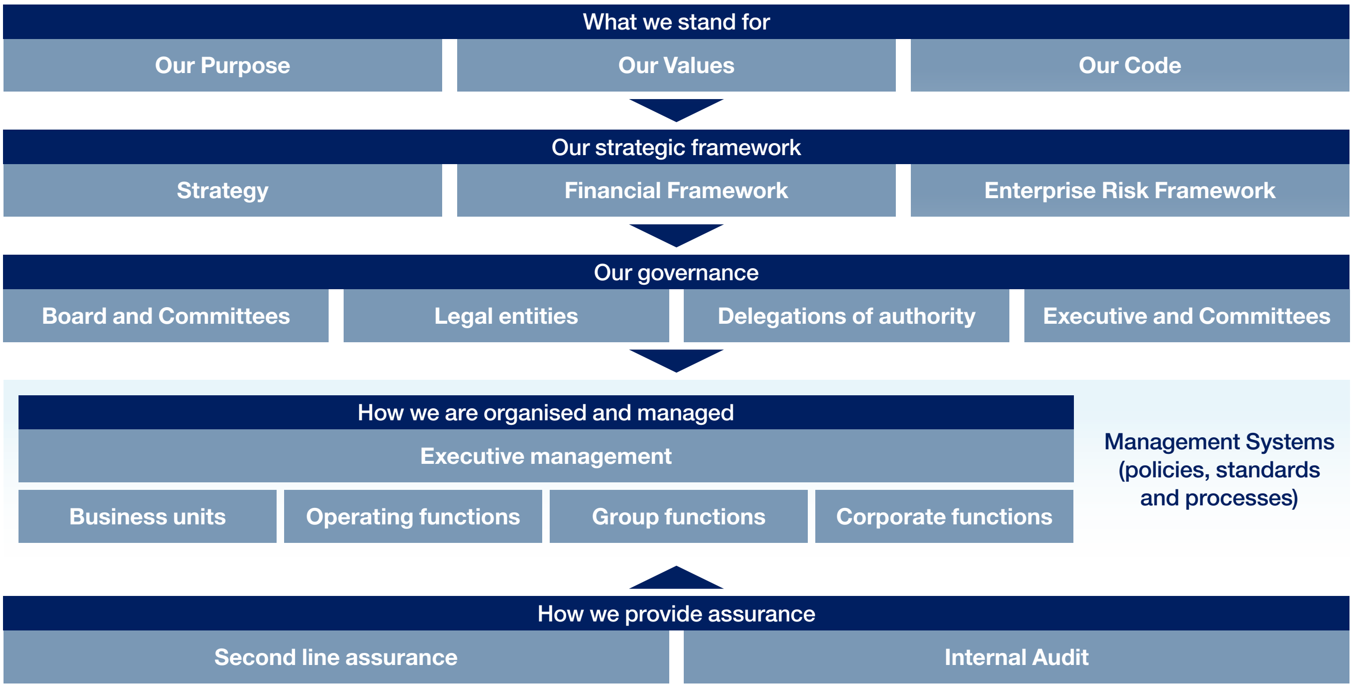
Calibrate & Assure

- Risks are calibrated to ensure consistency and prioritise responses
- Second line assurance and internal audit activity
- Assess impact of assurance findings

Report, Evaluate & Improve

- Report consolidated risk, assurance and control position to the Group Ethics, Risk, Assurance, Control and Compliance Committee (GERACCC), Audit Committee and Safety, Health, Environment, Security and Ethics Committee (SHESEC)
- Evaluate priority risks within the Group risk profile to identify any corrective actions
- Evaluate Group-wide severe, but plausible, risks and implications
- Drive continuous improvement through reviewing the Risk Universe and Group risk appetite

Our System of Risk Management and Internal Control: How Centrica Works



What we stand for

Our Purpose | Our Values | Our Code

Our strategic framework

Strategy | Financial Framework | Enterprise Risk Framework

Our governance

Board and Committees | Legal entities | Delegations of authority | Executive and Committees

How we are organised and managed

Executive management

Business units | Operating functions | Group functions | Corporate functions

Management Systems (policies, standards and processes)

How we provide assurance

Second line assurance | Internal Audit

Mitigating Risk through our System of Risk Management and Internal Control

Our System of Risk Management and Internal Control is central to our governance processes and comprises the following elements:

- **What we stand for:**
  - **Our Purpose:** We are an energy and services company. Everything we do is focused on satisfying the changing needs of our customers.
  - **Our Values:** Our Values of Care, Collaboration, Courage, Delivery and Agility underpin our strategy and Priorities.
  - **Our Code:** This was launched in early 2018 to replace our Business Principles and provides the foundation for how we operate.
- **Our strategic framework:**
  - **Strategy:** This is aligned throughout the organisation by the five Group Priorities.
  - **Financial Framework:** Sets out parameters and targets within which we operate to guide our strategic planning and financial decision-making.
  - **Enterprise Risk Framework:** Incorporates the Principal Risks within the Group Risk Universe.
- **Our governance:**
  - **Board and Committees:** Structured to effectively execute required duties and through which our Principal Risks are monitored.
  - **Legal entities:** Subsidiary company legal entities with boards of directors required to meet legal and regulatory obligations.
  - **Delegations of authority:** Accountability is delegated through the organisation to individuals in accordance with risk appetite.
  - **Executive and Committees:** Oversight to ensure appropriate planning and performance management.
- **How we are organised and managed:**
  - **Management Systems:** The detailed policies, standards and processes establishing the mandatory requirements and which are required for the systematic management of related risks.
- **How we provide assurance:**
  - **Second line assurance:** Ensuring policies and standards are complied with through monitoring and testing activities performed by individuals who are not directly responsible for the operation of the controls relating particularly to Finance, HSES, and Digital Technology Services.
  - **Internal Audit:** Providing confidence to the Board, via the Audit Committee, that Centrica has appropriate risk management procedures and effective controls in place.

> **“With advances in technology and the increased decentralisation and disintermediation in our industry it is increasingly important to understand the breadth of our risks and how they are being managed.”**
>
> **Alison Hill**
> Group Head of Enterprise Risk

Changes in risk climate and emerging risks

We monitor closely the evolving risk climate in relation to each of our Principal Risks. We consider that our overall risk climate has broadly remained unchanged over the past year. However, within specific Principal Risks there have been movements. Notably the risks related to regulatory intervention declined with the clarity provided on the SVT Price Cap, but the broader political uncertainty counteracts this. We monitor those risks that could impact on the Group in the future, including risks relating to our competitiveness, global energy and services trends, political developments and climate change.

Emerging risks relating to competitiveness result from the need to be agile in delivering growth in gross margin in an environment where there are many new entrants and our competitive landscape is evolving. We focus on serving our customers and have worked in 2018 to strengthen our leadership teams. Quarterly performance reviews are held with all parts of the business to monitor progress against targets and embed continuous improvement.

We are adapting our company to be agile and to embrace the future as a 21st century energy and services company. The shifting of power to the consumer means today's customers are accustomed to using the Internet of Things (IoT). To stay at the forefront of technology, we are increasing our investment in Connected Homes with innovations to give customers control over their home energy management. Similarly, our Distributed Energy & Power business helps customers gain competitive advantage from energy and allows us to offer end-to-end solutions. Ongoing digitisation will continue to provide opportunities to improve productivity and accessibility of energy systems, and therefore customer satisfaction, and may also improve safety and sustainability. However, digitisation also brings new security and privacy risks. Security operations monitoring teams are developing new ways to detect physical, cyber and insider attacks. We also have a Proactive Cyber Assurance team in place to identify system vulnerabilities before they are exploited.

Risks relating to the global political and economic environment, global disease outbreaks, interstate conflict, trade wars, terrorist attacks and climate change are monitored with a focus on the countries in which we operate. As our Group footprint grows, we need to be increasingly attentive to risks specific to new jurisdictions in which we operate. We manage relationships with multiple stakeholders to understand how global events can impact on our operations and monitor macro-environmental factors to assess the impact on commodity prices.

Climate change presents particular concerns and we are focused on ensuring we can respond to increased weather volatility, with its potential to harm our customer service levels, if we are unable to adapt appropriately to events like the extreme cold weather in the UK during the first few months of 2018. Lessons learnt from such events have helped us to put new measures in place for similar issues in the future.

Brexit risks

Given the UK's intention to leave the European Union on 29 March 2019, we established a dedicated Brexit project group following the 2016 referendum. During 2018 and into 2019, that group worked intensively with colleagues across Centrica to anticipate and mitigate, as far as possible, any adverse impacts on the Group and our customers. These efforts were strongly focused on the 'no deal' risk of leaving the EU without an agreement, addressing both the potential financial consequences and the need to maintain operational business continuity. Particular attention was paid to our pan-European energy trading activities, our Bord Gáis business operating within the Integrated Single Electricity Market (ISEM) on the island of Ireland, the impact of a 'no deal' Brexit on cross-border trade in goods (procurement and supply chains) and the need to facilitate continued cross-border transfers of protected personal data. We have completed our business impact assessment and this has been independently assessed through our Internal Audit function and advisors. We have individual working groups with clear accountabilities established for the necessary contingency plans and 'no deal' risk mitigation for both the direct and indirect consequences.

Specific and material 'no deal' risks considered in February 2019 include the following:

- our energy trading entities may face additional obligations under EU financial services legislation (particularly, the European Market Infrastructure Regulation) because that legislation will no longer recognise UK energy derivative trades as it does within the EU;
- we do not yet know whether we have a UK obligation to present EU ETS carbon permits in 2019, making it more difficult manage our carbon position;
- the future of the ISEM on the island of Ireland may be at risk;
- efficient day-ahead access to the electricity interconnectors between GB and the Republic of Ireland/Northern Ireland may not be available for some time after Brexit, making it more complex for Bord Gáis to manage its electricity pricing risks;
- we and/or our customers will face the risks of a weaker pound, WTO import duties and logistical delays at UK ports of entry – putting up the costs of EU-sourced equipment and potentially making it more difficult to manage unplanned outages of energy producing facilities;
- since the UK will lose blanket EU approval for cross-border transfers of personal data, we are taking steps to include EU-approved 'model clauses' within all the relevant contracts; and
- a weaker pound, lower UK interest rates and higher UK inflation in the wake of a 'no deal' Brexit could push up the level of UK corporate pensions deficits, including our own.

Principal Risks

The Group Risk Universe is made up of a holistic framework of Principal Risks, laid out below in the Group's order of prioritisation. The Board makes a robust assessment of these Principal Risks, considering future performance and our ability to deliver the strategy, including solvency and liquidity risks. For each Principal Risk, we discuss the nature of the risk and the impact on our Group Priorities. Each Principal Risk is overseen directly by the Board or one of its committees, with the Board retaining overall responsibility for risk across the Group.

Our assessment of risks extends to risks associated with our investments in joint ventures and associates, including our nuclear business. The impact and likelihood of these risks are evaluated and reported using a consistent approach.

Description	**Political and Regulatory Intervention** Risk of political or regulatory intervention and changes, including those resulting from Brexit, or a failure to influence such changes. **External Risk** **Governance Oversight:** Board **Priority:** Cash flow growth and strategic momentum	**Financial Market** Risk of financial loss due to our exposure to market movements, including commodity prices, inflation, interest rates and currency fluctuations. **External Risk with elements that are Risk Requiring Judgement** **Governance oversight:** Board and Audit Committee **Priority:** Cash flow growth and strategic momentum	**Health, Safety, Environment and Security (HSES)** Risk of failure to protect the health, safety and security of customers, employees and third parties or to take appropriate measures to protect our environment and in response to climate change. **Risk Requiring Standards** **Governance Oversight:** Board and Safety, Health, Environment, Security and Ethics Committee **Priority:** Safety, compliance and conduct
Potential impacts	As described on page 44, Brexit presents risks that are being closely managed in relation to changing policies in the energy market and with regards to carbon emissions. While the results of the Ofgem investigation into Standard Variable Tariffs is now known, there is continued regulatory pressure in the Consumer Energy Supply markets in the UK and North America that could result in the erosion of our profit margins. There is a risk of partial/total regulation of a small number of retail and/or natural gas markets in the US. Operating costs could also increase in the case of further smart meter and/or energy efficiency obligations.	Due to our large upstream and downstream business positions, our exposure to adverse price movements in commodity markets could impact profitability and cash flow generation across the business. While increased volatility in commodity prices could provide more opportunities, it could also give rise to higher collateral costs and/or additional credit risk for both Energy Marketing & Trading (EM&T) and North America Business. Further, it would create volatility in asset and contract valuations. An unseasonally warm autumn/winter in the UK and a cooler summer in the US could reduce customer demand significantly.	Our operations have the potential to result in personal or environmental harm. Significant HSES events could have regulatory, financial and reputational repercussions that would adversely affect some, or all, of our brands and businesses. We recognise and report on incidents that do occur, as described on page 19.
Mitigation	• We are committed to an open, transparent and competitive UK energy market which provides choice for consumers. • Executive Directors and senior management actively engage in discussions with political parties, regulatory authorities and other stakeholders. • We have dedicated Corporate Affairs and Regulatory teams which examine upcoming political and regulatory changes and their impact. • We have a dedicated Brexit project group which aims to identify and assess the many Brexit-related issues which might impact the Group and our customers.	• Financial risk is reviewed regularly by the Financial Risk, Assurance and Control Committee, and the Group Ethics, Risk, Assurance, Control and Compliance Committee to assess financial exposures and compliance with risk limits. Regular review is also undertaken by the Audit Committee. • Stress testing analysis is presented weekly to the EM&T Risk Committee. • As we move into new trading arrangements, we are focused on ensuring that our financial risk policies remain appropriate to the risks we face. • We have appropriate hedging strategies in place that are regularly updated to mitigate exposure to commodity and financial market volatility. • We are investing in our systems to further automate and strengthen our control environment.	• We are restructuring our business to make it less carbon intensive and we engage with climate change bodies and NGOs to offer our perspective, understand the direction of future actions and assess our readiness to respond to change. • We engage with regulatory agencies such as the Environment Agency, Oil and Gas Authority and UK HSEx to ensure we comply with legislative/regulatory requirements. • HSES Management Systems are established to include the policies, standards and procedures, focusing on areas of concern like process safety, driving and working at heights. • We undertake regular reviews and have assurance processes in place with reporting to the HSES Committee on a quarterly basis. • Security intelligence operating procedures, crisis management plans and business continuity plans are regularly evaluated and tested. • We drive an Incident Free Workplace (IFW) culture across our business. • We continue to invest in training to ensure we maintain safe operating practices and require all employees to complete the relevant online HSES courses for their role.

Description	**Strategy Delivery** Risk that our strategy is not appropriate to respond to external issues and/or the risk that the strategy is not deliverable due to insufficient capability. **Risk Requiring Judgement** **Governance oversight:** Board **Priority:** Cash flow growth and strategic momentum	**External Market Environment** Risk that events in the external market or environment could hinder the delivery of our strategy. **External Risk** **Governance oversight:** Board **Priority:** Cash flow growth and strategic momentum	**Brand, Trust and Reputation** Risk that our competitive position is compromised by poor standards of fairness and transparency, and by failing to protect our brands. **Risk Requiring Judgement** **Governance oversight:** Board **Priority:** Customer satisfaction and operational excellence
Potential impacts	Successful delivery of our strategy requires serving customers in a way that satisfies their changing needs in a competitive marketplace. Failure to identify changing trends in customers' needs, stay ahead of technological and digital advancements, develop appropriate responses to changing markets and competitive environments, and build the necessary capabilities to compete, have the potential to adversely impact our cash flow growth and value goals.	We operate in highly competitive markets, where customer behaviour, needs and demands are evolving due to digitisation, energy efficiency, climate change, government initiatives and the general economic outlook. Failure to react appropriately and rapidly to changes in customer behaviour could result in the erosion of our customer base, leading to reduced revenues and associated margins. In addition, we are subject to global market volatility in our upstream businesses in commodity markets.	Failure to appropriately manage brand perception, media attention and lobbying from pressure groups could impact customer sentiment and could ultimately result in a reduction in overall customer numbers. Failure to be fair and transparent could lead to reputational damage, falling share prices and, in the case of very poor standards, legal action.
Mitigation	• The Board sets and reviews the Group's strategy, determining the strategic direction and confirming the strategic choices made by the business. Regular reviews are conducted considering changes in market trends and the competitive environment, and the business response. • The Board and Executive Committee regularly review the capabilities required to deliver on the strategy and address issues as they appear. • We have a clear financial framework to ensure capital is allocated in accordance with our strategy and that balance sheet strength and return on capital boundary conditions are met. • We have dedicated teams to ensure we continue to develop and innovate in new technologies. • Our Digital Technology Services function works in partnership with Change functions to assure and deliver programmes of change.	• We focus on understanding consumer segments and their needs, through products and services that are attractive and competitive. • We undertake regular analysis of commodity price fundamentals and their potential impact on our business plans and forecasts. • Our Market and Competitive Intelligence team monitors movements in markets and provides information to enable appropriate decision-making. • We are increasing our investment in areas like Connected Home and Distributed Energy & Power, that help to satisfy the emerging customer needs of having more control over and awareness of their energy usage. • We have developed Centrica Innovations and our Technology & Engineering function to keep abreast of technological advances.	• We aim to deliver a fair, simplified and transparent offering to all our customers. • We engage with NGOs, consumer and customer groups, political parties, regulators, charities and other stakeholders to identify solutions to help reduce bills and improve trust in the industry. • We review and monitor changes in our customer brand position through Net Promoter Score (NPS). • We are transforming our complaints process to lower backlogs and resolution times, and to address root causes. • We closely monitor key metrics including broken promises/ appointments, grade of service and complaint numbers.

Change Management Risk of failure in the identification, alignment and execution of change programmes and business restructuring. **Risk Requiring Judgement** with elements that are Risks Requiring Standards. **Governance oversight:** Board **Priority:** Cost efficiency and simplification	**Legal, Regulatory and Ethical Standards Compliance** Risk of failure to comply with laws and regulations, and to behave ethically in line with Our Code, resulting in adverse reputational and/or financial impact. **Risk Requiring Standards** **Governance oversight:** Board and Safety, Health, Environment, Security and Ethics Committee. **Priority:** Safety, compliance and conduct	**Information Systems and Security** Risk of reduced effectiveness, availability, integrity and security of IT systems and data essential for our operations. **Risk Requiring Standards** with elements that are Risks Requiring Judgement **Governance oversight:** Board, Audit Committee and Safety, Health, Environment, Security and Ethics Committee **Priority:** Safety, compliance and conduct
If transformation projects are not aligned to our strategic objectives, or not implemented appropriately, the expected benefits may not be realised and resources for other critical projects may be depleted. There are many transformation initiatives that could be disruptive and/or result in compromise to the control environment if not governed appropriately.	Any real or perceived failure to follow Our Code or comply with legal or regulatory obligations would undermine trust in our business. Non-compliance could lead to financial penalties, reputational damage, customer churn and/or legal action.	Our substantial customer base and strategic requirement to be at the forefront of technological development, means that it is critical that our technology is robust, our systems are secure, and our data is protected. Sensitive data faces the threat of misappropriation, for example from hackers and viruses, leading to potential financial loss and/or reputational damage. Failure to deliver IT solutions in support of the prioritised objectives and change programmes in the business would have consequences both for our organisational transformation and in some cases, our compliance obligations.
• We have a standardised requirement articulated as Our Approach to Managing Change Impacts. • Transformation programmes are approved by the Board via the Group Strategic Planning and capital allocation process. • Investment appraisal criteria are defined in Group Investment Committee Guidance. • Progress on specific projects is consistently monitored through Steering Groups and reported through to the Board. • We have dedicated change capability at Group and business unit level to monitor the realisation of benefits, the prioritisation of efforts and to share best practice. • We have post-merger integration procedures in place to integrate acquired businesses.	• Regulatory compliance monitoring activities are performed by a single function to drive Group-wide consistency and quality. • Control frameworks are in place to deliver customer experience in line with requirements over sales compliance, billing, retentions, customer correspondence and complaints handling. These are regularly reviewed by relevant leadership teams through KPIs. • Our GDPR Steering Group has had oversight of our cross-functional initiatives to drive compliance and to determine how we govern our data appropriately. • Our Financial Crime team monitors threats throughout the business. • The global 'Speak Up' helpline has been relaunched to provide a consistent Group-wide approach and reinforce the importance of this channel as a means to flag unethical behaviour.	• Our HSES Physical Security and Resilience and Digital Technology Services Information Security Functions have been combined to form a Global Security Function. • Our information security strategy seeks to integrate information systems, personnel and physical aspects to prevent, detect and investigate threats and incidents. • We have established governance bodies to oversee compliance with new security requirements. • We have a Digital Technology Services Strategy Committee in place to track progress of the strategic priorities for technology, data and digital activities. • We regularly evaluate the adequacy of our infrastructure and IT security controls, test our contingency and recovery processes, and undertake employee awareness and training. • Controls testing and security patching around our core systems is performed regularly, and our controls are further tested by outside experts.

Description	**People** Risk that we are unable to attract and retain employees to ensure that the business has the appropriate capabilities to meet our strategic objectives. There is also a potential risk of industrial action as a large proportion of our field and office-based employees are represented by trade unions and works councils. **Risk Requiring Judgement** with elements that are Risks Requiring Standards **Governance oversight:** Board and Safety, Health, Environment, Security and Ethics Committee **Priority:** People and building capability	**Asset Development, Availability and Performance** Risk that failures in the development or integrity of our investments in operated and non-operated assets could compromise performance delivery. **Risk Requiring Judgement** **Governance oversight:** Board **Priority:** Customer satisfaction and operational excellence	**Financial Processing and Reporting** Risk of errors or losses arising from the processing and reporting of financial transactions for both internal and external purposes. **Risk Requiring Standards** **Governance oversight:** Board and Audit Committee **Priority:** Safety, compliance and conduct
Potential impacts	Failure to attract and retain key capabilities across the business could have a detrimental impact on our ability to meet our strategic objectives. The risk of industrial action in our businesses may have a potential impact on customer service levels and retention. We require the right behaviours from our leaders and employees to deliver our business strategy in line with Our Values and Our Code.	Failure to invest in the maintenance and development of our assets could result in significant safety issues or asset underperformance through unplanned outages. Operational integrity is vital to our ability to deliver projects in line with the strategic objectives. During 2018 we experienced asset outages in Spirit Energy, as reported on page 27.	The accounting landscape is evolving with the adoption of IFRS 9 and 15 in 2018. We have also evaluated the impact of IFRS 16. During the current transformation of our Finance function the potential for failures in core controls is increased. There is a risk that we fail to comply with relevant tax and regulatory requirements.
Mitigation	• Our Code and Our Values set the behavioural expectations for all employees. • We continue to evolve a clearly defined people strategy based on culture and engagement, equality and wellbeing, talent development, training and reward and recognition. • The Executive Committee has clear oversight through regular discussions of the people-related challenges inherent in our transformation programme. • We have been developing a more strategic relationship with our trade union colleagues and engage with them on restructuring and issues that could impact terms and conditions, with clear and open processes to cultivate an environment of trust and honesty. • We conduct annual Employee Engagement surveys and results are reviewed and actioned by senior leaders. • We have implemented a Career Development Office designed to promote and harness internal talent.	• Capital allocation and investment decisions are governed through the Investment Committee. • Group-wide minimum standards are applied to all assets, whether operated or non-operated. • Maintenance activity and improvement programmes are conducted across the asset base to optimise effectiveness and maximise production levels.	• The Audit Committee reviews our compliance with both our internal policies and external requirements. • During 2018 the Audit Committee has regularly reviewed progress in the finance transformation programme, including objectives around strengthening the control environment. • Our financial control framework incorporates our financial controls and management self-assessment compliance. • We undertake detailed testing and evaluation of the effectiveness of our controls in response to critical financial risks, reporting to the Finance, Risk, Assurance and Control Committee quarterly. • Following the reported issues in North America reporting at the end of 2017, we have executed a specific action plan. • The Group Tax function has a control framework, to ensure compliance with all requirements, which has been globalised to drive consistency and simplification.

Customer Service Risk of failure to consistently provide good quality customer service through the customer lifecycle, with potential consequences being increased consumer churn and declining gross margin. **Risk Requiring Judgement** **Governance oversight:** Board **Priority:** Customer satisfaction and operational excellence	**Business Planning, Forecasting and Performance Management** Risk that plans and forecasts may not be deliverable or may fail to drive efficient and effective performance, and the risk of failures in performance reporting. **Risk Requiring Judgement** with elements that are Risks Requiring Standards **Governance oversight:** Board and Audit Committee **Priority:** Cash flow growth and strategic momentum	**Balance Sheet Strength and Credit Position** Risk that our balance sheet may not be resilient, with implications for our ability to withstand difficult market or trading conditions or financial stresses to the business. **Risk Requiring Judgement** **Governance oversight:** Board and Audit Committee **Priority:** Cash flow growth and strategic momentum
The delivery of high quality customer service is central to our business strategy. With the entry of new competitors to the market, customers are increasingly likely to switch if they are unimpressed with their customer experience. Remaining at the forefront of digital developments and innovation is critical as it leads to increased choice and control for our customers. We also face risks regarding our ability to develop and price propositions competitively and profitably, which has increased recently as our business moves into new markets.	We prioritise how we allocate resources according to our business plans and forecasts. Failure to accurately plan and forecast, accounting for the evolving business environment, could result in sub-optimal decisions and failure to realise anticipated benefits.	Failure to operate within the Group's financial framework could result in risk to maintaining our target credit rating, which would impact our access to cost-effective capital and trading arrangements. Long-term financial obligations may increase in value due to factors both inside and outside of our control, such as pension schemes, resulting in additional funding required to meet our obligations.
• Leadership teams in our front-line businesses establish accountability for specific aspects of the customer journey and assess performance daily and weekly. • We operate an environment of continuous improvement, incorporating an accredited programme (STAR), and use root cause analysis of complaint and NPS insight to continuously improve our service delivery. • Customer and Field Operations teams monitor customer service levels, ensuring enquiries are answered in a timescale and manner acceptable to the customer, complaint levels are minimised, and that customer satisfaction is reviewed at all stages of the customer journey. • Customer service agents are quality assessed for consistency with a rigorous training and performance management programme. • Performance parameters are monitored weekly for all third-party service providers involved in the customer service process.	• Annual planning processes are subject to scrutiny from the Executive Committee and the Board with respect to underlying market trends, competitive threats, organisational capability and delivery. Central contingencies are considered in response to the aggregated risk position. • Group functions have adopted standardised planning processes in support of business unit priorities, driving improved integration of plans. • The performance of each business unit is reviewed against their plan throughout the year so that any indications of plans not being delivered can be understood and any required actions can be undertaken. • Quarterly performance review meetings involving the Executive Committee enable the review of plans and forecasts, with revisions identified as necessary. • Post Investment Reviews are conducted to assess investment performance, whether benefits were fully realised and lessons that can be applied for future investment.	• We assess available resources on a regular basis. Significant committed facilities are maintained with sufficient cash held on deposit to meet fluctuations as they arise. • We model the severe, but plausible scenarios and consequences of our risks and their potential to impact our net debt position. • The current credit rating position is reported and discussed regularly by the Centrica Board. • We consider accounting assumptions impacting on our balance sheet carefully, including decommissioning and impairment. • Long-term obligation estimates are updated annually. • Counterparty exposures are restricted by setting credit limits for each counterparty, where possible with reference to published credit ratings. • Wholesale credit risks associated with commodity trading and treasury positions are managed in accordance with Group policy.

Description

Procurement and Supplier Management
Risk of failure to source effectively and to co-ordinate and collaborate with the supply chain to ensure value delivery and continuity.

Risk Requiring Judgement with elements that are Risks Requiring Standards

Governance oversight:
Board and Safety, Health, Environment, Security and Ethics Committee

Priority:
Customer satisfaction and operational excellence

Potential impacts

Our business operations rely on products and services provided through third parties, including outsourced activities, infrastructure and operating responsibility for some assets. We rely on these parties to comply with contractual terms in addition to legal, regulatory and ethical business requirements.

Failure to comply with Centrica's policy and standards when procuring goods and services or to manage key suppliers and contracts effectively could inhibit the ability of the business to maintain competitive products and services, or expose the Group to a range of regulatory or legal risks.

Mitigation

- We have established an end-to-end category management process to maximise value capture throughout the procurement lifecycle, from market analysis through to ongoing contract management and monitoring.
- All suppliers are required to sign up to our 'Ethical Procurement' policies and procedures.
- We review the ethical conduct of our suppliers, including a programme of supplier visits to provide additional assurance over practices employed.
- Financial health, risk and anti-bribery and corruption due diligence and monitoring is implemented in supplier selection and contract renewal processes.
- Audits are conducted in relation to third-party operation of jointly operated Exploration & Production assets.

Viability Statement

Requirement

The UK Corporate Governance Code 2016 requires the Directors to assess the prospects for the Group, taking into account the current position and significant risks, over a longer period than the 12 months required for the going concern assessment. Centrica's Directors maintain a focus on assessing the Group's long-term prospects and viability over an appropriate time period.

Assessment of prospects

Following the strategic review in 2015 we have focused on reshaping the Group and driving efficiencies to be fit for the future, including a future where our largest customer base is impacted by price caps on certain tariffs. We are confident that the measures we have taken and the efficiencies we have realised, as described on page 15 leave the Group in a strong relative competitive position.

In assessing our prospects, we consider the success in delivery of our strategy and our current business performance. The Directors have evaluated and approved the Group Annual Plan for 2019 and the strategic plan for the years beyond this. In doing so we considered carefully the risks to the delivery of the strategy and plans within the categories of Principal Risk outlined on pages 45 to 50.

The risks we consider to be of greatest significance include:

- the risk of further political or regulatory turbulence or intervention;
- external risks associated with commodity and other index movements;
- risks associated with the effectiveness of our internal control environment in relation to cyber, data protection and customer conduct; and
- risks related to our competitive positioning in a world of rapid digital innovation and increased customer choice.

We focus on the critical actions to mitigate risk so that we increase the likelihood of successfully delivering our strategy. In addition to the oversight provided by our Board and Executive Committee, our assurance teams, including Internal Audit, monitor the effectiveness of these activities to enable timely corrective action.

Our risk climate has not receded during the year, but we have embedded improved controls and assurance activities in areas including finance and performance management, information security, data protection, cyber, asset integrity, personal safety and regulatory compliance, which we can demonstrate has increased our resilience in the face of both internal and external risks. We are comfortable in the prospects of the Group in the context of our strategy combined with our focus on strong internal controls.

Assessment of viability

The Board continues to believe that three years is the appropriate timeframe to assess viability reflecting the planning horizon for the Group. Our increasing focus on the energy supply and services businesses means our most significant risks are shorter term in nature, such as the potential for regulatory change and competitive pressures creating disruption in our customer-facing markets. Similarly, the commodity markets in which we operate generally only have transparent and executable pricing available for a three-year period.

We evaluate each of our Principal Risks and aggregate the specific 'severe, but plausible' outcomes within the following scenarios:

- incidents and events, such as further regulatory intervention with the potential to create significant churn that materially reduces our customer numbers, a rapid decline in gross margin through failing to deliver our plan and/or have the potential for material fines, such as those associated with data loss under GDPR;
- significant disruption to our asset-based businesses, including a process safety or asset integrity incident and interruptions through outages of up to two years in our production schedules in Spirit Energy;
- external events beyond our control including movements in commodity prices ranging from 25% to 75%; and
- one-off events including a significant business disruption following a cyber incident or major weather event.

In the current year we have considered also the range of potential consequences resulting from Brexit as described on page 44. The impact of the combined scenarios is compared to our net debt headroom, which is forecast to be in the region of £3 billion to £3.5 billion throughout the period modelled without the need for additional debt. For those risks where the outcome is not binary we perform sensitivity analysis. The most significant of these risks relate to customer churn and commodity price movements. Finally, we model the indirect consequences of each of these issues in relation to the potential for downgrades in our credit rating.

None of the individual scenarios result in the requirement for further mitigation. However, should an extreme combination of these severe but plausible events arise we are able to identify mitigating actions including a significant reduction in operating costs, potential business disposals, reducing technology-related expenditure, reducing capital expenditure in Spirit Energy, reductions in dividend payments, delaying a planned share buyback or the redemption of the hybrid bond and further portfolio adjustments.

Key assumptions embedded in these assessments include:

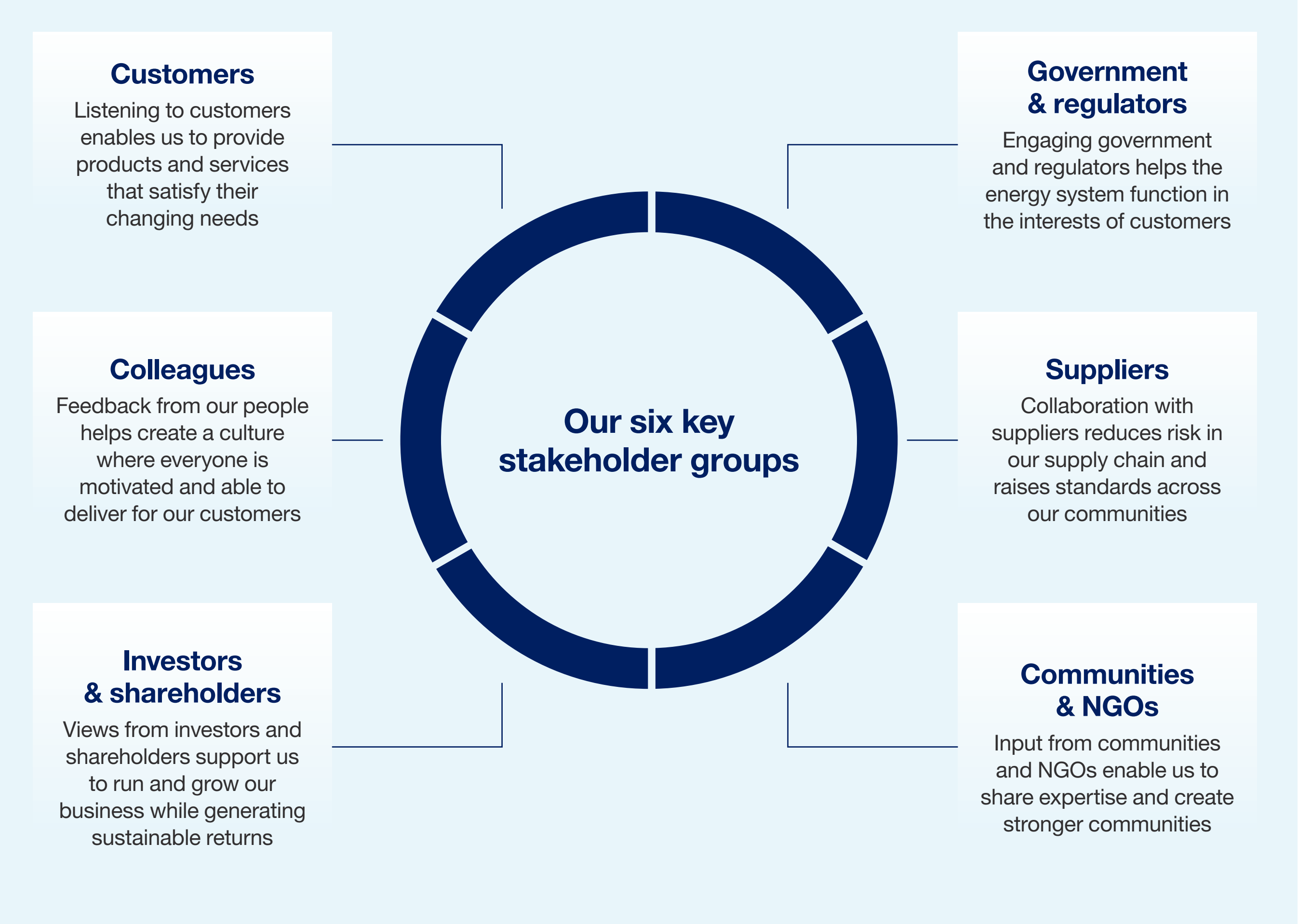
- the use of known consequences, historical evidence and the evaluation of similar events observed in the market to calculate the potential impact;
- target customer numbers, commodity price curves, efficiency programme targets and the shape of the future portfolio;
- ongoing access to our existing sources of funding, including undrawn credit facilities of £3.9 billion as described in note 24(b) to the consolidated Financial Statements, which currently expire between April 2021 and October 2021, with renewal of £4.2 billion of revolving credit facilities expected to occur by the end of February; and
- no further changes in our capital structures such as any new debt funding.

Conclusion

The Directors have considered all the above factors in their assessment of viability over the next three years. We have performed sensitivity analysis which enables the Directors to confirm that they have a reasonable expectation that no individual scenario, or combination of these scenarios, could result in the inability of the Group to continue to operate and meet its liabilities, as they fall due, over a period of at least three years.

Our Stakeholder Engagement

Engaging with stakeholders is fundamental to our business success. By listening to and collaborating with stakeholders, we can grow our business and deliver for our customers and society over the long term.



Our six key stakeholder groups

Customers

Listening to customers enables us to provide products and services that satisfy their changing needs

Government & regulators

Engaging government and regulators helps the energy system function in the interests of customers

Colleagues

Feedback from our people helps create a culture where everyone is motivated and able to deliver for our customers

Suppliers

Collaboration with suppliers reduces risk in our supply chain and raises standards across our communities

Investors & shareholders

Views from investors and shareholders support us to run and grow our business while generating sustainable returns

Communities & NGOs

Input from communities and NGOs enable us to share expertise and create stronger communities

Customers

Our success depends on our ability to understand what our residential and business customers want and how they feel. By seeking their views and putting ourselves in their shoes, we can focus our business decisions on satisfying the changing needs of our customers – from providing new products that fill a gap in the market to delivering system improvements that enable a better service. We seek feedback in several ways including forums, market research and product testing as well as via complaints channels and surveys.

Customer insight

Employees at all levels of the business, including senior executives, have the opportunity to immerse themselves in our customers' world and seek feedback to help us target improvements. This can involve regularly meeting with customers on a one-to-one basis in their homes and businesses or in a moderated group. We also analyse customer experience surveys to identify challenges and develop ways we can improve key points in the customer journey.

Hive Link

Throughout every stage of Hive Link's development, we continuously work with focus groups and individual triallists alongside Carers UK, to carefully create a service that meets the social needs of an ageing population by providing families and friends with peace of mind while supporting loved ones to stay living in their homes for longer. Driven by artificial intelligence and 24/7 notifications, feedback from the trial has helped us develop features that work effectively together which include notifications if a change in usual patterns of behaviour is detected, an activity log to see real-time activity and the ability to set up a Circle in the Hive app to share care among family and friends.

Read more in the Business Review on
Pages 20 to 25

> **"We are great fans of repurposing everyday lifestyle technology to support carers, which is why Hive Link is so exciting. It provides reassurance and peace of mind on both sides."**
>
> **Madeleine Starr**
> Director of Business Development and Innovation, Carers UK

Colleagues

We want to be an employer of choice. Central to this is providing a workplace where everyone feels motivated and able to deliver for our customers. Listening to our people and taking action to ensure we have the right culture, policies and practices in place is key. Our people can share their thoughts through surveys, performance reviews, consultations, Yammer and our independent Speak Up helpline. Frequently raised issues include leadership, inclusion, remuneration, training and improving our service offer to customers.

#WeAreListening

Our 2017 employee engagement survey told us that our people wanted more interaction with leaders and to better understand the Company's aspirations. In response, leaders held over 100 in-person and virtual sessions to hear what was on our people's minds, to discuss our strategy and explore how we can grow Centrica together. The sessions generated over 40,000 comments online and provided insight into how to improve our communications, fill jobs internally and develop our people.

Employee networks

We want everyone at Centrica to be themselves and flourish. Our employee networks for carers, women, disability, ethnicity, veterans and LGBT+, provide us with a body we can engage with to help ensure our people can thrive. In 2018 for example, we collaborated with our LGBT+ network to embed more inclusive language across our policies and worked with our women's network to improve our diversity action plans.

Read more about Building the workforce of the future on
Pages 62 to 63

Read more about Workforce engagement on
Page 78

centrica
Dawson

Investors & shareholders

Shareholders provide funds that help us run and grow our business. In return, they want to know that we are a well run company, able to give them sustainable returns on their investment. We regularly meet with large shareholders, attend conferences and respond to requests for further information in addition to our ongoing reporting cycle. Topics discussed span our financial, operational and responsible business activities. Engagement helps investors understand our performance and raise any concerns, supporting our future decision-making.

Annual General Meeting (AGM)

At our AGM, all shareholders can hear about our performance and put questions to the Board of Directors. Members of the Board, Investor Relations and customer service are available before and after the presentation, to speak with shareholders.

Climate Action 100+

At the AGM, representatives of the Climate Action 100+, a group representing investors who collectively manage over USD$30 trillion in assets, asked questions about the action we are taking to tackle climate change. We wanted to have a deeper dialogue so we subsequently set up a roundtable meeting where Iain Conn, Group Chief Executive, and Jim Rushen, Group Head of Environment, shared our long-term vision for enabling customers and the energy system to decarbonise. Engagement enhanced understanding of the role we can play to help shape a low carbon future and has influenced how we will disclose our future progress.

Read more about Shareholder engagement on
Pages 78 to 79

Read more about Enabling all our customers to use energy more sustainably on
Pages 60 to 61

Government & regulators

We actively engage governments, regulators and legislators, either directly or through trade associations. We respond to issues of concern and provide expertise to support policy development around topics such as Brexit and market competition as well as employment and environmental practices. These open conversations and consultations enable us to contribute to government priorities and improve understanding of our business, to ensure the energy system functions in the interests of customers over the immediate and longer term.

Retail choice

Alongside trade associations and large businesses, we engaged the legislature and regulators of California, to make the energy market more competitive and improve consumer choice in North America. Our engagement supported the passage of Senate Bill 237 into law which in phase one, raised the cap on the volume of energy that large energy users can buy directly from competitive energy providers. We aim to build on this progress, with phase two investigating further expansion.

Industry insight

We want the countries where we operate to have the right building blocks in place to respond to the rapidly changing world of energy. We engaged with the UK Government on our Powering Britain report series which illustrates the economic and environmental benefits distributed energy solutions can create if adopted by key sectors. Our findings support the Government's Clean Growth Strategy and we hope it will promote positive policy development.

Read more in Political and Regulatory Intervention on
Page 45

> **"We gained a better understanding of senior management's perspective on the challenges presented by climate change and how this, together with other trends such as digitisation and increasing consumer power, is directly influencing company strategy. We look forward to continuing our dialogue on Centrica's long-term ambition for decarbonisation of heat and power, scenario analysis and shorter-term targets."**
>
> **Bruce Duguid and Andy Jones**
> Hermes ESOS, Lead investor for Centrica under Climate Action 100+

Suppliers

Reliable and ethical supply chains are essential for serving our customers and supporting strong communities. We take great care to treat our suppliers fairly and collaborate to drive high standards in order to maximise opportunities and minimise risks across our supply chain. We interact with our suppliers in a variety of ways including tender and bid processes, surveys, site inspections and events. These interactions cover a broad range of topics such as cost efficiencies and ways of working as well as environmental and modern slavery compliance.

Risk management

We assess suppliers on their social, ethical and environmental standards. If they receive a medium or high-risk rating, we always consider ways we can work together to raise standards and reduce risk. In 2018, we conducted 14 on-the-ground ethical site inspections in a range of countries including Sri Lanka and China, to gain a stronger insight into potential issues and we worked with 12 suppliers to build tailored action plans to deliver necessary improvements.

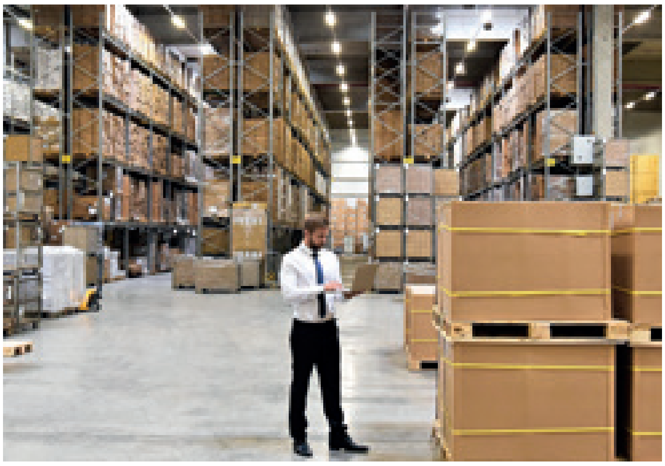
Responsible Sourcing Council (RSC)

We work with third parties to drive responsible procurement practices forward. We attended all RSC events in 2018 which has enabled us to benchmark activities and further embed best practice. We hosted the first RSC meeting of 2019 to share our responsible procurement achievements so that others could learn from our experience as well as collaborate with us to find solutions to some of our challenges.

Read more about Procurement and Supplier Management on
Page 50

“The continued support of Bord Gáis Energy will mean Focus Ireland can prevent more families from becoming homeless in the first place and help to ensure that others already impacted can exit homelessness.”

Pat Denningan
CEO, Focus Ireland



Communities & NGOs

It is important that we make a positive contribution to our communities and join forces to overcome major challenges. To strengthen our impact, we share our knowledge and invite input from a range of stakeholders including NGOs and charities as well as communities more broadly, through methods such as industry working groups, consultations, global partnerships and community investment. The focus of our engagement can vary considerably from environmental protection to tackling enduring social issues.

Cornwall Local Energy Market

In 2018, we continued to work with a community of businesses, households and renewable generators in the UK to test a more flexible energy system that balances demand on the grid, stimulates the growth of renewables and creates opportunities to reduce energy bills. By engaging the local community on the ambitions of this project, we will be able to fully roll-out the trial and technologies such as solar and battery storage to around 150 homes and businesses in 2019.

Focus Ireland

Over the last five years, Bord Gáis Energy has worked with Focus Ireland to help prevent family homelessness, build awareness of the growing homeless crisis nationally and demonstrate the need for further government support. During 2018, we ran a Prevention Campaign to identify those at risk of homelessness, funded advisers and supported homeless families in emergency accommodation. For our efforts, we were awarded the 2018 Corporate Philanthropist of the Year Award by The Community Foundation for Ireland.

Read more about Creating stronger communities on
Pages 64 to 65

Delivering our Responsible Business Ambitions

Our Responsible Business Ambitions will help us realise our strategy to deliver for the changing needs of our customers and be a trusted corporate citizen, an employer of choice and a 21st century energy and services company, driving long-term shareholder value.

The world of energy is evolving, the social and environmental climate we operate in is under pressure and our customers' needs are changing every day. In this rapidly shifting landscape, energy remains at the centre of how we run our lives, and we are determined to use our capabilities to make a positive impact.

Using the UN Sustainable Development Goals as a guide, we have mapped the challenges facing society against our business capabilities, to better understand how we can make the greatest difference. Our biggest responsibilities are to innovate continuously in ways that make our customers' lives easier, to tackle climate change, to create a skilled and inclusive workforce that is capable of driving our business forward and to support our local communities.

That is why in 2019 we are launching our 2030 Responsible Business Ambitions – a set of 15 goals that contribute to a more sustainable world. We will focus on delivering for our customers, enabling all our customers to use energy more sustainably and building the workforce of the future – all of which will help us to create stronger communities.

Our Ambitions are underpinned by our Responsible Business Foundations which ensure we have strong underlying policies, processes and practices in place to get the basics right and act with integrity.

We are confident that this approach will maximise the positive impact we have in society and put us in the best position to succeed as a business now, through the energy transition and beyond.

The subsequent pages share the progress we have made across our focus areas during 2018 and we look forward to reporting in full against our new goals next year.

Non-financial reporting statement

In line with the Non-Financial Reporting Directive, we have set out where the relevant information we need to report against can be found:

- Business Model (pages 16 to 17)
- Anti-Bribery and Corruption (page 65)
- Whisteblowing (pages 65 and 85)
- Human rights (pages 65 and 111)
- Social matters (pages 58 to 59 and 64 to 65)
- Environmental protection (pages 54, 60 to 61 and 85 to 86)
- Employees (pages 53, 62 to 63, 78 and 85 to 86)

Where principal risks have been identified in relation to any of the matters listed above, these can be found on pages 41 to 51.

Explore more about our Responsible Business Ambitions at
centrica.com/responsibility

View Our Code, policies and standards at
centrica.com/ourcode

Read our full set of Key Performance Indicators on
Pages 18 to 19

Our 2030 Responsible Business Ambitions

Helping you run your world in ever more sustainable ways

Our ambition for Customers

Delivering for our customers

Through the latest innovations and a commitment to service, we're making our customers' lives easier

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Deliver solutions to make our customers' lives easier

- Help customers understand and manage their energy better*
- Give customers peace of mind through tailored propositions and connected technologies
- Develop solutions to help our customers run their worlds

Satisfy our customers with excellent service

- Make it simpler for people to deal with us in ways that work for them

Our ambition for Climate change

Enabling all our customers to use energy more sustainably

We're helping to shape a low carbon future by enabling our customers, the energy system and our business to use energy more sustainably

7 AFFORDABLE AND CLEAN ENERGY

Help our customers reduce emissions in line with Paris goals

- Help our customers reduce emissions by 25%, by direct (3%) and indirect action*

Enable a decarbonised energy system

- Deliver 7GW of flexible, distributed and low carbon technologies as well as provide system access and optimisation services

Reduce our own emissions in line with Paris goals

- Demonstrate we are on track with Paris goals and develop a path to net zero by 2050

Our ambition for Colleagues

Building the workforce of the future

We're developing vital skills and a more inclusive workforce to ensure we deliver for our customers

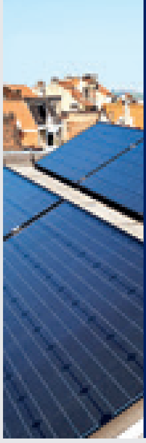
5 GENDER EQUALITY

Empower people with future skills

- Inspire and develop 100,000 people with essential STEM skills

Build a more inclusive workplace

- Attract and develop more women into STEM with 40% of STEM recruits to be female*
- Aspire for senior leadership to reflect the full diversity of our labour markets
- Help 1 million carers stay in or return to work via active promotion of carer-positive policies



Our ambition for Communities

Creating stronger communities

By offering our knowledge and expertise, we're empowering communities to take control of their energy and tackle pressing social issues

Apply new energy technologies to drive positive change

- Deliver £5 billion of value for communities through new and distributed energy technologies*
- Deliver £300 million in energy efficiency savings to public and essential services

Collaborate across sectors to improve local communities

- Encourage our people to share their skills by volunteering over 100,000 days
- Deliver 2,500 skills development opportunities for young people not in education or employment

11 SUSTAINABLE CITIES AND COMMUNITIES

Our Responsible Business Foundations

Our Ambitions are underpinned by strong foundations that ensure our business operates with integrity

* Flagship goal

Delivering for our customers

Through the latest innovations and a commitment to service, we are making our customers' lives easier

Deliver solutions to make our customers' lives easier

We aim to deliver innovative products and services that provide customers with peace of mind and save them time and money. Cumulatively, we have sold nearly three million Hive connected home products which give customers greater control with just a tap on the app – from smart thermostats, plugs, lights and cameras, to contact and motion sensors. This has led to 82% of customers saying Hive has given them a simpler way of controlling their home. In the UK, Hive products have been accredited by security experts and the police as effective tools for preventing crime.

In 2019, we took our first steps into connected care with the launch of Hive Link. Developed in partnership with Carers UK, Hive Link helps carers check that their loved ones are getting on with their day as usual if they cannot be there with them. It also provides reassurance to the loved one that someone is there if needed. This is made possible through Hive Link's ever-learning algorithm that continually interprets data captured through Hive sensors and plugs placed carefully around the home. These trigger an alert if there is an unusual change from normal patterns of behaviour, such as the front door being left open for longer than normal. This increased level of awareness gives carers peace of mind and helps them enjoy conversations with their loved ones that are less about checking up, and more about having a normal chat. Since launching, Hive Link has won an award for innovation in the Tech for a Better World category at the Consumer Electronics Show, the world's largest consumer technology event.

Our leadership of the UK's smart meter roll-out is helping homes and businesses to run more smoothly by providing accurate bills and insight into how much energy is being used and its costs in real-time. To date, we have installed nearly seven million smart meters.

Another way we are helping customers improve the way they manage their energy is with our Fixed Energy Plus offer for businesses in North America. The offer gives large energy consumers access to real-time usage and alerts them when there is a peak load on the grid, so that they can proactively lower their usage and be rewarded with lower capacity costs.

Distributed energy solutions are also making it possible for businesses to operate and optimise their energy like never before. In 2018, we expanded our offer from Centrica Business Solutions to the Republic of Ireland, Netherlands and Hungary, giving more customers the opportunity to improve performance, strengthen resilience and create opportunities for growth by using distributed energy technologies. To build resilience further, we are looking to offer enhanced cyber-security solutions based on capabilities acquired through our Centrica Innovations investment in Indegy, which detects anomalies using advanced machine learning and alerts businesses to unexpected behaviour or malicious activity.

£100m

Investment in our Centrica Innovations fund to accelerate new technologies and ideas that transform our customers' lives

Nav Dhinsa
@NaavKD *You know you're old when you get excited by the new* @HiveHomeUK *thermostat that was fitted this morning!*

Being able to control my heating and hot water on my phone is what was missing in my life.

23 Oct 2018

Kerry Thompson
@kerrymThompson *If it wasn't for the amazing quality of* @HiveHomeUK *camera & detection we never would have known someone was in our house without permission! When travelling home from the airport... so thank you Hive* 🙌❤️

19 Oct 2018

Satisfy our customers with excellent service

We are investing in digital capabilities that enhance our service and enable customers to get in touch with us when and how they want. This includes creating the next generation British Gas mobile app and web platform as well as deploying intelligent voice recognition and artificial intelligence in call centres to help us manage enquiries more efficiently. We have also upgraded our webchat which supported an increase in digital interactions from homes and businesses that totalled more than 2 million in the UK alone during 2018. Meanwhile, North America Business enhanced their web enrolment experience while the Hive app was strengthened with 'Live Chat' customer service capabilities. Steps like these will, over time, help to improve customer satisfaction and has already contributed to our aggregated Net Promoter Score rising by 0.06 points to +10.0†.

Technology helps to create a better world for people with disabilities. Increased use of webchat has made it easier for customers who struggle using a phone to contact us. We also supported the development of a smart meter accessible in-home display which improves access to energy insights for customers with visual impairments and is due to launch in 2019.

† Included in PwC's limited assurance engagement. See page 238 or centrica.com/assurance for more details.

Read more in the Business Review on
Pages 20 to 24

Our Responsible Business Foundations

In addition to our ambition areas, we want to ensure that we care for our customers whenever they need a helping hand. In 2018, we trained our call centre advisers in how to serve our customers better and we continued to roll-out complaints programmes such as Right First Time, to ensure we resolve issues more quickly. Moreover, improvements such as our online automated claims system in Home Warranty of America, has helped claims progress more smoothly which has reduced complaints and cut calls per claim by 25%. With this focus, our aggregated complaints per 100,000 customers fell by 8% to 3,453. In 2018, we helped around 826,000 vulnerable customer households. This included 629,500 customers via the UK's Warm Home Discount scheme and nearly 2,700 customers through North America's Neighbor-to-Neighbor bill assistance programme. An additional 29,000 customers and non-customers were supported with energy and debt advice through the British Gas Energy Trust.

Read more about how we are Here for you when you need us most on
Pages 30 to 31

"I provide assistance to our most vulnerable customers. I'm here to listen, no matter what the situation and I strive to find the individual journey of support that is needed for each customer, every time."

Rachael Steel
UK Home Debt Customer Care Agent

Enabling all our customers to use energy more sustainably

We are helping to shape a low carbon future by enabling our customers, the energy system and our business to use energy more sustainably

Help our customers reduce emissions

With over 90% of our carbon emissions arising from customer consumption, the greatest contribution we can make in tackling climate change is to provide them with more sustainable ways to manage their energy. Since 2008, our products and services have enabled customers to save nearly 35mtCO_2e which is equivalent to the annual emissions of around 11 million UK homes.

In 2018 for example, we:

- sold over 300,000 Hive smart thermostats that help customers manage their heating and hot water better, the benefit of which was recognised by the US Environmental Protection Agency which awarded the product an Energy Star rating for enabling customers to protect the environment and save money;
- became the first major UK energy supplier to achieve accreditation by the Carbon Trust for our renewable tariff for business customers; and
- acquired Vista Solar, a leading Californian solar engineering, procurement and construction company to strengthen our ability to deliver solar as part of our distributed energy offer.

Enable a decarbonised energy system

We are helping create a cleaner energy system by pioneering end-to-end solutions that enhance grid flexibility, support renewables and reduce reliance on fossil fuels.

Towards this in 2018, we:

- continued to grow the infrastructure for a low carbon transport system, having installed around 17,000 electric vehicle charge points since 2013 and invested in start-up, Driivz, to develop end-to-end solutions for charging (see page 29);
- invested in the development of a Linear Generator that offers more affordable, flexible and clean onsite generation via Californian start-up, EtaGen;
- strengthened the route-to-market for renewables by balancing and trading power production via wind farm agreements across Europe including 235MW in Sweden and 315MW in Italy; and
- progressed our £180 million investment in flexible generation and storage facilities by completing construction at one of the largest battery storage facilities in Europe as well as at two new fast response power plants.

> "Centrica Business Solutions has helped us reduce energy costs and become more energy efficient. Implementing these energy saving solutions has not only allowed us to reduce our carbon emissions, it has also helped us define a long-term energy management strategy."
>
> **Paul Wilkinson**
> Senior Projects Manager, Durham County Council

Powering sustainability across key sectors

11%

Potential annual carbon footprint saving if just 50% of the UK's Industry, Healthcare and Hospitality & Leisure sectors took up distributed energy technologies

Read our report in full at
centrica.com/poweringsustainability

Read more about being A trusted energy partner for business customers on
Pages 32 to 33

Reduce our own emissions

We now produce over 80% less carbon than we did a decade ago. This is the result of our strategic decision to move away from being a traditional utility that operates generation assets, to become a customer-facing energy supply and services company. This transformation is reflected in our 2018 total carbon emissions which decreased by 58% while the carbon intensity of our Central Power Generation also declined by 58% to 53gCO_2/kWh.

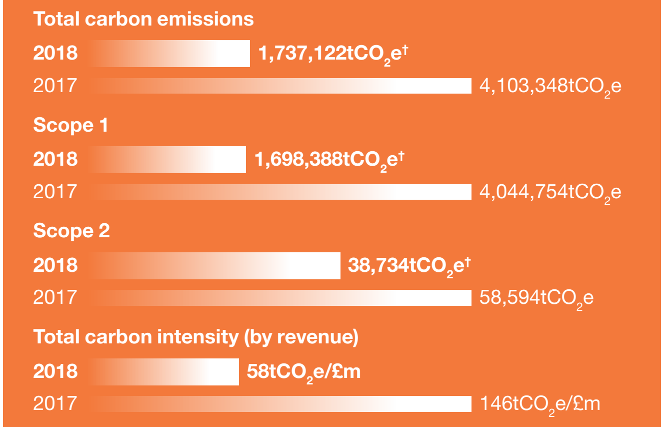
Our internal carbon footprint reduced by 10% during 2018. This brings our overall reduction to 26% which means we have met our 20% carbon reduction target for 2015-25 early. The decline was achieved through planned low carbon fleet and property initiatives, alongside reductions arising from the restructuring of our business. We have extended our target to reduce emissions by 35% by 2025.

Our Responsible Business Foundations

In addition to cutting our carbon emissions, we also work hard to monitor, manage and reduce our wider environmental impact in areas such as water use and waste. While we do not undertake water-intensive activities or operate in water-stressed zones, we constantly seek to minimise our use of this vital resource. Our total water use and waste generated decreased significantly in 2018, reflecting our strategic shift away from operating large-scale energy assets.

Read more about our wider environmental performance at
centrica.com/datacentre

Our total carbon emissions



We report on an equity basis with practices drawn from WRI/WBCSD Greenhouse Gas Protocol, IPIECA'S Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions and Defra's Environmental Reporting Guidelines.

† Included in PwC's limited assurance engagement. See page 238 or centrica.com/assurance for more details.

Task Force for Climate-related Financial Disclosures (TCFD)

We are committed to transparent reporting and continuously improving our external disclosures, including further alignment with the recommendations of the TCFD. Our strategy is based on a world which is moving towards a lower carbon future and our governance structure ensures Board oversight of climate-related matters. We have already assessed our strategy against the risks and opportunities of decarbonisation scenarios in the UK and believe we are well placed to succeed in the energy transition. We intend to further strengthen the positive impact we can have on making energy more sustainable by expanding our assessment of decarbonisation scenarios, setting targets agreed by the Board and through deeper integration in our business processes.

Explore more about our TCFD journey at
centrica.com/TCFD

Read more about engagement with Investors & shareholders on
Page 54

We are a world leader for disclosure and action on tackling climate change

CDP™
DISCLOSURE INSIGHT ACTION

Building the workforce of the future

We are developing vital skills and a more inclusive workforce to ensure we deliver for our customers

Empower people with future skills

We are building the workforce of the future by developing essential skills that enable our people to thrive and plug the growing shortage of STEM (Science, Technology, Engineering and Maths) skills in our sector. In the first six months since we launched our Career Development Hub and specialist Learning Academies in 2018, we have seen over 13,000 of our people enhance their capabilities. A diverse talent pipeline is also being built through the expansion of our world-class engineering apprenticeships into new areas such as leadership, management and digital. In addition, we grew the skills of 500 young people on our graduate and work experience programmes.

Build a more inclusive workplace

Having a vibrant and diverse workforce that reflects the world around us is key to understanding and satisfying the changing needs of our customers. That is why we are passionate about creating an inclusive place to work where everyone can be themselves and build a successful and fulfilling career. This will enable us to attract, develop and retain our talented workforce.

In 2018, we:

- inspired the next generation of young girls to explore a career in STEM by working with the Royal Academy of Engineering to showcase strong female role models that demonstrate how exciting a career in energy can be;
- strengthened recruitment processes to attract more diverse candidates – from challenging recruiters to draw up gender-balanced shortlists to undergoing unconscious bias training; and
- progressed our carer-positive culture by continuing to offer a generous paid leave allowance to carry out carer responsibilities while also providing a vital source of support via our 1,000-strong Carers Network in the UK and launching a new disability and caregiver employee network in North America.

We received recognition for our diversity and inclusion efforts in 2018. This included Business in the Community's Best Employers for Race Award and our Group Chief Executive being ranked as a Top 30 Ally Executive in the Financial Times' OUTstanding 50 Ally Executives 2018 List.

Our diversity

Our business and sector traditionally lacks diversity. But we are confident that the action we are taking to improve inclusion will, over time, help ensure our workforce reflects our labour markets.

Our gender breakdown

	2018[1]				2017			
	Female		Male		Female		Male	
	Headcount	Percentage	Headcount	Percentage	Headcount	Percentage	Headcount	Percentage
Board of Directors	**2**	**17**	**10**	**83**	3	25	9	75
Senior management	**277**	**28**	**703**	**72**	278	28	719	72
All employees	**8,723**	**29**	**21,359**	**71**	9,246	29	22,349	71

[1] Gender of three employees is unknown.

Our ethnic minority breakdown

Our breakdown is based on employees who have voluntarily declared that they are from a Black, Asian, Mixed/Multiple ethnic or other ethnic group.

	2018[1]		2017[2]	
	Headcount	Percentage	Headcount	Percentage
Board of Directors	**0**	**0**	0	0
Senior management	**86**	**9**	77	9
All employees	**3,683**	**12**	3,916	12

[1] Of this, 65% of employees disclosed their ethnicity.
[2] Of this, 62% of employees disclosed their ethnicity.

Headcount as at 31 December 2018 differs from numbers referenced elsewhere in the Annual Report and Accounts 2018 due to different methodologies. To accurately reflect the full diversity of our workforce, we use overall headcount numbers rather than a headcount based on their full-time equivalent.

Read more about improving diversity in Nominations Committee on
Page 88

Our Responsible Business Foundations

While we focus on building the workforce of the future, it's essential that we provide an environment where our people feel safe, engaged and rewarded. As part of this, we aspire to create an environment where an incident-free workplace is possible. In 2018, our process safety incident frequency rate (Tier 1 and 2) per 200,000 hours worked improved by 57% to 0.06%†. However, we experienced one† significant process safety event (Tier 1) compared to zero in 2017. This involved an uncontrolled release of gas but resulted in no injuries. Alongside the robust initiatives we have in place to continuously improve physical health, we also strengthened our capabilities to support mental wellbeing in 2018. This can be demonstrated with the creation of our 300-strong network of Mental Health First Aiders.

Having an engaged workforce is crucial. Following feedback from our employee engagement survey in 2017, we implemented initiatives to address issues raised which has contributed to our engagement score improving by 3% to 55%† favourable.

We have robust processes in place to uphold equal pay and reward our people fairly which includes paying at least the Living Wage in the UK and reducing our gender pay gap. Rather than our gender pay gap being due to unequal pay, it is driven by more men working in higher-paid, traditionally male-dominated technical roles such as engineering. While we are actively taking steps to close our gender pay gap through our inclusion activities (see left), we recognise that progress will occur over the long term, with annual performance likely to fluctuate due to changes in the composition of our workforce and business performance. In 2018, our mean gender pay gap increased by 3% to 15% while our median gender pay gap rose by 1% to 31%.

† Included in PwC's limited assurance engagement.
See page 238 or centrica.com/assurance for more details.

Read more in Performance Measures on
Page 240

Read more about Workforce engagement on
Page 78

Explore our Gender Pay Statement at
centrica.com/genderpay

> **"I've got a PhD in thermostats and usability and that's led me to a fantastic career. I've seen women leading teams, women leading projects and now I'm doing it myself and hopefully for the other young girls in the team, I'm a bit of a role model."**

Nicola Combe
Global Product Lead, Centrica Hive

Gender Pay Gap Reporting of the Year

Our transparent disclosure and commitment to reduce the gender pay gap was recognised at the 2018 ICSA Awards which celebrates excellence in governance and annual reporting

57%

Improvement in process safety incident frequency rate (Tier 1 and 2)

300

Number of employee Mental Health First Aiders

Creating stronger communities

By offering our knowledge and expertise, we are empowering communities to take control of their energy and tackle pressing social issues

Apply new energy technologies to drive positive change

We are building future energy systems that give communities the power to take control of their energy. This increases their energy resilience, reduces their environmental impact and unlocks financial savings that can be used to build a more productive and prosperous economy that benefits everyone.

Towards this in 2018, we:

- continued to test how flexible demand, generation and storage can support the grid during peak times, help stimulate the growth of renewables and create opportunities to reduce energy bills as part of the UK's Cornwall Local Energy Market;
- joined forces with machine learning start-up, Verv, on the next phase of a community energy trial in Hackney that aims to explore how peer-to-peer trading using blockchain technology can reduce customer bills in the UK;
- rolled out blockchain technology at North America's first customisable energy market for businesses in Texas, allowing them to better manage their energy demand;
- supported Bridgeport Microgrid in Connecticut, North America, to provide flexible but dependable clean power in times of natural disaster or when the main electrical grid fails; and
- helped create public sector savings with distributed energy technologies at St George's Hospital in Tooting, UK, which officially opened in 2018 following a major overhaul of its energy centre and is projected to save them £1 million each year.

> **"By saving £1 million annually for the next 15 years, the contract will go a long way to help us maximise the resources we can put into patient care. It also massively cuts our carbon emissions and improves our overall sustainability."**
>
> **Kevin Howell**
> Director of Estates & Facilities,
> St George's University Hospitals NHS Foundation Trust

If just 50% of the Industry, Healthcare and Hospitality & Leisure sectors took up distributed energy solutions, the potential economic benefits to the UK would be:

£18.5bn
Gross value added to the economy

1.5%
Boost to economic output

£980m
Annual energy bill savings across the three sectors

Read our report in full at
centrica.com/economicfuture

Collaborate across sectors to improve local communities

We are tackling issues that our communities and business care passionately about. Through the Movement to Work scheme, we gave over 350 young, unemployed people the opportunity to gain workplace skills in 2018. Nearly 1,450 people have benefited from the scheme over the last five years and we have committed to provide a further 350 places in 2019. Volunteering is also a great way for our people to share their skills with communities as well as develop new ones. During 2018, our people volunteered over 39,100 hours which was 32% lower than 2017, and was partly due to a transition in how our people log their volunteering hours.

Our flagship partnerships

We are supporting our communities through volunteering and fundraising with partners.

4.2m

Lives of children and their families improved through support of local hospitals in North America

Children's Miracle Network Hospitals

(2014–Ongoing)

5,200

Families in Ireland experiencing homelessness were supported

FOCUS Ireland

(2015–Ongoing)

£1m

Employee fundraising target established to help make life better for carers

carersUK

(2018–2021)

Our Responsible Business Foundations

Alongside our ambition to create stronger communities, we also aim to protect and enhance the communities where we operate as part of our commitment to being a trusted corporate citizen.

Our Code and Our Values ensure that we operate in a way that is beneficial to society by setting out the high standards and behaviours we expect from everyone who works for us or with us. For example, Our Code helps to guard against bribery and corruption by providing clear guidance that includes condemning payments we feel to be improper and taking extra care when offering or receiving gifts and hospitality. It also sets out our commitment to respect and uphold human rights. This can be further demonstrated through our response to the UK's Modern Slavery Act, where we have put in place a detailed action plan to monitor and reduce the risk of forced or compulsory labour in our business and supply chain through initiatives such as training and on-the-ground ethical site inspections. It is important that our people embrace the spirit of Our Code and in 2018, 96% of our people completed training and certified that they would uphold it.

In addition, we relaunched our Speak Up helpline which allows for the confidential reporting of potential violations of laws, regulations and company policies, to help ensure we are a well run and successful business.

We want to share our success with our communities and in 2018, we invested £149 million in mandatory, voluntary and charitable contributions. This includes our support for vulnerable customers (see page 59) as well as our flagship charity partnerships (see left). An additional £215 million was provided to governments in taxes which provide vital funds for public services.

We also help our communities to flourish by supporting around 30,000 suppliers and by using our purchasing power as a force for good. In 2018, we assessed a further 69 suppliers on their social, ethical and environmental standards, resulting in a sustainability score of 54 (low risk). This is better than the multi-industry average of 42 (medium risk). If suppliers receive a medium or high-risk rating, we consider appropriate next steps which may involve working together to raise standards, conducting an on-the-ground ethical site inspection to better understand their business, or terminating our relationship and reporting the abuse if they continue to fall short of our expectations.

Explore more about Our Values and Our Code at
centrica.com/ourcode

Read more about our Modern Slavery Statement at
centrica.com/modernslavery

Read more about Our View on Taxation on
Page 40

The Strategic Report, which has been prepared in accordance with the requirements of the Companies Act 2006, has been approved by the Board and signed on its behalf by:

Grant Dawson
Group General Counsel
& Company Secretary

20 February 2019

Directors' and Corporate Governance Report

Rick Haythornthwaite
Chairman

> **"At Centrica we recognise the importance of effective corporate governance in supporting the long-term success and sustainability of our business."**

Dear Shareholder

I am once again pleased to confirm that your company has fully complied with the principles and provisions of the 2016 UK Corporate Governance Code (the 2016 Code) throughout the year. The pages that follow will illustrate how your Board ensures that Centrica has effective corporate governance in place to support the creation of long-term value for shareholders and for stakeholders more generally.

Corporate governance

At Centrica we recognise the importance of effective corporate governance in supporting the long-term success and sustainability of our business. Sound corporate governance enables clear and consistent delegation of authority from the Board to senior management and beyond in order to promote robust, informed and transparent decision-making. It also promotes effective stewardship to ensure the delivery of strategic objectives and sustainable success. We strive to maintain a robust and effective governance framework which supports the application and execution of our strategy and remains consistent with Our Values and behaviours. The Board sets the right tone for the organisation including the right culture, values and behaviours that are intended to protect and promote the long-term success of the business. There has been considerable focus on corporate governance recently and we expect this to continue.

Disappointingly, well publicised failures in corporate culture, governance and performance, again dominate the media headlines. Businesses should be held to account for these failings, but it is important to recognise that these failures are few in number. Considerable progress has been made in improving standards of corporate governance across the business sector in recent years.

Centrica engaged with the Financial Reporting Council's (FRC) public consultation in 2017 and 2018 on the proposed revisions to the 2016 Code. The Board welcomes the new reporting legislation around stakeholder disclosure and executive remuneration and the Corporate Governance Code revisions that have been implemented. Many of the initiatives being promoted by the FRC, including those relating to corporate culture and values, diversity and inclusion, strengthening the stakeholder voice and adopting and operating appropriate remuneration structures, are areas of focus for the Board in 2019 and beyond. The Directors' and Corporate Governance Report which follows explains how we are approaching these important issues.

Board refreshment and succession planning

The Board and the Nominations Committee devoted considerable time to succession planning during the year. As part of a structured and continuous process of Board refreshment, 2018 saw a number of changes to the Board. Centrica embraces the importance of diversity and inclusion in all Board recruitment and supports the recommendations of the Hampton-Alexander and Parker Reviews in relation to gender and ethnic diversity.

Despite our intention to appoint females to the Board and the search criteria being sufficiently wide so as to encourage a diverse range of candidates, no females were appointed to the Board during the year. However, we announced in January 2019 the appointment of Pam Kaur as a Non-Executive Director. Pam replaces Lesley Knox who stepped down from the Board at the end of 2017.

Jeff Bell, Group Chief Financial Officer, stood down from the Board in October and in July, Mark Hanafin, Chief Executive, Centrica Business, announced his retirement. I am pleased to welcome their successors, Chris O'Shea and Richard Hookway, who were appointed to the Board in November and December, respectively. In December, we announced that Mark Hodges, Chief Executive, Centrica Consumer would be stepping down from the Board in February 2019. I am delighted to welcome his successor, Sarwjit Sambhi, an internal candidate, to the Board in March 2019. I would like to thank Jeff, Mark and Mark for their significant contributions to Centrica.

During the year, a search process was initiated for a Non-Executive Director to succeed Margherita Della Valle, Chairman of the Audit Committee, who will step down from the Board in 2019 having completed her nine-year term in office. I am pleased to report that Kevin O'Byrne will join the Board in May 2019 and will replace Margherita as Chairman of the Audit Committee.

Having served as a member of the Remuneration Committee since 1 January 2011, Margherita stepped down from the Committee with effect from 17 October 2018 and was succeeded by Stephen Hester.

In May 2018 I announced my intention to step down from the Board during the course of the next 12 months after serving approximately six years. I am delighted that, following a robust process led by Stephen Hester, our Senior Independent Director, I will be succeeded by Charles Berry who joined our Board in October. Charles's breadth of international energy and engineering knowledge and a long track record of successful leadership of businesses across industrial, minerals, telecommunications and retail sectors over the last 20 years, stand him in an excellent position to succeed me and to lead the Centrica Board. Charles also has extensive experience in both the UK and the US of the regulatory framework of the energy and service markets. I would like to thank Stephen for his leadership of the process to identify and appoint Charles to the role and I wish Charles and the Centrica Board every success.

Board effectiveness review

The Board carries out an annual evaluation of its effectiveness. Having undertaken internal evaluations in the previous two years and in accordance with the 2016 Code, an externally facilitated evaluation was completed in 2017/18. The results of this review are set out on page 77.

Conclusion

The Directors' and Corporate Governance Report which follows has been prepared in order to provide shareholders with a comprehensive understanding of Centrica's governance framework under the 2016 Code, the UK Listing Rules and the Disclosure and Transparency Guidance. I hope that you find the Report informative and engaging.

Rick Haythornthwaite
Chairman
20 February 2019

Governance at a glance

The Board is responsible for promoting the overall success of the Company. In doing so, it delegates certain responsibilities to Board Committees and executive management. Details of the Board Committees and their activities during the year are set out on pages 80 to 91.

The Board delegates authority to the Group Chief Executive for the execution of strategy and the day-to-day management of the Group. The Board oversees, guides and challenges executive management in the execution of these activities.

The Board is supported in its role by Centrica's Governance Framework, which is set out on page 73. The five sub-committees of the Board provide detailed focus to different areas of the Board's work, with their specific responsibilities and authority set out in their Terms of Reference. The Board regularly reviews the remit, authority, composition and Terms of Reference of each Committee.

2016 UK Corporate Governance Code

Effective corporate governance provides an essential foundation for the long-term success of the Company. This report sets out the key elements of Centrica's corporate governance arrangements, including how we have sought to apply the principles and provisions of the 2016 Code during the year. The Board confirms that, up to the date of this Report, it fully complied with the 2016 Code.

The 2016 Code and associated guidance are available on the Financial Reporting Council website at frc.org.uk. The index on page 111 sets out where to find each of the required disclosures in respect of Listing Rule 9.8.4 and Disclosure and Transparency Rules 4.1.5R and 7.2.1.

Culture and Values

The Board recognises the importance of its role in setting the tone of Centrica's culture and values. Our Code, which replaced Centrica's former Business Principles and codes of conduct, was launched globally on 31 January 2018. During the year, the Board had a number of opportunities to engage both formally and informally with colleagues from across the business enabling a better understanding of the extent to which Our Values – care, delivery, collaboration, agility and courage – have been embedded throughout the Group. Our Code along with Our Values underpin everything that we do.

Looking forward

The Board intends to maintain high standards of corporate governance across the Group and believes this is integral to the delivery of our strategy. The Board remains focused on creating sustainable long-term value for the benefit of our shareholders and stakeholders.

Board of Directors

Full biographies can be found at
centrica.com/board

C Chairman of the Board
DC Disclosure Committee
RC Remuneration Committee
● Denotes Committee Chairman
AC Audit Committee
NC Nominations Committee
SC Safety, Health, Environment, Security & Ethics Committee

Rick Haythornthwaite

Iain Conn

Chris O'Shea

Charles Berry

Margherita Della Valle

Joan Gillman

Richard Hookway

Stephen Hester

Mark Hodges

Pam Kaur

Carlos Pascual

Steve Pusey

Scott Wheway

Rick Haythornthwaite
Chairman

C NC

Rick joined the Board as a Non-Executive Director on 14 October 2013. He was appointed Chairman of the Board on 1 January 2014 and was Chairman of the Nominations Committee. He stepped down from the Board on 20 February 2019.

Skills and experience

Rick has a wealth of knowledge in the energy industry and has significant board experience, both as an executive and non-executive director. He led the rescue of Invensys from 2001 to 2005 and the defence, turnaround and subsequent sale of Blue Circle Industries from 1997 to 2001. He has served on the boards of Network Rail as chairman and Cookson, Lafarge, ICI and Land Securities as a non-executive director.

External appointments

Chairman of the board of MasterCard International, QIO Technologies and Arc International and an advisory partner at Moelis & Company.

Iain Conn
Group Chief Executive

DC

Iain was appointed Group Chief Executive on 1 January 2015 and is Chairman of the Disclosure Committee.

Skills and experience

Iain possesses a deep understanding of the energy sector built up over a lifetime in the industry and has demonstrated strong commitment to customers, safety and technology. Iain was previously BP's chief executive, downstream (BP's refining and marketing division) a position he held for seven years. Iain was a board member of BP for 10 years from 2004 and had previously held a number of senior roles throughout the organisation in trading, exploration and production and the management of corporate functions such as safety, marketing, technology and human resources.

External appointments

Non-executive director of BT Group plc.

Chris O'Shea
Group Chief Financial Officer

DC

Chris was appointed Group Chief Financial Officer on 1 November 2018.

Skills and experience

Chris is an experienced listed company chief financial officer with considerable experience of complex, multi-national organisations, not only in the energy sector but also in technology-led engineering and services industries. Prior to joining Centrica, Chris was group chief financial officer of both Smiths Group plc and Vesuvius plc, and a non-executive director of Foseco India Ltd, an Indian-listed supplier to the foundry industry. From 2006 to 2012 Chris held various senior finance roles with BG Group plc, including chief financial officer of Europe and Central Asia, prior to which he held a number of senior roles with Royal Dutch Shell plc in the UK, the US and Nigeria, and with Ernst & Young.

External appointments

Chairman of the Tax Committee of the 100 Group of UK Finance Directors.

Charles Berry
Non-Executive Director

C NC

Charles joined the Board as a Non-Executive Director on 31 October 2018 and was appointed Chairman of the Board and Nominations Committee on 21 February 2019.

Skills and experience

Charles brings a wealth of international energy and engineering knowledge and a track record of successful leadership of businesses across the industrial, minerals, telecommunications and retail sectors. He also has extensive experience, in both the UK and US, of the regulatory framework of the energy and service markets. Charles is chairman of The Weir Group PLC. He previously held chairman roles at Senior plc, Drax Group plc, EAGA plc and Thus Group plc. Charles has also held executive roles at Scottish Power plc and Pilkington plc.

External appointments

Chairman of The Weir Group PLC and member of the steering group of the Hampton-Alexander Review.

Margherita Della Valle
Non-Executive Director

AC NC SC

Margherita joined the Board on 1 January 2011 and is Chairman of the Audit Committee. Margherita will step down from the Board on 12 May 2019.

Skills and experience

Margherita brings considerable corporate finance and accounting experience and she has a sound background in marketing. She was chief financial officer of Vodafone's European region from April 2007 to October 2010 and chief financial officer of Vodafone Italy from 2004 to 2007. Previously she worked for Omnitel Pronto Italia and held various consumer marketing positions in business analytics and customer base management before moving into finance.

External appointments

Group chief financial officer of Vodafone Group Plc and member of the VodafoneZiggo Board.

Joan Gillman
Non-Executive Director

NC SC

Joan joined the Board on 11 October 2016.

Skills and experience

Joan is a former executive vice president of Time Warner Cable, as well as chief operating officer, Time Warner Cable Media and president, Time Warner Cable Media LLC. Prior to its acquisition by Charter Communications, Time Warner Cable was the second-largest cable company in the United States, operating in 29 states and generating over $23 billion in annual revenue. Joan led one of the company's three operating divisions, doubling revenues and overseeing the company's big data strategy.

External appointments

Director of Airgain, Inc., InterDigital, Inc. and Cumulus Media, Inc.

Richard Hookway
Chief Executive, Centrica Business

Richard was appointed Chief Executive, Centrica Business on 1 December 2018.

Skills and experience

Richard worked in the energy sector for 35 years at BP plc. His last role was serving as group chief operating officer for Global Business Services and IT. Prior to this Richard spent seven years as CFO for BP's Downstream division which includes customer-facing businesses, refining and marketing and the P&L for BP's oil trading activities. He previously held a number of senior commercial roles both in the UK and in North America including head of the Natural Gas Liquids business based in Houston and the Commercial and Industrial Marketing business for Europe. He also held positions in trading, exploration and production, petrochemicals and in group functions.

External appointments

Non-executive director of EDF Energy Nuclear Generation Group Limited (representing Centrica).

Stephen Hester
Senior Independent Director

AC NC RC

Stephen joined the Board on 1 June 2016 and is the Senior Independent Director.

Skills and experience

Stephen has wide-ranging experience, particularly in customer-facing businesses, together with recognised expertise in transforming business performance. He has a deep knowledge of operating within highly regulated businesses and over 30 years' experience in financial services and FTSE 100 companies. Stephen was previously chief executive officer of Royal Bank of Scotland Group plc where he led their largest-ever corporate restructuring and recovery programme.

External appointments

Group chief executive of RSA Insurance Group plc.

Mark Hodges
Chief Executive, Centrica Consumer

Mark joined the Board on 1 June 2015 and will step down on 28 February 2019.

Skills and experience

Mark brings a strong understanding of the UK consumer market and a track record in improving business performance. He is experienced in working in a regulated environment, driving significant improvements in customer service and managing efficiency, 'offer innovation', major IT and change projects. Mark was group chief executive officer of Towergate Partnership. Prior to this he spent over 20 years with Norwich Union and Aviva plc in a variety of finance, planning and strategy roles. He was a member of Aviva's board and executive committee.

External appointments

Director of Energy UK (representing Centrica).

Pam Kaur
Non-Executive Director

AC NC

Pam joined the Board on 1 February 2019.

Skills and experience

Pam has extensive experience in audit, business, compliance, finance and risk management, having previously held various senior roles at global financial institutions including Citigroup, Lloyds TSB, the Royal Bank of Scotland and Deutsche Bank, and has worked with regulators and supervisory boards across the world. Pam has an MBA in finance and a BCom (Hons) from Panjab University in India and is a qualified chartered accountant.

External appointments

A Group Managing Director and Group Head of Internal Audit at HSBC Holdings plc and Chair of the Financial Services Faculty Board.

Carlos Pascual
Non-Executive Director

NC RC SC

Carlos joined the Board on 1 January 2015.

Skills and experience

Carlos has held a number of senior positions in the energy industry as well as being a prominent public figure in energy geopolitics and economic and commercial development. Between 2011 and 2014 Carlos established and directed the US State Department's Energy Resource Bureau. Until August 2014 Carlos was special envoy and coordinator for international energy affairs, acting as senior adviser to the US Secretary of State on energy issues. He has also served as US ambassador in Mexico and Ukraine.

External appointments

Non-resident senior fellow at the Centre on Global Energy Policy, Columbia University and senior vice president for global energy at IHS Markit.

Steve Pusey
Non-Executive Director

AC NC SC

Steve joined the Board on 1 April 2015 and is Chairman of the Safety, Health, Environment, Security & Ethics Committee.

Skills and experience

Steve has a wealth of international experience as a senior customer-facing business technology leader. He has a long track record in the telecommunications industry, in both the wireline and wireless sectors, and in business applications and solutions. Steve has worked for Vodafone, Nortel and British Telecom and is a graduate of the Advanced Management Program at Harvard University.

External appointments

Non-executive director of FireEye, Inc.

Scott Wheway
Non-Executive Director

NC RC SC

Scott joined the Board on 1 May 2016 and is Chairman of the Remuneration Committee.

Skills and experience

Scott is a senior business leader with a mix of deep retail and consumer expertise. He has considerable knowledge gained in both the retail and insurance sectors, together with a strong understanding of operating within highly regulated businesses. Scott worked in retail for almost 30 years both in the UK and internationally and has over 10 years' experience as a non-executive director within the financial services industry.

External appointments

Chairman of AXA UK plc and senior independent director of Santander UK plc.

2018 Board changes

Jeff Bell stepped down from the Board on 31 October 2018

Charles Berry joined the Board on 31 October 2018

Chris O'Shea joined the Board on 1 November 2018

Mark Hanafin stepped down from the Board on 30 November 2018

Richard Hookway joined the Board on 1 December 2018

2019 Board changes

Pam Kaur joined the Board on 1 February 2019

Rick Haythornthwaite stepped down from the Board on 20 February 2019

Mark Hodges will step down from the Board on 28 February 2019

Sarwjit Sambhi will join the Board on 1 March 2019

Margherita Della Valle will step down from the Board on 12 May 2019

Kevin O'Byrne will join the Board on 13 May 2019

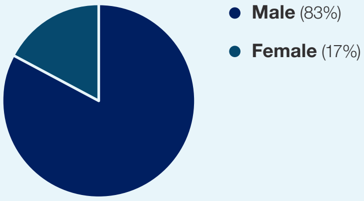
Read more about the Board Changes in the Nominations Committee Report on
Pages 88 to 89

The Board has agreed that each Director shall stand for reappointment at each Annual General Meeting (AGM). Copies of the Executive Directors' service contracts and the Non-Executive Directors' letters of appointment are available for inspection by shareholders at each AGM and during normal business hours at the Company's registered office.

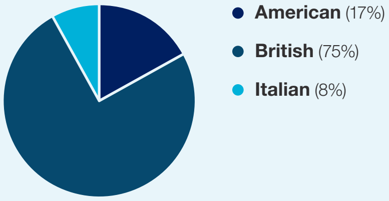
Board Composition

Board diversity

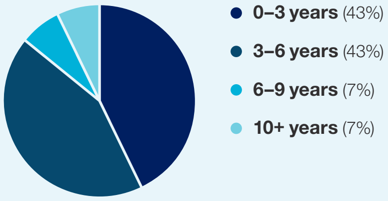
by gender



by nationality



by tenure



* Data as at 31 December 2018

Skills and experience

	Executive Directors	Non-Executive Directors
Energy Sector	■■■■	■■■
Geopolitics	■■	■■
Emerging Markets	■■	■■
Financial Services	■	■■■■
Technology	■■■	■
Engineering / Safety		■■
Consumer services	■■	■■■■■
Government / Regulatory		■■■
Finance / M&A	■■■	■■■■

*data as at 31 December 2018

Board attendance

	Board[1]	Audit	Remuneration	Nominations	SHESEC	Joint Audit/ SHESEC	Disclosure
Number of meetings	11	4	8	11	5		
Rick Haythornthwaite	11/11	–	–	10/10[3]	–	–	–
Charles Berry	2/2	–	–	2/2	–	–	–
Iain Conn	11/11	–	–	–	–	–	10/10
Jeff Bell[2]	8/9	–	–	–	–	–	7/9
Margherita Della Valle[2]	7/11	4/4	5/6	6/11	3/5	2/2	–
Joan Gillman[2]	11/11	–	–	10/11	5/5	2/2	–
Mark Hanafin	10/10	–	–	–	–	–	–
Stephen Hester	11/11	4/4	2/2	11/11	–	–	–
Mark Hodges[2]	9/11	–	–	–	–	–	–
Richard Hookway	1/1	–	–	–	–	–	–
Chris O'Shea	2/2	–	–	–	–	–	1/1
Carlos Pascual[2]	10/11	–	7/8	9/11	5/5	2/2	–
Steve Pusey[2]	10/11	4/4	–	11/11	5/5	2/2	–
Scott Wheway[2]	9/11	–	8/8	11/11	5/5	2/2	–
Grant Dawson	–	–	–	–	–	–	10/10

(1) During the year there were 11 Board meetings, of which nine were scheduled meetings and two were called at short notice.
(2) All absences were due to Directors' having unavoidable diary clashes.
(3) Rick Haythornthwaite did not attend the Nominations Committee meeting that discussed his successor.

Senior Executives

Full biographies can be found at
centrica.com/seniorexecutives

Charles Cameron

Charles Cameron
Director of Technology & Engineering and Centrica Innovations

Charles was appointed Director of Technology & Engineering on 1 January 2016 and Chairman of Centrica Innovations on 1 May 2017.

Skills and experience

Charles has extensive technology and engineering experience and has held corporate roles in marketing, planning and M&A. Before joining Centrica, he was head of technology, downstream at BP plc and was a member of the downstream executive team.

Prior to his time at BP, Charles spent 23 years with the French Institute of Petroleum and their catalyst, technology licensing and engineering service business, Axens.

Grant Dawson

Grant Dawson
Group General Counsel & Company Secretary

DC

Grant was appointed Group General Counsel & Company Secretary in February 1997 and will retire from the Company at the end of March 2019.

Skills and experience

Grant joined British Gas plc in October 1996 and has been Group General Counsel & Company Secretary of Centrica plc since the demerger of British Gas plc on 17 February 1997. He was called to the Bar in 1982 and has spent most of his career in industry, joining the legal department of Racal Electronics plc in 1984, then STC plc as legal adviser in 1986 until it was taken over in 1991 by Northern Telecom Limited. Between 1991 and 1996, he was the associate general counsel for Nortel in Europe, Africa and the Middle East.

Jill Shedden

Jill Shedden, MBE
Group Human Resources Director

Jill was appointed Group Director, Human Resources on 1 July 2011.

Skills and experience

Jill joined British Gas plc as a graduate in 1988 and has since held a wide range of senior HR roles across the Group. Prior to her appointment as Group HR Director Jill was HR Director in British Gas Business, British Gas Energy and Centrica Energy. In 2017 Jill was awarded an MBE for 'services to women and equality' in recognition of her work with, amongst other organisations, the Women's Business Council.

External appointments

Non-executive director Thames Water Utilities Limited.

Mike Young

Mike Young
Group Chief Information Officer

Mike was appointed Group Chief Information Officer on 1 November 2016.

Skills and experience

Mike brings a wide range of experience in managing global information systems functions in partnership with customer-facing units and using big data and digital technologies to drive revenue growth and improve the customer experience. Before joining Centrica he was group chief information officer with the media and digital marketing company Dentsu Aegis Network.

2019 Senior Executive changes

Grant Dawson will retire from the Company on 31 March 2019

Justine Campbell will become Group General Counsel & Company Secretary and member of the Disclosure Committee on 1 April 2019

Governance Framework

The Board

The Board is collectively responsible for the long-term success of the Group. With due regard to the views of shareholders and other stakeholders, it provides leadership and direction including establishing the Group's culture, values and ethics, setting strategy and overseeing its implementation, ensuring only acceptable risks are taken and being responsible for corporate governance and the overall financial performance of the Group.

Matters reserved exclusively for the Board

There are certain key responsibilities that the Board does not delegate and which are reserved for its consideration. The full Schedule of Matters Reserved is available on our website, but key features include:

- the development of strategy and major policies;
- approving the annual operating plan, Financial Statements and major acquisitions and disposals;
- approving interim dividend payments and recommending final dividend payments; and
- the appointment and removal of Directors and the Company Secretary.

Read more about our Stakeholder Engagement on
Pages 52 to 55

Read more on how we manage our Risks on
Pages 41 to 51

Read more on Our Strategy and Our Business Model on
Pages 14 to 17

Board composition and roles

Chairman

Responsible for the leadership and management of the Board. In doing so, he is responsible for promoting high ethical standards, ensuring the effective contribution of all Directors and, with support from the Group General Counsel & Company Secretary, best practice in corporate governance.

Group Chief Executive

Responsible for the executive leadership and day-to-day management of the Company, to ensure the delivery of the strategy agreed by the Board.

Group Chief Financial Officer

Responsible for providing strategic financial leadership of the Company and day-to-day management of the finance function.

Independent Non-Executive Directors

Responsible for contributing sound judgement and objectivity to the Board's deliberations and overall decision-making process, providing constructive challenge, and monitoring the Executive Directors' delivery of the strategy within the Board's risk and governance structure.

Senior Independent Director

Acts as a sounding board for the Chairman and serves as a trusted intermediary for the other Directors, as well as shareholders as required.

Group Executive Directors

Responsible for executive leadership and day-to-day management of relevant business units in support of the Group Chief Executive and the delivery of the strategy agreed by the Board.

Company Secretary

Adviser to the Chairman and the Board on matters of corporate governance, induction, training and the efficient management of Board and Committee meetings. Responsible for ensuring the effectiveness of Centrica's governance framework.

Committees

Audit Committee

For more information
Pages 80 to 84

Disclosure Committee

For more information
Page 87

Nominations Committee

For more information
Pages 88 to 89

Remuneration Committee

For more information
Pages 90 to 109

Safety, Health, Environment, Security and Ethics Committee

For more information
Pages 85 to 86

The role and responsibilities of each Committee are set out in its Terms of Reference found on the Company's website at
centrica.com/boardcommittees

Directors' and Corporate Governance Report

Board meetings

The Board held 11 meetings in 2018, seven of which were in person and four by scheduled telephone conferences. Each year the Board seeks to combine one or two meetings with visits to the Group's operations and in 2018 visited North America Business in March and Bord Gáis Energy, Dublin, in September. Details of these visits can be found on page 76.

During the year, the Non-Executive Directors, including the Chairman, met frequently without management present.

Board activity

During the year, the Board considers a comprehensive programme of regular matters covering operational and financial performance reporting, strategic reviews and updates and various governance reports and approvals. In addition, each Board meeting features deep dives into a specific operation or topic.

In 2018, these discussions included:

- Strategic reviews for Connected Home; DE&P; EM&T; UKB; delivery services growth in UK and NA;
- Spirit Energy – Nova Field Development;
- Group Brand Architecture and Reputation;
- IT, Technology and Innovation;
- the Competitive Landscape;
- Exploration & Production portfolio and pipeline;
- North America Site Visit – review North America progress against risks / issues identified in Internal Audit;
- Board Evaluation;
- Process Safety;
- People, Culture and Capability;
- Governance, Risk & Regulation; and
- Financial and Operational Performance.

Our governance in action

Centrica's governance framework is designed to support timely, effective decision-making throughout the organisation.

The effectiveness and rigour of this system of governance is evident in the process the Board followed before approving Spirit Energy's acquisition of 50% of Hurricane Energy's Greater Warwick Area, part of the Rona Ridge fractured basin in the West of Shetland:

- strong and aligned leadership from the Chairman and the Group Chief Executive in convening meetings of the Board at short notice and facilitating open, yet focused, debate and appropriate challenge;
- flexibility and speed of decision-making with two additional and unscheduled Board meetings held on successive days and the transaction signed and completed within a month. This enabled Spirit Energy to acquire a rig, for the well programme, for site surveys to be undertaken and for long lead-time items to be procured in time for drilling to commence in the first quarter of 2019;
- a clear understanding of the strategic rationale for the proposed acquisition and of the risks associated with the project and an evaluation of alternative investment opportunities;
- rigorous challenge and independent oversight from the Non-Executive Directors who brought diverse experiences and an external perspective to the discussions and who constructively challenged the strategic rationale for the proposed investment; and
- timely, accurate and well-considered information and support from the Executive and the Group General Counsel & Company Secretary.

This transaction is expected to significantly strengthen Spirit Energy and will enable it to participate in the early phases of resource maturation in one of the last known world-class oil development opportunities in the UK.

Read more about Drilling for the future West of Shetland on
Page 34

Directors' independence and conflicts

All of our Non-Executive Directors are considered to be independent against the criteria in the UK Corporate Governance Code 2016 (the 2016 Code) and free from any business interest which could materially interfere with the exercise of their judgement. In addition, the Board is satisfied that each Non-Executive Director is able to dedicate the necessary amount of time to the Company's affairs.

In accordance with the Companies Act 2006 (the Act) and the Company's Articles of Association, directors are required to report actual or potential conflicts of interest to the Board for consideration and, if appropriate, authorisation. If such conflicts exist, directors recuse themselves from consideration of the relevant subject matter. The Company maintains a schedule of authorised conflicts of interest which is regularly reviewed by the Board.

Directors' induction

All new directors appointed to the Board receive a comprehensive induction programme which is led by the Chairman and supported by the Group Chief Executive Officer. This programme is tailored to meet each individual's needs and is structured and designed to ensure that new directors are equipped with the requisite information and knowledge about the Group and its markets to contribute meaningfully and effectively to Board discussions as soon as possible. The programme includes briefings from members of the Executive, and management teams covering key areas of the business, an overview of the Group's Risk Management processes, the Internal Audit function and the corporate governance framework within Centrica. The induction programme also includes a series of site visits for new directors to familiarise themselves with the Group's businesses.
On completion of the induction programme, all new directors should have sufficient knowledge and understanding of the business to effectively contribute to strategic discussions and the oversight of the Group.

Training and development for directors

Ongoing training is provided for all directors, including formal and informal briefings, meetings with management and visits to the Group's operations. As part of this approach, two formal insight and training sessions are held each year. In July 2018, a session was held which focused on the Group's pension schemes and, specifically, the financial position of the UK defined benefit pension scheme and the investment, funding and security strategy triennial review. This was followed in November by a presentation on commodity and non-commodity risk in the energy portfolio.

In addition, the directors have full access to the advice and services of the Group General Counsel & Company Secretary, who is responsible for advising the Board, through the Chairman, on corporate governance matters. Directors are also able to seek independent professional advice at the Company's expense in respect of their duties.

Non-Executive Director induction

On joining the Board as Non-Executive Director and Chairman designate, Charles Berry was provided with a comprehensive induction programme which was designed to ensure that he gained a full understanding of the Group, including the business, culture and values, strategy, markets, governance and financial position. This programme is set out below.

Centrica's business

- One-to-one meetings were held with Executive Directors, other Non-Executive Directors and members of the Executive Committee to discuss Centrica's business, strategy and operations.
- Site visits were undertaken to a number of Centrica's principal businesses including UK Home (Staines), UK Business (Leicester), Connected Home (London), Energy Marketing & Trading (London), North America Business (New Jersey) and Distributed Energy & Power (New Jersey). Further visits to Group operations are scheduled.
- Meetings were held with Centrica's key external advisers including its brokers, Goldman Sachs and UBS, and its external auditors, Deloitte; and
- Charles also met with other stakeholders including customers and major shareholders.

Board and governance structure

- Meetings were held with the Chairman of the Board and the Chairs of the Board's principal Committees;
- Charles was briefed on the findings and recommendations of the latest Board and Committee effectiveness review.

Centrica's Group functions

Meetings were held with various senior managers of the Group to discuss:

- Group strategy;
- Centrica's people strategy (its culture, organisation and engagement) and remuneration architecture;
- Marketing and Brand Architecture;
- Legal and Regulatory issues facing the Group;
- Health and Safety;
- Investor Relations;
- Internal Audit and Risks; and
- transformation and efficiency programmes.

> **"It is essential for a Non-Executive Director to gain a thorough knowledge and understanding of the business to make a valuable contribution. The induction programme has provided me with an excellent start in gaining the knowledge, information and insight on Centrica that I need to make an effective contribution as Chairman and in the boardroom."**

Charles Berry
Non-Executive Director and Chairman designate
Appointed 31 October 2018

Board diversity

Centrica recognises the benefits of diversity and inclusion in all its forms, at Board level and throughout the Group.

As at 31 December 2018, 17% of the Board were women and comprised directors from the UK, US and Italy with a wide range of backgrounds and expertise. Following the appointment of Pam Kaur on 1 February 2019 and as at the date of this Report, the percentage of women on the Board has increased to 25%.

Centrica supports the recommendations of the Hampton-Alexander and Parker Reviews in relation to gender and ethnic diversity and is continuing to develop the skills, experience and knowledge of a diverse talent pipeline. Our Nominations Committee is dedicated to ensuring and promoting a diverse blend of skills, backgrounds and nationalities on the Board and further details on the Committee's activities in this regard are set out in the Nominations Committee report on pages 88 to 89.

Read more about our employee diversity on
Page 62

Board Planning Conference

Each year Centrica's Board meets for two days to review, discuss, debate and approve the Group's strategy. This is both an opportunity for the Board to reflect on progress made to date and helps shape Centrica's plans for the coming years. It also provides an opportunity for the Board to discuss and challenge proposed and alternative investment choices, growth options and portfolio moves, as well as providing a forum for the Board to assess whether or not the Group has achieved the right balance of challenge and conservatism in its strategic ambitions.

Ahead of the Board Planning Conference this year the Board was provided with a comprehensive set of supporting information. This included information on:

- the key external trends impacting Centrica and our markets;
- the possible impacts Brexit may have on the Group;
- the proposed strategic plans for our Consumer, Business and Asset divisions;
- how technology is impacting, and will impact, our markets and how we are responding; and
- our progress in deploying digital technologies to better serve our customers and drive efficiency.

During the Board Planning Conference, the Group Executive and senior business leaders presented their strategic plans for each business area. These plans were reviewed and challenged by the Non-Executive Directors who contributed insights and perspectives drawing on their diverse backgrounds and business experiences. Specific time was also set aside in the agenda to provide for a discussion of:

- the strategic choices and issues for each business area;
- the resulting financial outlook expected for the Group; and
- the capabilities (people, process and technologies) required to deliver the next phase of Centrica's strategy.

The conference considers ideas for the potential opportunities, risks and actions over the next three years. In particular, the Board discussed plans to deliver growth in key business units such as Connected Home, Distributed Energy & Power and our in-home services businesses. They also evaluated proposals for improving how we deliver for customers in our various energy supply and asset based businesses. Valuable insights were gained from the conference and these were subsequently used to update business plans and strategies.

Site visits

While the bulk of the Board's work is conducted around the boardroom table, Directors recognise the importance and benefits gained by visiting the Group's operations. During 2018, the Board visits included Centrica's operations in the US (New York) in March and the Republic of Ireland (Dublin) in September.

In March 2018, the Board visited Centrica's North America Business headquarters in New Jersey. The visit comprised a scheduled Board meeting and discussions with the North America Business leadership team on strategy and performance. It gave the Board an opportunity to understand the root causes of the performance issues the business faced in 2017 and to satisfy themselves that the enhancements to the control environment were appropriate.

In September 2018, the Board visited Bord Gáis in Dublin. The visit comprised a scheduled Board meeting and discussions with the Board Gáis leadership team on strategy and performance. In addition, the visit provided the Board with an opportunity to meet people involved with Bord Gáis's operation, ranging from a senior external stakeholder to members of staff with significant subject matter expertise. The Board discussed the strong performance of the business since its acquisition in 2014, and the way that Bord Gáis is leveraging its position within Centrica as well as contributing to the overall Group. Particular topics that were showcased were Bord Gáis's customer-centric operational approach and its sector-leading customer loyalty scheme.

Board Evaluation

Evaluation of the Board and its Committees

The Board recognises that it continually needs to monitor and improve its performance. The performance and effectiveness of the Board and its Committees is subject to formal review through the annual evaluation process. In accordance with the 2016 Code, Centrica's annual evaluation of Board effectiveness is facilitated by an independent third-party at least once every three years.

As we reported last year, for 2017/18 an independent third party evaluation was conducted by Independent Audit (IA). The process that was followed for this review and the conclusions of this evaluation, are set out below.

Evaluation Process

Stage 1: Each Director and the Group General Counsel & Company Secretary completed a detailed online questionnaire produced by IA

Stage 2: IA conducted a review of Board and Committee papers

Stage 3: Interviews were held with each member of the Board and certain members of the Executive Committee including the Group General Counsel & Company Secretary

Stage 4: IA attended and observed meetings of the Board and Committees in February 2018

Stage 5: The results of Stages 1 to 4 were collated and analysed by IA and a report was prepared and discussed with the Chairman

Stage 6: The results were presented and discussed by the Board at its meeting in March 2018. An action plan, listing areas of focus from the 2017/18 evaluation, was agreed

2017/18 Performance evaluation outcomes

The 2017/18 performance review highlighted the strength in the composition and the diverse experience and expertise of the Board, which has undergone significant change in recent years to enable it to support Centrica's strategic direction. In discussing the findings of the review, the Board considered its performance generally and concluded that the Board and its Committees continued to discharge their duties and responsibilities effectively.

A number of opportunities for improvement in the way the Board operates were also identified and these are set out under the action plan agreed for 2018/19.

Action plan agreed for 2018/19

Review the Board meeting programme to ensure that the Board's attention is focused on the most material issues facing the Group

Responsibility: Chairman and Group General Counsel & Company Secretary

Review and enhance Board papers and presentations to promote high quality input, debate, support and challenge at Board meetings

Responsibility: Chairman and Group General Counsel & Company Secretary

Review the use of operational Key Performance Indicators in Board reports to enhance the level and clarity of insight provided to the Board

Responsibility: Group Chief Financial Officer

Consider whether further discussion on business performance should be incorporated into future Board agendas

Responsibility: Group Chief Financial Officer

Chairman's performance

The Senior Independent Director, Stephen Hester, conducted the evaluation of the Chairman's performance through a series of individual discussions with Directors and Senior Executives. Stephen then discussed the feedback and areas of development with the Chairman.

Individual performance

The Chairman held performance meetings with each Director to discuss their individual contribution and performance over the year and their training and development needs. Following these meetings, the Chairman confirmed that each Director continued to make an effective contribution to the Board and the Company.

Workforce engagement

The Board recognises that the success of the long term strategy to transition the Company to customer-facing businesses depends on a fully engaged workforce and culture. As a critical step, the Board expanded its commitment to the employees by appointing a Non-Executive Director, Joan Gillman, to the role of Employee Champion. Joan brings to the role wide-ranging experience in leadership and operations in the media and communications sector and fully understands and supports the importance of engagement, teamwork and diversity.

In 2018, Joan undertook a review of key employee matters and during the year participated in Board visits and employee sessions in Dublin, England and the US, two dozen 1:1s, Yam Jam (a collaborative online employee communication tool) and listening sessions with employees. The following summary of key topics were discussed at length:

- how to define the Employee Champion role;
- what defines success;
- how employees can best share their ideas or feedback; and
- How the Company can maximise the voice of the employee to improve culture, communications, customer service.

The conversations have been very productive and further demonstrated the commitment of the employees to the success of their teams and the role they play in the success of the Company. Their voice is critical to our success. The high level of participation in the employee engagement survey in 2018 also demonstrates how eager the employees are to see Centrica succeed in serving our customers, operating in our communities and supporting our employees. In addition to participation, many of the measures in the survey show that areas of focus in 2018, including safety, values and communications, show improvement. The same survey has provided us the feedback to focus on areas for further improvement in the coming year. Last but not least, we are in the very early stages of defining the Employee Champion role. Employee engagement is improving however, this is a long term commitment to bring about positive results for the Board and employees. The success of the role will require an ongoing commitment and engagement from the employees, the executives and the Board to work constructively and collaboratively to shape a role that is both effective in the short-term and sustainable for the long-term.

> **"It's an honour to be the Employee Champion for the Board. 2018 has been a year of defining this important role and setting out our ambitions. In doing so, I have thoroughly enjoyed spending time with employees across the Group. I am grateful for the insights in shaping the role of Employee Champion and the agenda and dialogue in the Board room."**
>
> **Joan Gillman**
> Non-Executive Director

Shareholder engagement

The Board is committed to maintaining open channels of communication with all of the Company's stakeholders. An important part of this is providing a clear explanation of the Company's strategy and objectives, and ensuring feedback is acknowledged, considered and, where appropriate, acted upon.

Meetings, roadshows and conferences

We typically offer meetings with senior management to our major institutional shareholders twice a year, following the Company's Preliminary and Interim Results. These meetings are attended by the Group Chief Executive Officer and Group Chief Financial Officer, and also sometimes divisional Chief Executives, and are intended to ensure shareholders have the opportunity to hear directly from management on the Company's performance and progress. In addition, senior management are also available to meet on an ad hoc basis with major shareholders if requested, while management and/or Investor Relations attend a number of investor conferences throughout the year, giving shareholders further opportunity to meet and get updates directly from Company representatives.

In April, our largest investors and leading proxy advisers were invited to attend the Chairman's Governance meeting. This provided insight into the key focus areas and considerations of the Board and its committees and allowed a better understanding of the governance framework operating across the business. The Chairman, Senior Independent Director, Committee Chairmen, Group Chief Executive and Group Chief Financial Officer attended this meeting.

Engagement themes with our institutional shareholders

During the year, engagement themes included:

- The external political environment;
- North American accounting issues;
- Climate change;
- The Company's share price and shareholder return;
- Customer service and customer retention; and
- Cyber security.

> **"By putting decentralisation, digitisation and decarbonisation at the core of its operations, Centrica is making a real difference in tackling climate change and empowering businesses to be more efficient and sustainable."**
>
> **Carlos Pascual**
> Non-Executive Director

Key investor relations activities during the year included

Q1 (Jan–Mar)	Q2 (Apr–June)	Q3 (Jul–Sep)	Q4 (Oct–Dec)
Preliminary results	Annual Report published	Half-yearly results	Trading update
Post-results investor meetings	Chairman’s Governance Meeting	Post-results investor meetings	
	AGM		
	Trading update		
Meetings between the CEO and CFO and the Company’s major shareholders			
Chairman and Senior Independent Director meet with major institutional shareholders			
Press releases available on Centrica.com			

Annual General Meeting (AGM)

Our AGM is attended by our Board and Executive Committee members and is open to all our shareholders to attend. A summary presentation of financial results is given before the Chairman deals with the formal business of the meeting. Shareholders present during the meeting can question the Board. Representatives from Investor Relations and customer services are available before and after the meeting to answer any additional questions that shareholders may have. Our 2018 AGM was very well supported, the level of support for the resolutions carried ranged from 89.35% to 99.92%.

The 2019 AGM will be held at the QEII Centre, Broad Sanctuary, Westminster, London SW1P 3EE on Monday 13 May 2019. Further information is available in the Notice of AGM (see centrica.com/agm19)

Reuniting our shareholders with unclaimed dividends

Since 2009, together with our Registrar, Equiniti, and its partner ProSearch, Centrica have run an asset reunification programme. This seeks to reunite shareholders with uncashed dividends and share entitlements. To date, we have successfully reunited £25.2 million of share and dividend assets with shareowners. The Company proposes to adopt new Articles at the 2019 AGM which will provide the Company with greater control and flexibility in relation to its treatment of untraced shareholders, the procedure for the payment of dividends and the holding of combined physical and electronic general meetings.

Share Dealing Programme

We continue to run our popular annual share-dealing programme for shareholders with shareholdings of up to 5,000 shares, giving them the option to sell or increase their shareholdings at a fixed fee. Shareholders who sold their shares had a further option to donate the proceeds to UK Charity ShareGift, resulting in over £325,000 being donated since 2010.

Centrica.com

Our website, centrica.com, contains up-to-date information for shareholders and other interested parties including annual reports, shareholder circulars, share price information, news releases, presentations to the investment community and information on shareholder services.

Read more about Shareholder Information on
Page 234

Audit Committee

Margherita Della Valle
Committee Chairman

Dear Shareholder

On behalf of the Board, I am pleased to present the Audit Committee's report for the year ended 31 December 2018. I hope that you find the report which follows an interesting explanation of our work during the year.

This report aims to outline how we discharged our duty to support the Board in fulfilling its responsibilities in reviewing the effectiveness of the Company's financial reporting, internal controls and risk management.

The Committee met six times in 2018, twice jointly with the Safety, Health, Environment, Security and Ethics Committee (SHESEC). I have appreciated the contribution from the members of the Committee, management team and auditors in facilitating an open discussion and in taking the important work of the Committee forward.

The Committee has developed its agenda to enable, over the course of a year, active oversight of all key areas of responsibility and to facilitate deeper dives into topics of particular importance or pertinence. In 2018 this agenda included regular reports on Risk, Control and Assurance, Internal and External Audit, together with periodic items reviewed at fixed points annually such as the interim and year-end financial results and internal and external audit plans. In addition, there were deep dives during the year as set out in the table opposite.

These deep dive discussions produced good debate and a challenging dialogue between management and the Committee members, supporting continued progress in those key areas. Following the reassessment of the historic recognition of unbilled power revenues, identified in late 2017 in North America Business, the Committee has had significant focus on the control environment in that business unit, where a number of enhancements to internal controls, summarised in an 18-point plan, have been implemented with continued oversight from the Committee.

Furthermore, we have had continued dialogue and debate with management in relation to their Finance Transformation programme, which aims to deliver top quartile levels of both service and cost performance as well as strategic agility, enhanced financial control and insight benefits. The Committee has been supportive of improvement plans and is focused on the need to maintain strong controls. The aims of this programme were endorsed by the Committee at the beginning of 2018 and we have closely monitored progress over the course of the year. The involvement of the Committee has been significant and the programme forms part of the regular agenda.

The Committee also met twice with SHESEC to jointly consider the Group's System of Risk Management and Internal Control: in the first quarter to assess the system's effectiveness and in the fourth quarter to look prospectively at plans for 2019. More detail on the key issues considered by the Committee in 2018 are given below.

In 2019, key areas of focus for the Committee will be the continued oversight of the maintenance and development of our control environment, continued review of IT controls and IT systems evolution and the integration of recently acquired businesses. The Committee plans to conduct reviews of the control environment of Centrica Business, Centrica Consumer and Spirit Energy.

I believe that the Committee has performed effectively in 2018. Compliance with the 2016 Code, including the risk management and the viability statement requirements, is set out on pages 41 to 51.

Areas of focus

North America Business controls and accounting processes

- Challenged the use of manual processes and requested system improvements; and
- discussed and supported improvement plans and monitored subsequent actions.

Finance Transformation Programme and Controls Maturity

- Regularly reviewed progress and continues to monitor plans to deliver enhanced financial control and insight through a standardised operating model; and
- collaborated with management to oversee improvements in management information and remediation of control weaknesses.

Energy Marketing & Trading Financial Risk

- Received an update on the controls in place, current risk profile and delegations of authority in the business; and
- following discussion, agreed that an audit on the integration of Neas Energy, including the results of assurance activities, will be completed in 2019.

User Account Management

- Update received on improvement initiatives and investment plans; and
- ongoing monitoring of improvement milestones and key deliverables.

Post-Acquisition Integration and Controls Framework

- Reviewed the Group's approach to post-merger integration and the accompanying control frameworks and considered lessons learned from previous experiences; and
- endorsed the approach being taken to integrate newly acquired businesses.

Exceptional Items Policy

- Following a Committee challenge and discussion with management, the policy was subsequently reviewed and updated with a revised materiality threshold.

Membership and meetings

The Committee is comprised solely of independent Non-Executive Directors, Margherita Della Valle, Stephen Hester and Steve Pusey.

Margherita Della Valle, as Group Chief Financial Officer of Vodafone Group Plc, is considered by the Board to have recent and relevant financial experience as required by the 2016 Code. The Board is satisfied that the Committee has the resources and expertise to fulfil its responsibilities.

Meetings of the Committee are attended by the Chairman of the Board, the Group Chief Executive, the Group Chief Financial Officer, the Group General Counsel & Company Secretary, the Group Head of Corporate Finance and the Head of Internal Audit, Risk & Control, none of whom do so as a right. Other Senior Executives will attend as required to provide information on matters being discussed which fall within their area of responsibility. The external auditors, Deloitte LLP (Deloitte), also attended each meeting. The Committee meets individually with the external auditors, the Group Chief Financial Officer and the Head of Internal Audit, Risk & Control at each meeting without other Executive Directors present.

Committee activity

Role of the Committee

The Committee's Terms of Reference are available on centrica.com. The core responsibilities of the Committee are to:

- support the Board in fulfilling its responsibilities to maintain effective governance and oversight of the Company's financial reporting, internal controls and risk management;
- provide advice to the Board on whether the Annual Report and Accounts, when taken as a whole, is fair, balanced and understandable and provides all the necessary information for shareholders to assess the Company's performance, business model and strategy;
- monitor and review the operation and effectiveness of the Group's Internal Audit function, including its independence, strategic focus, activities, plans and resources;
- facilitate the appointment and, if required, the removal of the Head of Internal Audit, Risk & Control;
- manage the relationship with the Group's external auditors on behalf of the Board including the policy on the award of non-audit services;
- conduct a tender for the external audit contract at least every 10 years and make appointment recommendations to the Board; and
- consider and review legal and regulatory compliance issues, specifically in relation to financial reporting and controls, and together with SHESEC, maintain oversight of the arrangements in place for the management of statutory and regulatory compliance in areas such as financial crime.

Areas of focus and training

An annual schedule of training is designed to provide Directors with practical training and insight into specific areas of interest. In 2018, these sessions covered the Centrica Pension Schemes in July and, in November, a briefing on the expected impact of the introduction of IFRS 16 and a wider Board session on commodity and non-commodity risk in the UK energy supply market.

Effectiveness of the Committee

The Board and its Committees are subject to a formal annual evaluation process and, in accordance with the requirements of the 2016 UK Code, every three years the Board appoints an independent third party to perform this review. The last external review was conducted by Independent Audit (IA) for 2017/18 and included completion of a detailed questionnaire, IA review of papers, interviews with Directors and IA attendance at Board and Committee meetings. The Audit Committee's effectiveness was considered as part of this evaluation process and the review concluded that the Audit Committee was fully effective in discharging its duties and continues to operate well. Further details on the IA performance evaluation are set out on page 77.

Risk management and internal controls

Internal Audit

The Committee is responsible for monitoring and reviewing the operation and effectiveness of the Group's Internal Audit function, including its independence, strategic focus, activities, plans and resources. The appointment and removal of the Head of Internal Audit, Risk & Control is also a matter for the Committee.

The Committee approved the Group's annual Internal Audit plan. The plan is developed in response to those risks identified through the Enterprise Risk Management processes, using the independent insight and experience of the Internal Audit team and their advisors. It incorporates assurance over all aspects of our Group Risk Universe, including the Principal Risks in the categories of Strategic, Financial, Operational and Legal & Regulatory risk. As part of its consideration of the plan, the Committee reviewed staffing levels and qualifications to ensure these were appropriate and adequate for the delivery of the plan. The triannual External Quality Evaluation of Internal Audit will be conducted in 2019, following a positive outcome in 2016. Further information on the Principal Risks is available on pages 41 to 51.

During the year, the Committee received regular reports summarising the findings from the Group's Internal Audit function's work and action plans to resolve any highlighted areas. The Committee monitored the progress of the most significant action plans to ensure these were completed satisfactorily.

Review of the System of Risk Management and Internal Controls

Each year, an extensive process of self-certification operates throughout the Group whereby the effectiveness of the System of Risk Management and Internal Controls, including compliance with Our Code, and policies are assessed. In addition, we have a comprehensive programme to assess the Group's Entity Level Controls. The results of the annual process, together with the conclusions of the internal reviews by Internal Audit, enable the Audit Committee and SHESEC, on behalf of the Board, to form and report their view on effectiveness.

During 2018 there has been intensive activity to improve the financial and commercial controls, particularly in North America Business, but also across the Group. These improvements have been discussed within the Audit Committee and SHESEC throughout the year to provide support and guidance to our management teams. We conclude that the System of Risk Management and Internal Control is effective, whilst recognising the need for ongoing and continuous improvement. We have confidence in the work of Internal Audit and the functional assurance teams, alongside our management teams, to identify issues that arise and remediate where necessary control gaps in line with our risk appetite.

Fair, balanced and understandable

As part of the Committee's determination, on behalf of the Board, of whether the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy, the Committee considers the processes and controls involved in its production and the financial reporting responsibilities of the Directors under section 172 of the Companies Act 2006 to promote the success of the Company for the benefit of its members as a whole. There is a robust governance framework around the production of the Annual Report to ensure it is critically reviewed and signed off by the key teams in the relevant businesses and functions and the Committee was satisfied that the process was effective and confirmed to the Board that the Annual Report, when taken as a whole, was fair, balanced and understandable.

External auditors

The Committee manages the relationship with the Group's external auditors on behalf of the Board. The Committee considers annually the scope, fee, audit plan, performance and independence of the external auditors as well as whether a formal tender process is required. The Committee last led a formal audit tender process in 2016, the details of which can be found in the 2016 Annual Report & Accounts.

The Board considers it of prime importance that the external auditors remain independent and objective and as a safeguard against this being compromised, the Committee implemented and monitors a policy on the independence of external auditors. This policy details the process for the appointment of the external auditors, the tendering policy, the provision of non-audit services, the setting of audit fees and the rotation of audit partner and staff. There are no contractual or similar obligations restricting the Group's choice of external auditors.

Deloitte was appointed as the Company's auditor at the beginning of 2017 and will this year perform their second full audit. The re-appointment of Deloitte as auditors was approved by shareholders at the Annual General Meeting in May 2018.

The Company has complied with the Statutory Audit Services Order 2014 for the financial year under review.

Effectiveness and independence of the external auditors

To assess the effectiveness and independence of the external auditors, the Committee carried out an assessment of Deloitte, primarily looking at the key areas of audit quality, capability and competence, past performance and independence. This assessment included a review of the report issued by the Audit Quality Review ('AQR') team regarding Deloitte and separately an internal questionnaire was completed by the Chairman of the Board, Committee members and senior members of management on their views of Deloitte's performance. The questionnaire covered a review of the audit partner and team, the audit scope and approach, audit plan execution, auditor independence and objectivity and robustness of the challenge of management. The feedback received was reviewed by management and reported to the Committee and the Board. The Committee also received an update from Deloitte on the progress of the FRC AQR review to their 2017 audit. The final AQR report has been received on February 20th, 2019 and the Audit Committee will now review the detailed findings, which were raised in two areas of the audit, and understand how Deloitte intend to respond to those findings in future audits. The Committee was satisfied with the external auditor's commitment to audit quality, the robust and professional working relationship with management and demonstration of strong technical knowledge and professional scepticism.

In addition, to ensure the independence of the external auditors and in accordance with International Standards on Auditing (UK & Ireland) 260 and Ethical Standard 2016 issued by the Accounting Practices Board and as a matter of best practice, Deloitte has confirmed its independence as auditors of the Company. Together with Deloitte's confirmation and report on its approach to audit quality and transparency, the Committee concluded that Deloitte demonstrated appropriate qualifications and expertise and remained independent of the Group and that the external audit process was effective.

Non-audit fees

To preserve the independence of the external auditor, the Committee is responsible for the policy on the award of non-audit services to the external auditors. A copy of this policy is available on our website. The current cap on non-audit work is £2.75 million, which is assessed annually for appropriateness against external guidance and regulation. This cap is significantly below the EU regulation of 70% non-audit fees compared to the three-year average of statutory audit fees. Non-audit fees for 2018 totalled £1.2 million – a ratio of 16%. All non-audit work within this policy is detailed and reviewed by the Committee at the next meeting. All significant non-audit work is tendered and where Deloitte was appointed, it was considered that its skills and experience not only made it the most appropriate supplier of the work but also there was clear evidence that another firm could not be used without adversely impacting the business.

Audit information

Each of the Directors who held office at the date of approval of the Annual Report and Accounts confirms that, so far as they are aware, there is no relevant audit information of which Deloitte is unaware and that they have taken all steps that they ought to have taken as Directors to make themselves aware of any relevant audit information and to establish that Deloitte is aware of that information.

Margherita Della Valle
Committee Chairman

Key judgements and financial reporting matters in 2018	Audit Committee reviews and conclusions
Determination of long-term commodity prices and their use valuing commodity trades and other long-life assets Long-term commodity price forecasts are derived using internal valuation techniques based on available external data. A significant number of judgements and assumptions are used in deriving future commodity curves. These forecasts are benchmarked against other third-party forecasts and, where appropriate, are adjusted to ensure they lie within the range of a reasonable market participant. The long-term commodity price forecasts are then used in determining the fair values of derivative financial instruments in North America and Europe. They are also a key input in the Group's impairment valuation.	The Committee reviewed and challenged the proposed commodity curves versus those of external third parties. The Committee observed that the long-term commodity price forecasts had reduced year on year and were now more closely aligned to these third-party views. The assumed length of UK Capacity Market suspension was also noted. Deloitte also provided detailed reporting and held discussions with the Committee on the impact of the commodity curves. Following review and challenge, the Committee were comfortable the curves and consequent valuations were appropriate. More detail on the assumptions used in determining fair values is provided in note S6 on pages 195 to 197. Sensitivities of the asset impairment tests to changes in price forecasts are provided in note 7 on pages 147 to 148.
Impairment and/or write-back, including related onerous contract provisions The Group makes judgements and estimates in considering whether the carrying amounts of its assets are recoverable. In particular, the main assets under consideration are goodwill, upstream gas and oil, power generation, connected home and distributed energy and power assets. These judgements include primarily the achievement of Board-approved business plans, long-term projected cash flows, generation and production levels (including reserve estimates) and other economic assumptions such as the growth and discount rates and long-term commodity and capacity market auction prices used in the valuation process. In the forecasts, where forward market prices are not available, prices are determined based on internal model inputs (as detailed above). At the year-end, pre-tax net impairment write-backs of Exploration and Production (E&P) assets of £90 million were booked, relating to UK and Norwegian assets (including the impact of decommissioning updates). Pre-tax impairment write-offs of £18 million in relation to the remaining gas turbine power stations and a £44 million onerous contract provision in relation to the Spalding tolling arrangement, were also recognised. No impairments were reflected for Nuclear investment or the Connected Home and Distributed Energy and Power businesses.	The Committee reviewed management reports detailing the carrying and recoverable value of the assets and the key judgements and estimates used. It noted that the Exploration and Production (E&P) asset net write-backs were primarily due to an increase in liquid prices alongside reductions to expected decommissioning costs, offset by a reduction in longer-term price forecasts. The Committee also observed that the power station impairments and onerous provision were linked to the assumption around the length of UK Capacity Market suspension and longer-term reductions in forecast future peak spark-spreads power prices. The Committee noted that no impairment was reflected for the Nuclear investment and that the recoverable amount was based on a value-in-use ('VIU') calculation rather than on a sales basis, and that the held for sale criteria had not been met. The Committee requested addition disclosure in the Annual Report to note that any future sales proceeds may be lower than this VIU. The Audit Committee challenged management and Deloitte on the key inputs to the impairment models including price and discount rates, and were comfortable with the conclusions reached (see also "Determination of long-term commodity prices" above). The Committee also reviewed the long-term projected cashflows used in valuing the Connected Home and Distributed Energy and Power businesses, benchmarked to external valuations and concurred with management's assessment that no impairment was required for these assets. Further detail on impairment and/or write-backs arising and the assumptions used in determining the recoverable amounts is provided in notes 7 and S2 on pages 146 to 148 and 175 to 186.
Classification and presentation of exceptional items and certain re-measurements (including 'own use' assessment) The Group reflects its underlying financial results in the business performance column of the Group Income Statement. To be able to provide this clearly and with consistent presentation, the effects of certain re-measurements of financial instruments and exceptional items are reported separately in a different column in the Group Income Statement. The classification of items as exceptional and specific trades as certain re-measurements (or conversely own use or proprietary trades) are subject to defined Group policies. These policies are reviewed annually by management. At the year-end, exceptional items included the impairments, write-backs and onerous provisions noted above, as well as restructuring costs related to phase 2 of the Group's cost efficiency programme of £170 million, debt repurchase costs associated with the Group's liability management programme of £139 million and a past service cost related to Guaranteed Minimum Pension of £43 million. Certain re-measurements totalled a £220 million charge.	During the year the Committee reviewed the Group's policy on exceptional items and challenged a number of definitions. As a result, an updated policy was approved which included greater clarity and specificity around eligibility of costs, particularly in the area of restructuring, as well as a revised materiality threshold. At the year-end, the Committee challenged the items classified as exceptional items, considering their size, nature and incidence and in the context of the Group policy. The Committee concluded that separate disclosure of these items as exceptional was appropriate in the Financial Statements. The Committee also noted that the Group policy on certain re-measurements (and the assessment of own use and/or proprietary trading) remained unchanged from previous periods and that this presentation allowed underlying performance to be reflected on a consistent and comparable basis. Further detail is provided in note 7 on pages 146 to 148.

Key judgements and financial reporting matters in 2018	Audit Committee reviews and conclusions
Energy supply revenue recognition The Group's revenue for energy supply activities includes an estimate of energy supplied to customers between the date of the last meter reading and the year-end meter reading. It is estimated through the billing systems, using historical consumption patterns, on a customer-by-customer basis, taking into account weather patterns, load forecasts and the differences between actual meter readings being returned and system estimates. An assessment is also made of any factors that are likely to materially affect the ultimate economic benefits which will flow to the Group, including bill cancellation and re-bill rates. Estimated revenue is restricted to the amount the group expects to be entitled to, in exchange for energy supplied. At the year-end, unbilled energy income for the supply businesses was £1,542 million (2017: £1,585 million).	The Committee has reviewed the level of unbilled revenue accrual and provisions made during the year and discussed with management and the external auditors. The Committee noted that the unbilled accrual had followed the same estimation process as in previous years and that Deloitte had managed to independently reperform this calculation to within an immaterial difference. More details of accrued energy income and provision for credit loss is provided in note 17 on pages 159 to 160.
Pensions The assets and liabilities, and the cost associated with providing benefits under defined benefit schemes is determined separately for each of the Group's schemes. Judgement is required in setting the key assumptions used for the actuarial valuation which determines the ultimate cost of providing post-employment benefits, especially given the length of the Group's expected liabilities. The net Group pension deficit was £79 million (2017: £886 million). The UK defined benefit schemes used a nominal discount rate of 3.0% (2017: 2.6%) and inflation of 3.1% (2017: 3.1%).	The Committee received training on the Centrica Pension Schemes in July. The Committee reviewed, challenged and approved the key assumptions and disclosures in the Financial Statements. The Committee noted the consistent year-on-year methodology used to derive the key defined benefit assumptions and that the rates were within comparator range. Independent actuaries are consulted on the appropriateness of the assumptions and discussions are also held with the external auditors. Further details on pensions are set out in note 22 on pages 165 to 169.
Going concern, viability statement and liquidity risk The Group experiences significant movements in its liquidity position due primarily to the seasonal nature of its business and margin cash. To mitigate this risk the Group holds cash on deposit and maintains significant committed facilities. The Group regularly prepares an assessment detailing these available resources to support the going concern assumption in preparing the Financial Statements. The Group also models various possible downside scenarios to show the longer-term viability of the business and to support the viability statement.	The Committee reviewed and challenged management's funding forecasts and sensitivity analysis and the impact of various possible adverse events including significant commodity price movements and credit rating downgrades. The external auditors also provided detailed reporting and held discussions with the Committee. Following the review, the Committee recommended to the Board the adoption of the going concern statement in the Annual Report and Accounts 2018 and concurred with the Viability conclusion. Further details on sources of finance are set out in note 24 on pages 171 to 173. The Going Concern section is in Other Statutory Information on page 112 and the Viability statement in Our Principal Risks and Uncertainties on page 51.
New Accounting Standards The Group was required to adopt IFRS 9: Financial Instruments and IFRS 15: Revenue from contracts with customers in 2018. Following a detailed review of Group's relevant transactions and positions, no material adjustments were required. In 2019, the Group will be required to adopt IFRS 16: Leases, bringing all leases on balance sheet and increasing net debt (by c.£420million). If ratified, it will also need to reflect a tentative IFRIC interpretation on the Physical settlement of contracts to buy or sell a non-financial item, in 2019. This interpretation would change the way the Group presents Revenue and Cost of Sales (although with no change to Gross Profit).	The Committee reviewed and challenged the Group's assessment of the accounting impact of IFRS 9 and IFRS 15 and also discussed the approach and conclusions with the external auditors. The Committee concurred with the conclusions reached on adoption of these standards. The Committee noted the likely impact of IFRS 16 on the future reporting of the Group and also the possible change to Revenue and Cost of Sales from the IFRIC interpretation. Further details on the new accounting standards are included in note 1 on pages 129 to 132.
Ofgem Consolidated Segmental Statement The Group is required to prepare an annual regulatory statement (Consolidated Segmental Statement (CSS)) for Ofgem which breaks down our licensed activities for the financial year into a generation, domestic and non-domestic and electricity and gas result. The CSS is reconciled to our externally reported International Financial Reporting Standards Annual Report and Accounts. The Group publishes the CSS at the same time as the full year Annual Report and Accounts and the CSS is independently audited. In preparing the CSS, judgement is required in the allocation of non-specific costs between domestic and non-domestic and electricity and gas and the distinction between licensed and non-licensed activities.	The Committee reviewed the Ofgem Consolidated Segmental Statement and the key judgements and disclosures made in its preparation. The external auditor also provided a detailed report and held discussions with the Committee. The full CSS and the independent audit opinion approved by the Committee for publication are set out on pages 222 to 233.

Safety, Health, Environment, Security and Ethics Committee

Steve Pusey
Committee Chairman

Dear Shareholder

On behalf of the Board, I am pleased to present the Safety, Health, Environment, Security and Ethics Committee (SHESEC) report for the year ended 31 December 2018.

I hope that you find this report an interesting explanation of both our work and SHESEC performance during the year.

The SHESEC is now in its third full year of operation and during 2018 continued to develop its agenda. During the year the Committee provided constructive challenge to the management of risks and reviewed the effectiveness of the control framework related to safety, health, environment, security and ethics.

The Committee continued to prioritise safety, and in particular process safety, as a key focus area. During the year there were considerable improvements in process safety performance with Centrica's process safety incident frequency rate (Tier 1 and 2) reducing to 0.06† per 200,000 hours worked (2017: 0.14). Whilst improving safety performance remained an ongoing priority, during 2018 we experienced one† Tier 1 process safety event, a gas release on the J6A platform within our Spirit Energy joint venture (2017 Tier 1 events: 0). Following the gas release, Centrica's Chief Engineer led an event investigation, the findings of which, including the action plan, were reviewed by the Spirit Energy Board, Centrica's Executive Management and the SHESEC.

Our Spirit Energy joint venture is required to comply with Centrica's health, safety, environment and security (HSES) policies, and is accountable to the Spirit Energy Board for its HSES performance. Spirit Energy's Boards' assurance of policy compliance is provided through Spirit Energy's HSES function and through Spirit Energy's Internal Audit team. Centrica assures Spirit Energy's performance through: the Centrica-appointed directors on the Spirit Energy Board; regular Centrica Executive Management and Centrica Board reviews of Spirit Energy HSES performance; and, where necessary, through the right to independently audit Spirit Energy's performance and compliance with our HSES policies.

The implementation of the General Data Protection Regulation (GDPR) and Centrica's GDPR Readiness Programme was another key area of focus during 2018. The Committee provided challenge and received assurance on the delivery of the Programme through regular Programme updates during the year. The Committee will consider this phase of the Programme in February 2019 and the Data Governance Council will assume ongoing responsibility for further phases to ensure longer-term compliance.

Following the Committee's 2017 briefing session on Our Code, the replacement for Centrica's former Business Principles and codes of conduct that existed across the Group, Our Code has been successfully rolled out across the Group and more than 96% of all employees have trained and certified against Our Code. In addition, the Committee oversaw the re-launch of Speak Up, a Group-wide online and phone-based helpline for the confidential reporting of violations of laws, regulations or company policies. This re-launch, together with Our Code training, has improved awareness of Speak Up and prompted a notable increase in the use of the line with 1.16 reports per 100 employees now being received (external benchmarks: 1.4 reports per 100 employees).

As well as the key activities undertaken or overseen by the SHESEC during the year through the Committee's structured forward programme, this report shares insights into our discussions.

Membership and meetings

The Committee comprises Steve Pusey (Chairman), Margherita Della Valle, Joan Gillman, Carlos Pascual and Scott Wheway. All of the Committee's members are independent Non-Executive Directors.

SHESEC members bring a wide range of sector experience, insight and stakeholder perspectives. This experience is used to challenge, shape and provide oversight of the SHESEC's agenda, supporting the Board to monitor the Group's work. Details of the matters discussed at Committee meetings are set out later in this report.

During the year the Chairman of the Board, the Group Chief Executive, the Group General Counsel & Company Secretary, the Group HR Director, the Group HSES Director and the Group Head of Internal Audit, Risk and Control attended all Committee meetings, as did other key executives.

The Committee met five times during 2018, with each meeting having a distinct agenda to reflect the particular matters for the SHESEC's consideration. The Committee also met twice with the Audit Committee; further details on these two meetings are included in the Audit Committee's report.

The SHESEC's forward programme is developed with the Group General Counsel & Company Secretary and is regularly reviewed. The SHESEC and Audit Committee worked together, through their Chairmen and secretaries, to ensure that agendas did not overlap or omit coverage of any key risks during the year.

At each meeting the Committee receives reports from Group HSES, Group Ethics & Compliance and Group Internal Audit & Enterprise Risk, in addition to deep dives on key areas of focus.

Role of the Committee

The Committee is responsible for keeping under review the adequacy and effectiveness of the Company's internal controls and risk management systems related to safety, health, environment, security and ethics in respect of:

- People: Engagement, Culture and Behaviours;
- Sourcing and Supplier Management;
- Infrastructure, Equipment and Practices affecting Health, Safety, Environment and Security;
- Information Systems and Security; and
- Legal, Regulatory and Ethical Standards Compliance.

Committee effectiveness

Read more about the Committee's effectiveness, which was considered as part of the Board evaluation process, set out on page 77.

Steve Pusey
Committee Chairman

Read more about our process safety performance in our Key Performance Indicators on
Pages 18 to 19

Read more about Our Code and the Speak Up helpline
centrica.com/ourcode

† Included in PwC's limited assurance engagements. See page 238 or centrica.com/assurance for more details.

Areas of focus

Modern Slavery Act (MSA) Statement

Outcome: 2017 MSA Statement reviewed and recommended to Centrica's Board for approval

Procurement and Supplier Management

Outcome: Reviewed and challenged Centrica's procurement and supplier management work practices in support of Centrica's compliance with the MSA 2015

Safety Leadership

Outcome: Safety leadership activities monitored and the impact these have on progress across the Group in reducing customer injuries and employee injuries, and in improving process safety performance, reviewed

People & Culture

Outcome: Overseeing the launch and monitoring interactions with Our Code, including the roll-out of a training module

Outcome: Monitoring confidential reporting to the Speak Up helpline

GDPR Readiness Programme

Outcome: Overseeing of the delivery of the Group's GDPR Readiness Programme

Cyber Security

Outcome: Monitoring the programme of work to respond to the evolving cyber security threat

Safety Critical Maintenance

Outcome: Monitoring of safety critical maintenance performance and reviewing the implementation of a new system to monitor the integrity of safety critical hardware barriers in order to improve overall process safety performance

Task Force on Climate-related Financial Disclosures (TCFD)

Outcome: TCFD recommendations reviewed

Occupational Safety Review

Outcome: Review of, and programme to address, musculoskeletal injuries evaluated

Environmental Strategy

Outcome: Progress on the Environmental Strategy deliverables, environmental performance and mid-term and longer-term plans reviewed

Improving Driver Safety

The World Health Organisation (WHO) reported in 2016 that 1.4 million people are killed on the world's roads annually, making roads the tenth leading cause of death, and the highest cause of death from injuries. Putting this into perspective, the leading cause of death, heart disease, resulted in 9.4 million deaths in 2016 and there are 490,000 malaria-related deaths annually.

At Centrica, our engineers drive in all weather conditions, day and night, ensuring our customers energy systems are reliable and that breakdowns are resolved quickly. We recognise the hazards associated with driving and manage this risk by using vehicles with high safety ratings, deploying vehicle telemetry systems to monitor driver behaviour and delivering training programmes to improve skills (such as defensive driving).

Both the WHO and the Royal Society for the Prevention of Accidents have recognised the risk associated with the use of mobile devices (for example, telephones and tablets) when driving and in 2011 Centrica prohibited the use of mobile devices while driving. Since then improvements in telematics and mobile telephone GPS systems have helped us better understand how driving behaviour has changed. Thus, in early 2017 we introduced an operations-led global Driver Safety Forum to ensure that we monitor and learn from driving behaviours, improve our communications when promoting safer driving and implement good practices identified both internally and externally. Our focus on driver safety continues to improve our safety performance relating to road traffic events and in the 18 months since the introduction of the Driver Safety Forum we have seen a 31% reduction in reported events.

0.21

Accidents in 2018
per 1,000,000 km driven
(2017: 0.32)

Disclosure Committee

Iain Conn
Group Chief Executive

Dear Shareholder

On behalf of the Board, I am pleased to present the Disclosure Committee report for the year ended 31 December 2018. The Disclosure Committee is responsible for the disclosure controls and procedures of the Group and for ensuring that Centrica meets the regulatory requirements when disclosing information concerning the Company.

What the Committee did in 2018

- Reviewed the preliminary results announcement, the annual report and accounts, the interim results and the trading statements and advised on the scope and content of disclosure;
- considered the release of regulatory and industry announcements;
- reviewed announcements regarding Board and key management changes; and
- considered specific confidential projects to determine whether there was inside information about the Company that would be required to be disclosed.

Membership and attendance at meetings

The Committee is comprised of the Group Chief Executive, Group Chief Financial Officer and Group General Counsel & Company Secretary. The Committee met 10 times during 2018, with each meeting having a distinct agenda to reflect the particular matters for the Committee's consideration.

Role of the Committee

The Disclosure Committee is responsible for the design, implementation, operation, monitoring and periodic evaluation of systems and controls in respect of the management and disclosure of inside information and for ensuring that regulatory announcements, shareholder circulars, prospectuses and other documents issued by the Company comply with applicable legal or regulatory requirements and specifically the Market Abuse Regulation and the Listing Rules and Disclosure and Transparency Rules. The Committee resolves questions about the materiality and treatment of information and considers and determines whether certain issues or events give rise to inside information about the Company which requires disclosure and/or the creation of insider lists. The committee, in conjunction with its advisers, will also, in certain exceptional circumstances, consider whether the conditions for delaying disclosure of inside information about the Company are satisfied and, where appropriate, will implement and monitor the delay procedure.

The Committee has scheduled meetings each year to approve the interim and preliminary results announcements and trading statements and meets as required to review other matters falling under the Committee's remit.

Areas of focus

Results Announcements

Review of results announcements to determine scope and content of disclosure

Confidential Projects

Review specific confidential projects to determine whether there was inside information requiring disclosure

Management and Disclosure of Inside Information

Systems and controls in respect of management and disclosure of inside information

Committee effectiveness

Read more about the Committee's effectiveness which was considered as part of this evaluation process, set out on page 77.

Iain Conn
Group Chief Executive

Nominations Committee

Rick Haythornthwaite
Chairman

Dear Shareholder

On behalf of the Board, I am pleased to present the Nominations Committee's report for the year ended 31 December 2018. I hope you will find the report that follows interesting and informative.

The year has been particularly busy for the Committee in relation to succession planning and, specifically, refreshing the executive and non-executive membership of the Board. The Committee has also been active in internal talent development and has conducted a rigorous externally facilitated review of its performance.

Board succession

Throughout the year, the Committee focused on Board succession. Succession planning within Centrica is continuous and pro-active and arrangements are in place to ensure that changes to the membership of the Board are well managed.

The Committee embraces the importance of diversity and inclusion in all Board recruitment and supports the recommendations of the Hampton-Alexander and Parker Reviews in relation to gender and ethnic diversity. The Committee remains committed to achieving a broader, more diverse Board and broad search criteria is used to encourage a diverse range of candidates.

Non-Executive Directors

During the year, a search process was initiated to identify a potential successor to Lesley Knox who stepped down from the Board in December 2017. A suitable female candidate was approached during 2018 for the position but was unable to accept the role owing to an emerging conflict with her existing commitments. The search process continued and on 15 January 2019, we announced the appointment of Pam Kaur as a Non-Executive Director, effective 1 February 2019.

In May 2018, after having served nearly six years on the Board, five of these as Chairman, I announced my intention to step down from the Board. The Committee agreed the role profile for my successor and determined that, in line with good corporate governance, Stephen Hester, the Senior Independent Non-Executive Director, should lead the search process on behalf of the Committee and the Board. Following a review of potential search firms, the Committee agreed to appoint the international executive search consultancy, Korn Ferry, which has no other connection with Centrica, to support the recruitment process. Following a comprehensive search process, the Committee recommended, and the Board approved, the appointment of Charles Berry as Non-Executive Director and Chairman designate with effect from 31 October 2018. Charles will be appointed Chairman after I step down from the Board on 21 February 2019.

During the year, a search process was initiated for a Non-Executive Director with the potential to succeed Margherita Della Valle, Non-Executive Director and Audit Committee Chairman, who will step down from the Board in 2019 having completed her nine-year term in office. Russell Reynolds, the executive search consultancy, which has no other connection with Centrica, was appointed to conduct the search and on 15 January 2019 we announced that Kevin O'Byrne will join the Board in May 2019 replacing Margherita as Chairman of the Audit Committee.

Executive Directors

After serving three years as Group Chief Financial Officer, Jeff Bell announced his intention to step down from the Board. In addition, Mark Hanafin, Chief Executive, Centrica Business, announced his retirement after serving 10 years on the Board. Spencer Stuart, the executive search and leadership consultancy who support Centrica more generally in relation to its executive succession planning, was appointed to initiate a search for both roles which involved a comprehensive assessment process against agreed Executive Director profiles. Both internal and external candidates were considered for the roles. Assessment against these role profiles confirmed that Chris O'Shea and Richard Hookway would be valuable additions to the Centrica Board in the respective roles of Group Chief Financial Officer and Chief Executive, Centrica Business. Following consideration of both individuals, the Nominations Committee recommended, and the Board approved, their respective appointments. Both have extensive experience gained across a range of industries, including the energy sector, and this broad business and commercial knowledge will assist the Board considerably in its future plans.

In December 2018, Mark Hodges, Chief Executive, Centrica Consumer, announced that after nearly four years with the Company he would be stepping down from the Board on 28 February 2019. I am pleased to announce that Mark has been succeeded by an internal candidate, Sarwjit Sambhi, Managing Director of Centrica's Consumer Division.

Senior Executives

In December, we announced that Grant Dawson, Group General Counsel & Company Secretary, would retire from the Company in March 2019 after serving 22 years. I am delighted to report that, following an assessment by Spencer Stuart, Grant will be succeeded by an internal candidate, Justine Campbell in April 2019. Justine has been with Centrica since 2013 and has considerable legal and regulatory experience in both the energy and telecommunications sectors.

Committee Memberships

In addition, the Nominations Committee has overseen changes to the membership of the Remuneration Committee. Having served as a member of the Remuneration Committee since 1 January 2011, Margherita Della Valle stepped down from the Committee with effect from 17 October 2018. Stephen Hester succeeded Margherita as a member of the Remuneration Committee with effect from the same date.

Talent development

Internal talent development and the ability to attract, retain and develop skilled, high potential individuals within Centrica is an area that the Committee has again focused on. Working with the Group HR Director, the Committee reviewed the strength of the succession plans in place for Executive Directors and certain senior management roles. The Committee recognises the importance of and the benefits to the Company by developing a pipeline of diversity as it continues to work with senior management to develop internal talent.

> “We were very pleased with the process to appoint Charles as Centrica’s next Chairman. After thorough internal discussion and key shareholder consultations, our brief met good response with a well qualified and diverse shortlist. Charles was the unanimous choice of the Nominations Committee and Board.”
>
> **Stephen Hester**
> Senior Independent Director

Areas of focus

Succession planning of Non-Executive Directors

- Female successor to Lesley Knox;
- Chairman designate to succeed Rick Haythornthwaite; and
- Audit Committee Chairman to succeed Margherita Della Valle.

Succession planning of Executive Directors

- Successors to the Group Chief Financial Officer and the Chief Executive, Centrica Business; and
- internal candidate to succeed the Chief Executive, Centrica Consumer.

Talent Development

- Reviewed succession plans; and
- internal candidate to succeed the Group General Counsel & Company Secretary.

Committee Membership

- Change in membership of the Remuneration Committee.

Membership and attendance at meetings

The Committee is comprised solely of independent Non-Executive Directors, Rick Haythornthwaite (Chairman), Charles Berry, Margherita Della Valle, Joan Gillman, Stephen Hester, Carlos Pascual, Steve Pusey and Scott Wheway. The Board is satisfied that the Committee has the resources and expertise to fulfil its responsibilities.

During the year, meetings of the Committee were attended by the Group Chief Executive and Group HR Director, none of whom do so as a right. Other Senior Executives attended as required to provide information on matters being discussed which fall within their area of responsibility.

The Committee met 11 times during 2018, with each meeting having a distinct agenda to reflect the particular matters for the Committee’s consideration.

Role of the Committee

The Nominations Committee is responsible for ensuring that the Board and its Committees have the appropriate balance of skills, knowledge and experience to effectively lead the Company both in the present and the future. This is achieved through effective succession planning, the identification and development of internal talent and a clear understanding of the competencies and capabilities required to support the delivery of Centrica’s strategy.

The Committee continually reviews the leadership needs of the Company, both executive and non-executive, to ensure the continued ability of the organisation to compete effectively in the marketplace, and keeps fully informed of the strategic issues and commercial changes affecting the Company and the market in which it operates.

The Committee plays an important role in promoting diversity and inclusion on the Centrica Board. In identifying and nominating candidates to fill Board vacancies, the Committee considers candidates from a wide range of backgrounds, assessing them on merit against objective criteria and with due regard for the benefits of diversity on the Board, including gender and ethnicity.

Committee effectiveness

Read more about the Committee’s effectiveness which was considered as part of this evaluation process, set out on page 77.

Rick Haythornthwaite
On behalf of the Nominations Committee

Remuneration Report

Scott Wheway
Non-Executive Director

On behalf of the Board, I am pleased to present the Remuneration Committee's report for 2018.

In May 2018, following an extensive consultation exercise, we asked shareholders to approve our revised Remuneration Policy (Policy) which we sought to ensure was more closely aligned to our strategy and the delivery of long-term shareholder value through returns and growth (see box below). We were pleased to receive the support of over 95% of our shareholders for our revised Policy.

This report describes how we have implemented this Policy in its first year of operation.

Principal changes to Remuneration Policy approved by shareholders in 2018

- Introduced Total Shareholder Return (TSR) into the Long term Incentive Plan (LTIP).
- LTIP therefore has four measures: 33% weighting to relative TSR and 22% weighting to each of economic profit, cash flow growth and non-financial KPIs.
- Increased the weighting of financial performance within the Annual Incentive Plan (AIP) and moved to 75% financial and 25% personal objectives.
- Increased the shareholding requirement for Executive Directors from 200% to 300% of salary, and introduced a post-cessation shareholding requirement.
- Simplified our bonus deferral to three-year cliff vesting (rather than phased vesting).
- Reduced the maximum pension salary supplement level for newly recruited Executive Directors to 25% of salary.

Joiners and leavers during the year

In operating our Policy during the year, we determined the remuneration arrangements for three new Executive Directors (Executives), two external appointments and one internal promotion, as well as agreeing arrangements for two departing Executives. These arrangements were disclosed at the time and are set out in this report on page 99. In all cases the standard provisions of our Policy applied, taking into account the individual circumstances of each case. The Committee considered the fixed elements of remuneration carefully and in particular, offered pension contributions for all three Executives below the newly established Policy maximum level.

Responding to the Corporate Governance Code

The Committee carefully considered the requirements relating to remuneration committees in the revised Code, which applies from 1 January 2019, and the Committee's Terms of Reference were reviewed and updated. During the year we discussed how we would ensure the Committee better understands remuneration arrangements and related policies applying across the wider workforce and that these are taken into consideration when setting and agreeing executive remuneration. To enable employee views to be taken into account in Committee discussions and decision-making, we have invited Joan Gillman to participate in discussions in her capacity as employee champion for the Board.

In addition, and in response to investor guidance, we disclose our CEO pay ratio below, a year ahead of the statutory requirement.

CEO pay ratio

The Company has used its gender pay gap data (Option B in the Directors' Reporting Regulations) to determine the employees whose remuneration packages sit at the lower, median and upper quartile positions across the UK workforce. We have calculated the annual remuneration relating to 2018 for the three identified employees on the same basis as the CEO's total remuneration for 2018 in the single figure table, to produce the ratios below:

Quartile position	Employee job profile	Total remuneration	CEO pay ratio
Lower	Smart Energy Expert	£33,718	72:1
Median	Servicing Engineer	£41,239	59:1
Upper	Technical Engineer	£55,107	44:1

In future years the ratio will be disclosed in a table in the remuneration report, building incrementally to show the ratios over a 10-year period.

Remuneration outcomes for the year

Overall, this has been another challenging year, with volatile commodity prices, strong competitive pressures and significant political and regulatory intervention in our markets. The Committee has been impressed by the resilience of the leadership team which has pulled together strongly to deliver against a wide range of targets. In respect of financial performance, the AIP adjusted operating profit (AOP) target, which had a 40% weighting, was not achieved. However, with strong cost efficiency delivery above the maximum performance level (20% weighting) and capital discipline, the cash flow target (40% weighting) was marginally exceeded. On balance the Committee felt that the formulaic outcome against the financial performance targets set was a fair reflection of performance and was satisfied that the resulting 60.5% of salary was an appropriate outcome.

The Committee has considered the individual performance of the Executives and a summary of the assessment for each individual is set out on pages 95 to 96. Total AIP awards were therefore in the range of 80% to 82% of salary, compared to a target and maximum of 100% and 200% respectively.

The Committee also assessed the vesting outcome for long-term incentive awards that were made in early 2016. The LTIP awards were dependent on adjusted earnings per share (EPS), economic profit (EP), safety performance, employee engagement and customer service delivery as assessed by net promoter scores. Based on performance against these metrics over the three years the LTIP will vest at a level of 18% of the award. The value of the shares initially granted under the 2016 award has fallen and as such represents an outcome of approximately 41% of salary.

A summary of the short and long-term outcomes is presented in the charts over the following two pages.

Application of Policy for 2019

During October and November 2018, a pension benefit consultation took place across the membership of the Group's UK defined benefit plans. Once the outcome of the consultation became clear, which would see future benefit accrual reduce in response to rising costs and competitive pressure, the Committee discussed and agreed with a proposal from the leadership team that pension contributions for existing Executives and other members of senior management would reduce to a maximum of 15% with effect from 1 June 2019. This represents reductions of between one half and one quarter in the pension benefit for affected Executives and represents appropriate alignment with the wider workforce.

In 2019, only Iain Conn will receive a salary increase, of 1.9%, being below the average level of salary increases across the UK workforce. The other Executives are either new in position or are leaving during the year.

The Committee has reviewed the bonus measures and weightings to apply for 2019, in line with the Group Annual Plan, and no change is proposed.

LTIP measures will also remain unchanged for 2019 awards, with targets set to align with realistic but stretching outcomes for the business. Further detail on incentive measures and targets can be found on page 103.[1]

Conclusion

The Committee continues to take a disciplined approach to executive remuneration that seeks to ensure Executives are appropriately rewarded while ensuring alignment with the shareholder experience and execution of strategy. The Committee believes that the decisions made over the year achieve this aim and align pay and performance effectively. The Committee is dedicated to an open and transparent dialogue with our investors and therefore I welcome views on any part of our remuneration arrangements.

Scott Wheway
Non-Executive Director

Membership and attendance

The Committee is chaired by Scott Wheway, an independent Non-Executive Director. Each member of the Committee is independent. No Director is involved in the determination of, or votes on, any matters relating to his or her own remuneration.

The Chairman of the Board, the Group Chief Executive, the Group General Counsel & Company Secretary, the Group HR Director and the Deputy Group HR Director & Group Head of Reward are normally invited to attend each Committee meeting to provide advice and guidance, other than in respect of their own remuneration.

Role of the Remuneration Committee

The role of the Committee continues to be ensuring that the Executives, the Executive Committee and the Chairman of the Board are appropriately rewarded, through making recommendations regarding remuneration policy and framework. The revised Terms of Reference further extend the Committee's remit to include greater responsibility for understanding how pay and conditions align across the Group.

The Committee monitors and reviews the effectiveness of the Directors' Remuneration Policy and considers its impact and compatibility with remuneration policies across the wider workforce. To facilitate this extended remit, the Committee is provided with information and context on pay, benefits and incentive structures in place across the Group to support its decision-making.

Areas of focus

Executive Director recruitment and terminations announced in 2018

Revised investor remuneration guidelines

The revised Corporate Governance Code and remuneration committees

Pay, benefits, incentives and policy across the wider workforce

Business performance and remuneration outcomes

[1] Confirmation of the 2019 LTIP grant level will be provided in our announcement, which will be available on the London Stock Exchange shortly after the grant on 1st April 2019.

Remuneration Summary for 2018

Total remuneration received in 2018 (£000)[1]

Iain Conn
£2,416
2017: £1,678

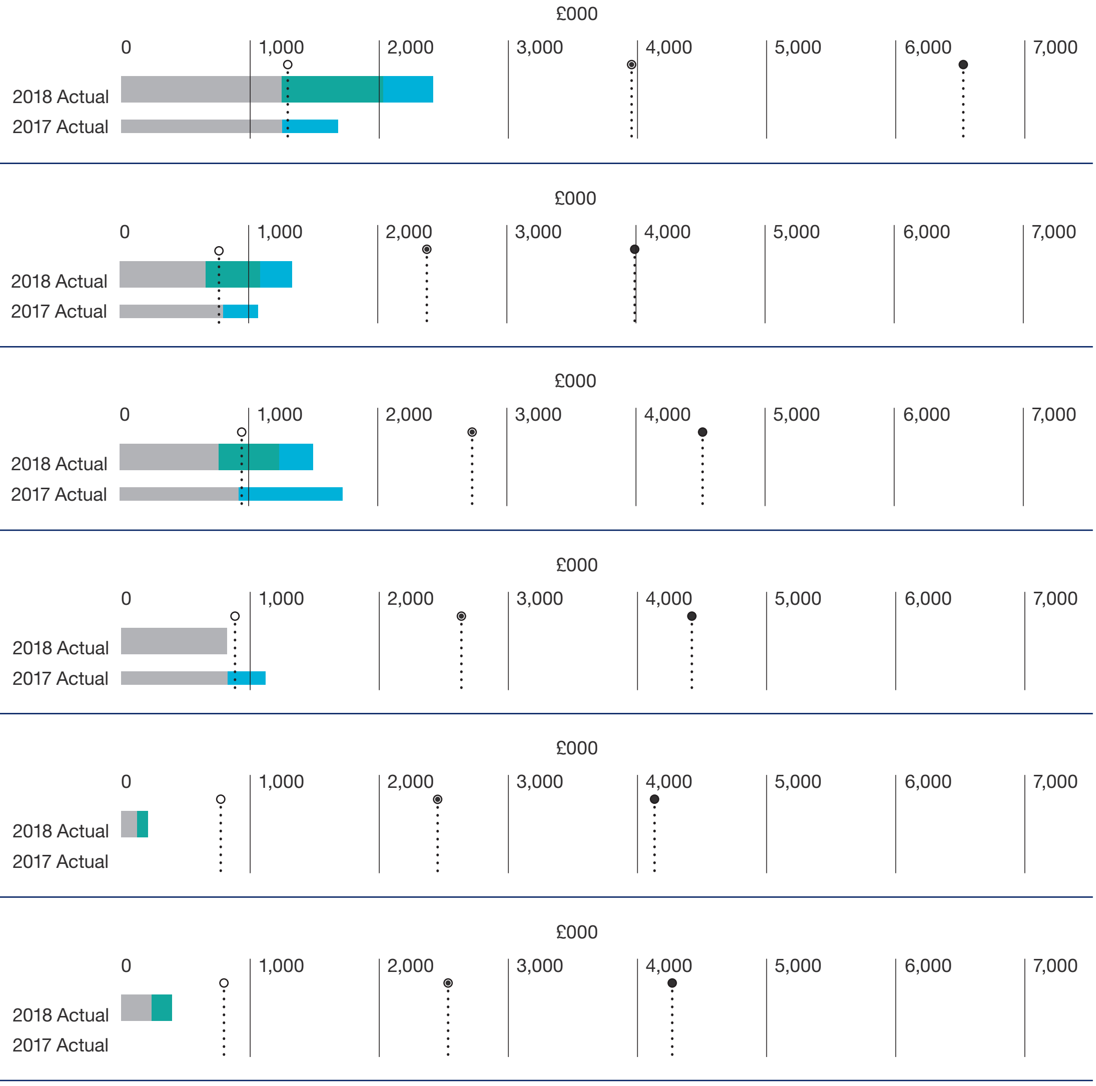
Jeff Bell
£1,241
2017: £994

Mark Hanafin
£1,501
2017: £1,726

Mark Hodges[2]
£822
2017: £1,119

Richard Hookway
£206

Chris O'Shea
£394

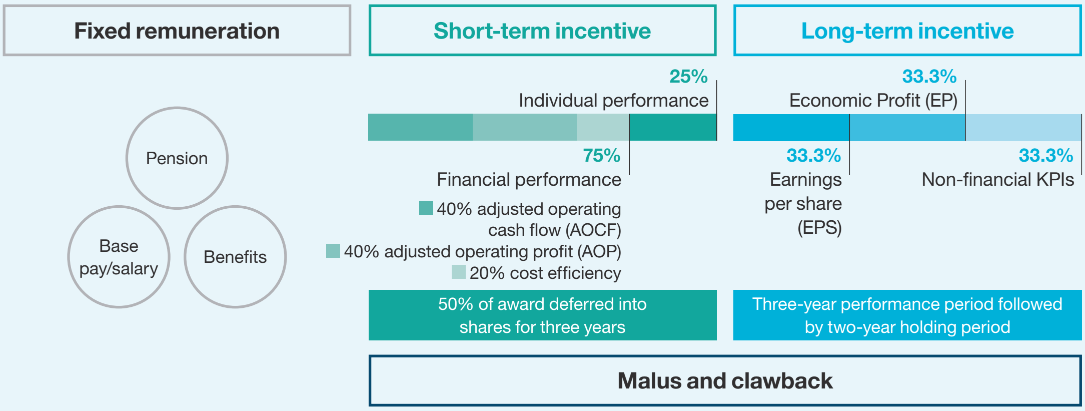


- ▨ Fixed remuneration
- 🟩 Short-term incentive
- 🟦 Long-term incentive

- ●·· Maximum total pay
- ◉·· On-target total pay
- ○·· Minimum total pay

[1] Prepared on the same basis as the single figure for total remuneration table set out on page 94.
[2] As Mark Hodges is leaving the Company on 28 February 2019 his AIP and LTIP awards have been forfeited in full.

Components of remuneration package earned/vested in 2018



Fixed remuneration

Pension
Base pay/salary
Benefits

Short-term incentive

25%
Individual performance

75%
Financial performance

- 40% adjusted operating cash flow (AOCF)
- 40% adjusted operating profit (AOP)
- 20% cost efficiency

50% of award deferred into shares for three years

Long-term incentive

33.3%
Economic Profit (EP)

33.3%
Earnings per share (EPS)

33.3%
Non-financial KPIs

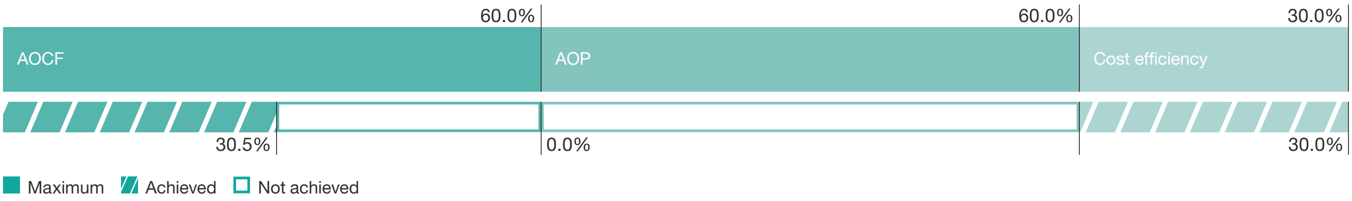
Three-year performance period followed by two-year holding period

Malus and clawback

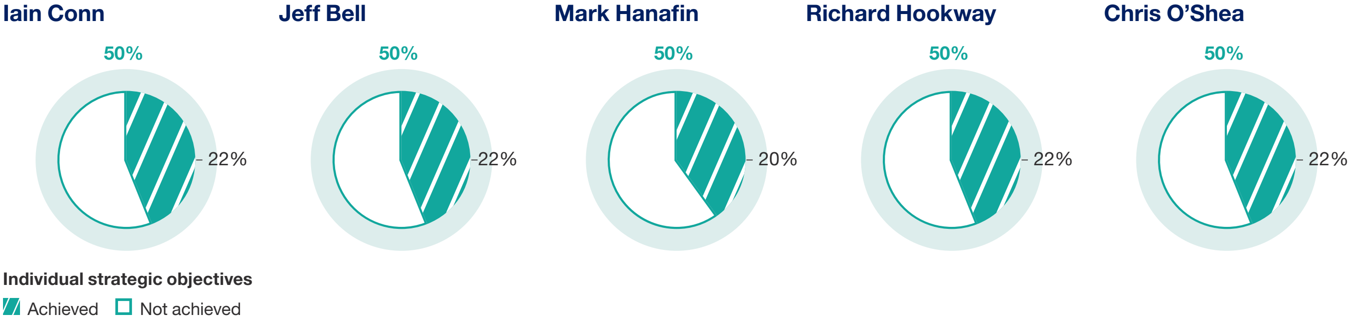
Read more about Our Remuneration Policy
Pages 104 to 109

Short-term incentive outcome (Annual Incentive Plan)

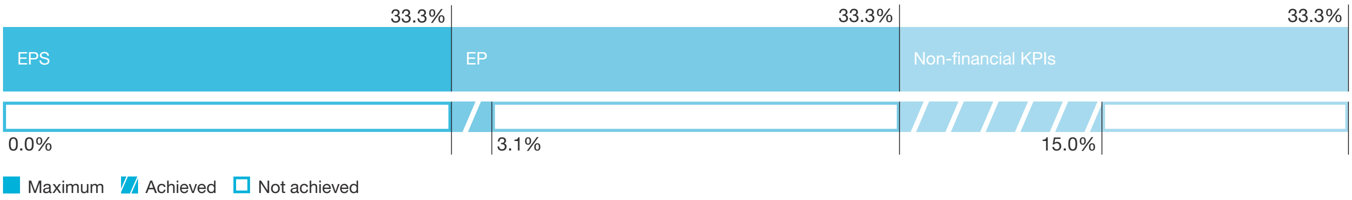
Financial performance



Individual performance

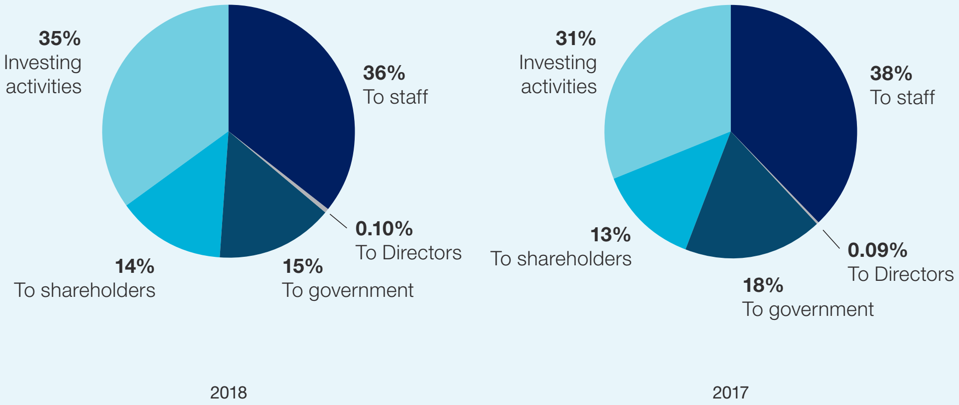


Long-term incentive outcome (Long Term Incentive Plan)



2018 cash flow distribution to stakeholders

The Committee monitors the relationship between the Directors' total remuneration and cash outflows to other stakeholders. As demonstrated by the chart, the Directors' aggregate total remuneration for the year equates to 0.10% (2017: 0.09%) of the Group's operating cash flow.



Directors’ Annual Remuneration Report

Directors’ remuneration in 2018

This report sets out information on the remuneration of the Directors for the financial year ended 31 December 2018.

Single figure for total remuneration (audited)

	Salary/fees		Bonus (cash)		Bonus (deferred)		Benefits[1]		LTIPs		Pension[4][5]		Total	
£000	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018[2]**	2017[3]	**2018**	2017	**2018**	2017[3]
Executives														
Iain Conn	**940**	936	**388**	–	**388**	–	**31**	30	**387**	431	**282**	281	**2,416**	1,678
Jeff Bell[6]	**479**	569	**198**	–	**198**	–	**35**	27	**230**	252	**101**	146	**1,241**	994
Mark Hanafin[6]	**584**	634	**235**	–	**235**	–	**23**	25	**261**	805	**163**	262	**1,501**	1,726
Mark Hodges[7]	**638**	634	**–**	–	**–**	–	**25**	34	**–**	292	**159**	159	**822**	1,119
Richard Hookway[8]	**100**	–	**41**	–	**41**	–	**4**	–	**–**	–	**20**	–	**206**	–
Chris O’Shea[9]	**191**	–	**79**	–	**79**	–	**7**	–	**–**	–	**38**	–	**394**	–
Total													**6,580**	5,517

[1] Taxable benefits include car allowance, health and medical benefits and financial planning advice. Non-taxable benefits include matching shares received under the Share Incentive Plan (SIP). Both taxable and non-taxable benefits are included in the table.

[2] LTIPs include the estimated value of the LTIP awards granted in 2016 and due to vest in April 2019, relating to the three-year performance period ending in 2018. Details of the performance outcomes are set out on pages 97 to 98. The estimated value of dividend equivalent shares has been included and the share price used to value the awards is 143.39 pence (the average share price from 1 October to 31 December 2018).

[3] The values of the LTIP awards vesting in April, May and August 2018 have been recalculated based on the share price on the dates of vest which were 139.57, 153.63 and 146.70 pence respectively. The previous disclosure in the 2017 single figure table used an estimated share price. Iain Conn, Jeff Bell, Mark Hanafin and Mark Hodges’ total remuneration for 2017 has therefore been restated to include the amended value of these awards.

[4] Notional contributions to the Centrica Unapproved Pension Scheme defined contribution section (CUPS DC) for Jeff Bell, Mark Hanafin, Richard Hookway and Chris O’Shea have been included in this table as if CUPS DC was a cash balance scheme. This includes a deduction in respect of an allowance for CPI inflation on the opening balances of 3.0% in 2018 (0.9% in 2017). The 2017 pension benefit for Jeff Bell has been restated due to a minor reporting error in the 2017 disclosure.

[5] Iain Conn and Mark Hodges were entitled to receive a salary supplement of 30% and 25% of base salary respectively in 2018.

[6] Jeff Bell stepped down from the Board on 31 October 2018 and Mark Hanafin stepped down from the Board on 30 November 2018. The remuneration in this table includes their prorated salary, bonus, benefits and pension benefits earned up to the date they stepped down. The remuneration for the remainder of the year, whilst they were working their remaining notice periods, has been disclosed in the payments for loss of office disclosure below. The full estimated value of the LTIP awards granted in 2016 and due to vest in April 2019 has been included in the single figure table above.

[7] As Mark Hodges had tended his resignation and agreed a leaving date of 28 February 2019, his AIP award relating to the 2018 year, and all unvested LTIP awards as at his date of leaving, were forfeited.

[8] Richard Hookway joined Centrica on 1 November and was appointed to the Board on 1 December 2018. The remuneration in this table relates to the period from 1 November to 31 December 2018.

[9] Chris O’Shea joined Centrica on 10 September and was appointed to the Board on 1 November 2018. The remuneration in this table relates to the period from 10 September to 31 December 2018.

Single figure for total remuneration (audited)

	Salary/fees		Bonus (cash)		Bonus (defered)		Benefits		LTIPs		Pension		Total	
£000	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017	**2018**	2017
Non-Executives														
Rick Haythornthwaite	**495**	495	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**495**	495
Charles Berry[1]	**12**	–	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**12**	–
Margherita Della Valle	**98**	98	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**98**	98
Joan Gillman	**73**	73	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**73**	73
Stephen Hester	**93**	93	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**93**	93
Lesley Knox[2]	**–**	80	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**–**	80
Carlos Pascual	**73**	73	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**73**	73
Steve Pusey	**93**	93	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**93**	93
Scott Wheway	**93**	85	**–**	–	**–**	–	**–**	–	**–**	–	**–**	–	**93**	85
Total													**1,030**	1,090

[1] Charles Berry was appointed as a Non-Executive Director on 31 October 2018.

[2] Lesley Knox resigned as a Non-Executive Director on 31 December 2017.

Payments for loss of office (audited)

Jeff Bell stepped down from the Board on 31 October 2018. He continued to work through his notice period and to receive his contractual salary, benefits and entitlement to incentives. For the period from 1 November to 31 December 2018, Jeff was paid £95,833 in base salary, £6,971 in benefits, £17,000 in pension benefits and £79,096 under the AIP.

Mark Hanafin stepped down from the Board on 30 November 2018. He continued to work through his notice period and to receive his contractual salary, benefits and entitlement to incentives. For the period from 1 December to 31 December 2018, Mark was paid £53,125 in base salary, £2,044 in benefits, £16,000 in pension benefits and £44,211 under the AIP.

The full leaving arrangements for Jeff Bell and Mark Hanafin are set out on page 99.

There were no other payments for loss of office in 2018.

Base salary/fees

There were no increases to base salaries for Executives in 2018.

Base fees for Non-Executives, as well as the additional fee for the Chairman of the Audit Committee, were last increased on 1 January 2016. There were no increases to the fees for Non-Executives during 2018.

Bonus – Annual Incentive Plan (AIP)

The charts on page 93 under short-term incentive outcome indicate the extent of achievement against the financial and individual strategic objectives for each Executive.

In line with the Remuneration Policy, 75% of the award was based on a mix of financial measures based on Centrica's priorities for 2018 and 25% was based on personal objectives. Half of any AIP award is deferred into shares which are held for three years.

For the operation of the AIP in 2018, 40% of the financial measures was based on adjusted operating cash flow (AOCF), 40% was based on adjusted operating profit (AOP) and 20% was based on cost efficiency, with targets aligning to the Group Annual Plan.

AOCF of £2,241 million was required for target achievement and £2,465 million was required for maximum. The threshold level was £2,017 million. AOCF of £2,245 million was generated in 2018, resulting in an outcome of 100.2% of target for this element of the AIP.

AOP of £1,636 million was required for target achievement and £1,800 million was required for maximum. The AOP result for 2018 was below the threshold level of £1,472 million resulting in a zero outcome for this element of the AIP.

Cost efficiency of £240 million was required for target achievement and £264 million was required for maximum. Cost efficiency of £286 million was generated in 2018 resulting in an outcome of maximum for this element of the AIP.

As Mark Hodges had tended his resignation and agreed a leaving date of 28 February 2019, his AIP award relating to the 2018 year was forfeited in full.

Performance against individual strategic objectives in 2018

In line with the Group's annual performance management process, each Executive had an agreed set of stretching individual objectives for 2018. Set out below is the Committee's assessment of the achievement against these objectives for each Executive.

Iain Conn

Progress has been made on many fronts against a multi-faceted strategy to entirely reshape the Group, with the challenge of a constantly shifting operating environment. Iain has shown significant resilience in the face of this challenge and has led the business through the shifting context, keeping the strategic objectives in sight and ensuring that the organisation remains adaptable and innovative. Good progress has also been made in building the necessary capabilities to meet the Group's future needs.

In terms of business performance, Centrica Consumer was marginally behind plan but in the context of the competitive and regulatory environment, this was a strong performance. Customer account growth in services was achieved on both sides of the Atlantic and consumer account losses reduced materially over the year. NPS scores were maintained and continued focus on customer segmentation across the division had a positive impact on retention. There were improved results from Connected Home and DE&P. However, the asset businesses and North America Business performed less well. Financial outcomes on operating cash flow, costs, capex, and net debt met the Board's expectations, whilst a further £286 million of cost efficiencies were delivered and headcount reduction was ahead of target.

Safety continues to be a significant priority and strong progress has been made in the year with a breakthrough in process safety and an improvement in customer safety, although occupational safety performance was marginally below target. In the area of compliance and conduct, relationships with regulators have been constructive and open.

In delivering for the customer, complaint levels reduced in most areas; apart from UK Home services and North America Business, and NPS results were stable. A number of new propositions were successfully implemented during the year and customer churn was materially reduced.

Overall, Iain has demonstrated exceptional leadership during the year; however, delivery has been behind the expectations of the market despite relatively attractive in-year TSR performance.

Jeff Bell

Jeff Bell delivered well against the objectives set out for 2018. Operationally, he improved the control environment across the Group, notably in North America Business. He drove forward the finance transformation and associated efficiencies and successfully initiated the pension triennial review process. The quality of the overall group system of risk and internal control was maintained whilst significant change was managed within the function.

On the capital structure and resilience of the Group, execution of the liability management programme was a highlight, delivering quality savings, while strong engagement with the credit rating agencies resulted in a stable perspective despite the prospect of an energy price cap in the UK.

Within the finance function, capability has been enhanced and improvements were delivered in performance management processes. Jeff also drove significant value through Procurement and established the Spirit Energy entity and associated performance oversight processes.

Externally, Jeff played a major role in engaging with investors throughout the year.

Overall for Jeff, 2018 was a solid year of delivery across a very broad agenda. In addition, the transition towards a new Chief Financial Officer, and associated handover, was exemplary.

Mark Hanafin

2018 was a challenging year in which Mark delivered considerable strategic and operational progress across Centrica Business and established the Spirit Energy JV and its associated Board and shareholder processes. Financial performance was mixed, with some significant achievements in EM&T, UK Business and growth in DE&P.

In the area of safety, compliance and conduct, a step-change has been delivered during the year in process safety performance and market conduct within EM&T, and controls within North America Business were robust. Occupational safety was mixed and included some disappointing results in DE&P. In delivering for the customer, account numbers were stable and NPS improved in all customer facing business units.

At the business unit level, the recovery of UK Business was notable for the quality of margin management and innovation. Under Mark's leadership the business responded well to the issues arising in 2017 and focused on customer segmentation, improved propositions and tight gross margin forecasting, resulting in on-plan financial performance.

Elsewhere in Centrica Business, EM&T performed well and NEAS continues to make a strong contribution. LNG also secured important business development options for the future. However, performance during the year in North America Business was disappointing.

The underlying performance delivery within Spirit Energy was poor, with production finishing the year behind plan. The business did, however, improve process safety significantly. In Nuclear, progress was made in the divestment process but underlying performance was affected by safety and regulatory concerns in a number of sites resulting in lower throughput.

Overall, Mark demonstrated strong leadership during the year, providing direction, coaching and support, but the financial performance overall in Centrica Business was behind plan.

Richard Hookway

Richard has made an impressive start in his role as Chief Executive for Centrica Business. He brings a deep understanding of running large scale international energy businesses and is already demonstrating his capabilities and experience.

Chris O'Shea

Chris is a very experienced Chief Financial Officer, having operated internationally within large complex organisations. His experience of energy, commodity businesses and of key commercial aspects such as pricing and performance/risk management are so far being demonstrated strongly and, following a well-executed handover, he is fully engaged with the important strategic and performance issues facing the Group.

Long-term incentive awards due to vest in 2019

Performance conditions

The performance conditions relating to the three-year period ending in 2018 are set out below, together with an explanation of the achievement against these performance conditions. The chart on page 93 under long-term incentive outcome, indicates the extent of achievement against each measure.

LTIP performance conditions

Vesting criteria	Performance conditions over three-year period
1/3 based on EPS growth over the 3-year period 2016/18	Full vesting for EPS growth of 24% or more Zero vesting if EPS growth does not exceed 9% Vesting increases on a straight-line basis between these points
1/3 based on absolute aggregate EP over the 3-year period 2016/18	Full vesting for aggregate EP of £3,500 million Zero vesting if aggregate EP is below £1,500 million Vesting increases on a straight-line basis between these points
1/3 based on non-financial KPI dashboard over the 3-year period 2016/18	As disclosed below

Performance outcome

Adjusted earnings per share (EPS)

EPS is the Company's basic earnings per share adjusted for exceptional items and certain re-measurements net of taxation.

EPS growth during the three-year period ending with 2018 did not exceed RPI growth by 9%. Consequently, the EPS portion of the 2016 LTIP award will not vest.

Economic profit (EP)

EP is the adjusted operating profit (after share of joint venture interest) less a tax charge based on the tax rate relevant to the different business segments and after deduction of a capital charge. The capital charge is calculated as capital employed multiplied by the Group's weighted average cost of capital. Where appropriate, expenditure on assets (and related costs) that are not yet in use (pre-productive capital) is excluded from capital employed.

Aggregate EP achieved during the three-year period ending with 2018 was £1,683 million when compared to a threshold level of £1,500 million and a maximum level of £3,500 million. Consequently, 9% of the EP portion of the 2016 LTIP award will vest.

LTIP non-financial KPI dashboard

Performance against five equally weighted KPIs is measured each year. Achievement against each target determines the performance zone outcome. The KPI dashboard comprises results over a three-year period.

Throughout each three-year performance period, for each median performance zone outcome, 5% of the KPI portion of the award will be forfeited and for each low performance zone outcome, 10% of the KPI portion of the award will be forfeited.

🟢 High performance zone
🟠 Median performance zone
🔴 Low performance zone

Non-financial KPI update for long-term incentive plans vesting in 2019 and 2020

KPI performance under the LTIP

Set out below is the achievement against the KPI dashboard for the LTIP awards granted in 2016 and 2017.

	Performance period – LTIP awards granted in 2016 and due to vest in 2019			Performance period – LTIP awards granted in 2017 and due to vest in 2020		
Measure	Year 1	Year 2	Year 3†	Year 1	Year 2†	2018 performance
Lost time injury frequency rate (LTIFR)	🟢	🟢	🟢	🟢	🟢	LTIFR worsened from 0.36 to 0.49†
Significant process safety events (Tier 1)	🟢	🟢	🟢	🟢	🟢	Significant process safety events (Tier 1) worsened from 0 to 1†
British Gas net promoter score (NPS)[1]	🔴	🔴	🟠	🔴	🟠	British Gas NPS improved from -3 to +2†
Direct Energy NPS[1]	🟢	🟢	🟢	🟢	🟢	Direct Energy NPS declined from +42 to +41†
Employee engagement[1]	🔴	🔴	🔴	🔴	🔴	Employee engagement improved from 62% favourable to 64%† favourable

[1] NPS and employee engagement measures disclosed on this page are part of the non-financial KPI dashboard used for the LTIP and are calculated using historical methodology and business areas which were set at the time that the Remuneration Policy was approved. They differ from the new NPS and employee engagement metrics referenced elsewhere in the Annual Report and Accounts 2018.

† We engaged PricewaterhouseCoopers LLP (PwC) to undertake a limited assurance engagement over 19 metrics, which are highlighted with the symbol '†' throughout the Annual Report and Accounts 2018. Further details are set out on page 238 in Responsible Business – Performance Measures or online.

Performance against the non-financial KPI dashboard during the three-year performance period resulted in 45% of the KPI portion of the 2016 LTIP award vesting.

Based on achievement against the LTIP performance conditions over the three-year performance period, as set out on page 97, the LTIP granted in 2016 will vest at a level of 18% of the award. The value of the shares initially granted under the 2016 award has fallen and as such represents an outcome of approximately 41% of salary (the final value will be established on the vesting date).

Pension

Iain Conn and Mark Hodges elected to receive salary supplements of 30% and 25% of base salary respectively, in lieu of participating in a Centrica pension plan. These salary supplements are included in the single figure for total remuneration table on page 94.

Jeff Bell was entitled to receive a salary supplement of 25% of base salary or participate in the CUPS DC scheme. As Mark Hanafin was an Executive prior to 2014, he was entitled to receive a salary supplement of 40% of base salary or participate in the CUPS DC scheme. During the year, they both participated in the CUPS DC scheme and received an unfunded promise equal to 25% and 40% of base salary respectively. The pension fund values in the table below for 2018, for both individuals, are as at the date they stepped down from the Board during the year.

Richard Hookway and Chris O'Shea were entitled to receive salary supplements of 20% of base salary or participate in the CUPS DC scheme. They both participated in the CUPS DC scheme from the dates they joined Centrica and received an unfunded promise equal to 20% of base salary.

Notional contributions to the CUPS DC scheme have been included in the single figure for total remuneration table as if it was a cash balance scheme and therefore notional investment returns for the year have been included. The notional pension fund balances for each Executive are disclosed below.

CUPS DC scheme[1]	**Total notional pension fund as at date Executive stepped down from Board in 2018 £**	Total notional pension fund as at 31 December 2017 £
Jeff Bell[2][3]	**448,634**	344,932
Mark Hanafin[3]	**1,529,175**	1,357,689

	Total notional pension fund as at 31 December 2018 £	Total notional pension fund as at 31 December 2017 £
Richard Hookway[4]	**20,000**	–
Chris O'Shea[4]	**38,233**	–

(1) The retirement age for the CUPS DC scheme is 62.

(2) The 2017 notional pension fund balance for Jeff Bell has been restated due to a minor reporting error in the 2017 disclosure.

(3) Jeff Bell stepped down from the Board on 31 October and Mark Hanafin stepped down from the Board on 30 November 2018.

(4) Richard Hookway joined Centrica on 1 November and Chris O'Shea joined on 10 September 2018.

Executive Director recruitment and terminations announced in 2018

Chris O'Shea

Chris O'Shea joined Centrica on 10 September and was appointed to the Board on 1 November 2018. His remuneration package consists of base salary, benefits and incentive arrangements that are in line with our Policy. There were no special recruitment arrangements or buy out awards as Chris was not in employment at the time our offer was made. The key elements of the remuneration package for Chris are:

Base salary – £620,000 per annum

Pension contribution of 20% of base salary

Participation in the AIP, initially on a pro-rata basis from the employment commencement date

An LTIP grant on joining, equal to 231% of base salary (a pro-rata award reflecting service during the 2018/20 LTIP performance period), vesting in 2021 and subject to the usual additional two-year holding period.

Richard Hookway

Richard Hookway joined Centrica on 1 November and was appointed to the Board on 1 December 2018. His remuneration package consists of base salary, benefits and incentive arrangements that are in line with our Policy. There are no special recruitment arrangements or buy out awards as Richard was not in employment at the time our offer was made. The key elements of the remuneration package for Richard are:

Base salary – £600,000 per annum

Pension contribution of 20% of base salary

Participation in the AIP, initially on a pro-rata basis from the employment commencement date

An LTIP grant on joining, equal to 217% of base salary (a pro-rata award reflecting service during the 2018/20 LTIP performance period), vesting in 2021 and subject to the usual additional two-year holding period.

Mark Hanafin

Mark Hanafin stepped down from the Board on 30 November 2018 and will retire from Centrica on 31 March 2019. He will be paid his normal salary and benefits until his retirement date and will not receive any payments in lieu of notice. Mark will be eligible for an award under the 2018 AIP but, having worked only three months of 2019, will not participate in the 2019 AIP nor the 2019 LTIP. In accordance with the plan rules for retirement, Mark's existing LTIP awards will be time apportioned for the element of the performance period worked, therefore 25% of the awards granted in 2017 and 58% of the awards granted in 2018 will lapse on his retirement. The balance of the LTIP awards will remain subject to the normal performance conditions and any vesting will be determined at the end of the performance measurement period.

Jeff Bell

Jeff Bell stepped down from the Board on 31 October 2018 and will leave Centrica at the end of his notice period on 31 July 2019. In order to affect a successful transition, it is planned that Jeff will work through his notice period and he will not, therefore, receive any payment in lieu of notice. He will be eligible for an award under the 2018 AIP and the 2019 AIP on a pro-rata basis. He will not be eligible to participate in the 2019 LTIP. All unvested LTIP awards at the point that Jeff leaves will lapse in full.

Mark Hodges

In December it was announced that Mark Hodges will resign from Centrica on 28 February 2019. He waived his right to receive contractual notice and he will not, therefore, receive any payment in lieu. His other remuneration arrangements will follow the Policy. Accordingly, Mark is not eligible for any further awards under the AIP, including for the 2018 performance year. In line with the plan rules, any existing AIP deferred shares will continue to be subject to the holding periods and will be released at the usual time with relevant malus and clawback provisions continuing to apply. All unvested LTIP awards at the point that Mark leaves will lapse in full.

Minimum shareholding requirement for new and departing Executives

Both Chris O'Shea and Richard Hookway will be expected to build up and maintain a minimum shareholding in the Company equivalent in value to 300% of base salary, over a period of five years. Mark Hanafin, Jeff Bell and Mark Hodges will be subject to a post-cessation shareholding requirement of 150% of base salary (or their actual holding if lower) for two years.

Directors' interests in shares (number of shares) (audited)

The table below shows the interests in the ordinary shares of the Company for all Directors on the Board during 2018. For Executives only, the minimum shareholding requirement is 300% of base salary. The achievement against the requirement is shown below.

Executives have a period of five years from appointment to the Board, or from any material change in the minimum shareholding requirement, to build up the required shareholding.

A post-cessation shareholding requirement of 50% of the full shareholding requirement (or full actual holding if lower) is applicable for two years post-cessation.

	Shares owned as at 31 December 2017[1]	**Shares owned as at 31 December 2018[1]**	Minimum shareholding guideline (% of salary)	**Achievement as at 31 December 2018 (% of salary)[2]**	**Shares owned (subject to continued service) as at 31 December 2018[3]**
Executives					
Iain Conn[4]	1,834,682	**1,896,978**	300	**272**	**506**
Mark Hodges	376,081	**486,175**	300	**103**	**792**
Richard Hookway	–	**–**	300	**0**	**–**
Chris O'Shea	–	**219,000**	300	**48**	**–**

	Shares owned as at 31 December 2017[1]	**Shares owned as at date Executive stepped down from Board[1]**	Minimum shareholding guideline (% of salary)	**Achievement as at date Executive stepped down from Board (% of salary)[2]**	**Shares owned (subject to continuous service) as at date Executive stepped down from Board[3]**
Executives					
Jeff Bell	510,720	**701,176**	300	**180**	**–**
Mark Hanafin[5]	782,250	**892,203**	300	**193**	**792**

	Shares owned as at 31 December 2017[1]	**Shares owned as at 31 December 2018[1]**	Minimum shareholding guideline (% of salary)	**Achievement as at 31 December 2018 (% of salary)**	**Shares owned (subject to continued service) as at 31 December 2018**
Non–Executives					
Richard Haythornthwaite	93,247	**95,221**	–	**–**	**–**
Charles Berry	–	**–**	–	**–**	**–**
Margherita Della Valle	52,672	**72,753**	–	**–**	**–**
Joan Gillman	–	**–**	–	**–**	**–**
Stephen Hester	20,700	**20,700**	–	**–**	**–**
Carlos Pascual	–	**–**	–	**–**	**–**
Steve Pusey	52,701	**65,917**	–	**–**	**–**
Scott Wheway	10,187	**10,187**	–	**–**	**–**

[1] These shares are owned by the Director or a connected person and they are not, save for exceptional circumstances, subject to continued service or the achievement of performance conditions. They include for Executives shares purchased in April 2016 and 2017 with deferred AIP funds which have mandatory holding periods of three and four years and which will be subject to tax at the end of the holding periods. For Jeff Bell and Mark Hanafin the position is as at the date they stepped down from the Board in 2018.

[2] The share price used to calculate the achievement against the guideline was 134.9 pence, the price on 31 December 2018. The achievement against the guideline for Jeff Bell and Mark Hanafin is as at the date they stepped down from the Board in 2018 using a share price of 147.2 and 137.75 pence respectively.

[3] Shares owned subject to continued service include SIP matching shares that have not yet been held for the three-year holding period.

[4] Following the release and allotment of shares in April 2019, after tax has been deducted, it is estimated that Iain Conn will hold shares with a value equal to 316% of salary.

[5] Mark Hanafin also holds 507,831 fully vested unexercised nil-cost options that are exercisable until March 2020, or for a period of 12 months following his leaving date.

Executives' interests in shares (number of shares) subject to Company performance conditions

The table below shows the performance share awards that were granted in 2016 and 2017 to Executives under the LTIP. These awards are subject to the achievement of Company performance conditions before vest and there is a mandatory two-year holding period following the vesting date before the shares can be released.

	Plan	Number of shares	Vesting date	Release date
Iain Conn	LTIP	1,221,498	April 2019	April 2021
	LTIP	1,270,953	April 2020	April 2022
Jeff Bell	LTIP	726,296	April 2019	April 2021
	LTIP	755,702	April 2020	April 2022
Mark Hanafin	LTIP	825,336	April 2019	April 2021
	LTIP	858,752	April 2020	April 2022
Mark Hodges	LTIP	825,336	April 2019	April 2021
	LTIP	858,752	April 2020	April 2022

Share awards granted in 2018 (audited)

The table below shows the performance share awards that were granted to Executives under the LTIP in 2018. These awards are subject to the achievement of Company performance conditions before vest and there is a mandatory two-year holding period following the vesting date before the shares can be released.

LTIP awards granted in 2018[1]

	Number of shares[2][3]	Value £000	Salary multiple	Vesting date	Release date
Iain Conn	1,700,803	2,350	250%	April 2021	April 2023
Jeff Bell	1,040,385	1,438	250%	April 2021	April 2023
Mark Hanafin	1,153,470	1,594	250%	April 2021	April 2023
Mark Hodges	1,153,470	1,594	250%	April 2021	April 2023
Richard Hookway	878,009	1,302	217%	November 2021	November 2023
Chris O'Shea	979,818	1,432	231%	September 2021	September 2023

[1] The performance conditions relating to these awards are set out below. The performance period is 1 January 2018 to 31 December 2020.

[2] The share price used to calculate the number of shares granted for Iain Conn, Jeff Bell, Mark Hanafin and Mark Hodges was 138.17p, being the average closing share price over five business days immediately preceding the grant date of 1 April 2018.

[3] The share prices used to calculate the number of shares granted for Chris O'Shea and Richard Hookway were 146.17p and 148.29p respectively, being the average closing share price over five business days immediately preceding the grant date.

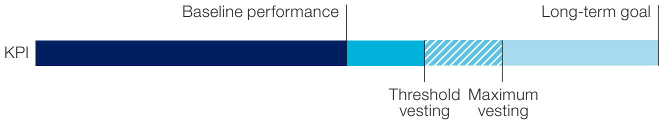
LTIP performance conditions

		Targets	
Measures	Weightings	Threshold (25%)	Maximum (100%)
Relative TSR	33.3%	FTSE 100 median	FTSE 100 upper quartile
UAOCF growth	22.2%	CAGR 2%[1]	CAGR 5%[1]
Absolute aggregate EP	22.2%	£1,625m	£2,125m
Non-financial KPI improvement	22.2%	See below	See below

[1] Compound annual growth rate.

Vesting between stated points will be on a straight-line basis.

KPI improvement relates to closure of the gap between performance at the start of the period (baseline performance) and our long-term aspirational goals which are generally aligned with upper quartile market performance:



For each LTIP cycle we expect the KPI performance gap to close by 25% for threshold vesting and 50% for maximum vesting. The KPI measures and targets for the 2018/20 cycle are:

		Targets		
	Baseline performance	Threshold	Maximum	Long-term goal
Safety				
Total recordable injury frequency rate (TRIFR)[1]	**0.98**	0.80	0.45	0.25
Tier 1 and Tier 2 process safety event frequency rate[1]	**0.14**	0.13	0.12	0.1
Customer satisfaction Aggregate brand NPS across our customer businesses weighted by customer numbers	**+9.4**	+12.05	+14.70	+20
Complaints per 100,000 customers across our customer businesses weighted by customer accounts	**3,739**	3,284	2,815	1,877
Employee engagement	**52**	58.25	64.50	77

[1] Per 200,000 hours worked.

Percentage change in Group Chief Executive's remuneration compared with other employees

The table below shows the percentage change in base salary, taxable benefits and bonus (annual incentive) payments between 2017 and 2018 for Iain Conn, compared with a comparator group of UK employees, over the same period of time.

Change in Group Chief Executive's remuneration	Change in employee remuneration
Salary and fees ↑ **0.43%**	Salary and fees ↑ **2.63%**
Taxable benefits ↑ **3.33%**	Taxable benefits → **0.00%**
Annual incentive ↑ **100%**	Annual incentive ↑ **21.94%**

The percentage change in annual incentive for Iain Conn between 2018 and 2017 relates to the fact that he did not receive a bonus payment for the 2017 performance year.

The comparator group includes management and technical or specialist employees based in the UK in Level 2 to Level 6 (where Level 1 is the Group Chief Executive). The employees selected have been employed in their role throughout 2017 and 2018 to give a meaningful comparison. The group has been chosen as the employees have a remuneration package with a similar structure to the Group Chief Executive, including base salary, benefits and annual bonus.

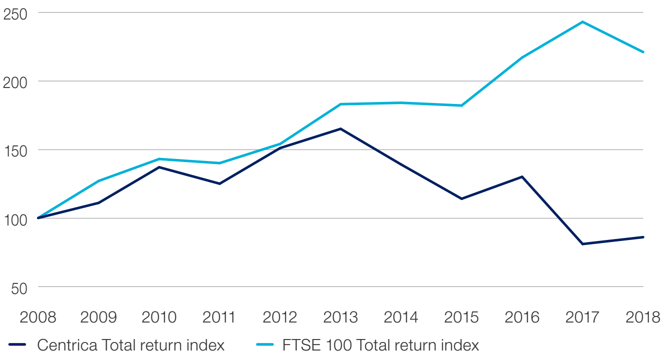
Pay for performance

The table below shows the Group Chief Executive's total remuneration over the last ten years and the achieved annual short-term and long-term incentive pay awards as a percentage of the plan maximum.

	Group Chief Executive single figure for total remuneration £000	Annual short-term incentive payout against max opportunity %	Long-term incentive vesting against max opportunity %
Iain Conn			
2018	2,416	41	18
2017	1,678	0	26
2016	4,040	82	0
2015	3,025	63	0
Sam Laidlaw			
2014	3,272	34	35
2013	2,235	50	0
2012	5,709	61	67
2011	5,047	50	59
2010	5,322	91	62
2009	4,627	92	73

The performance graph below shows Centrica's TSR performance against the performance of the FTSE 100 Index over the ten-year period to 31 December 2018. The FTSE 100 Index has been chosen as it is an index of similar sized companies and Centrica has been a constituent member throughout the period.

Total return indices – Centrica and FTSE 100



Source: Thomson Reuters Datastream

Fees received for external appointments of Executive Directors

In 2018, Iain Conn received £124,000 (£121,000 in 2017) as a non-executive director of BT Group plc.

Mark Hanafin represents Centrica as a non-executive director of EDF Energy Nuclear Generation Group Limited and Mark Hodges represents Centrica as a director of Energy UK. Neither Executive receives any fees or remuneration relating to these external appointments.

Relative importance of spend on pay

The following table sets out the amounts paid in dividends and staff and employee costs for the years ended 31 December 2017 and 2018.

	2018 £m	2017 £m	% Change
Dividends	**551**	463	19%
Staff and employee costs[1]	**1,979**	1,998	-1%

[1] Staff and employee costs are as per note 5 in the Notes to the Financial Statements.

Payments to past Directors (audited)

During 2018, no payments were made to past Directors with the exception of the payments disclosed in the single figure for total remuneration table on page 94.

Funding of share schemes in 2018

During 2018, market purchased shares, held in an employee benefits trust, were used to satisfy outstanding allocations under the DMSS (deferred and investment shares), the Long Term Incentive Scheme (LTIS) 2014, the Restricted Share Scheme and the On Track Incentive Plan (conditional share plans for Centrica employees below the executive level). Treasury shares were used to satisfy the release of awards or the exercise of options under the DMSS, the LTIS, the On Track Incentive Plan and Centrica's all-employee share plans. At 31 December 2018, 31,277,124 shares were held in treasury (2017: 42,060,842), following the share repurchase programme throughout 2013 and 2014.

Advice to the Remuneration Committee

Following a competitive tender process, PwC was appointed as independent external adviser to the Committee in May 2017.

PwC also provided advice to Centrica globally during 2018 in the areas of employment taxes, regulatory risk and compliance issues and additional consultancy services.

PwC's fees for advice to the Committee during 2018 amounted to £106,650 which included the preparation for and attendance at Committee meetings. The fees were charged on a time spent basis in delivering advice that materially assisted the Committee in their consideration of matters relating to executive remuneration.

The Committee takes into account the Remuneration Consultants Group's (RCG) Code of Conduct when dealing with its advisers. PwC is a member of the RCG and the Committee is satisfied that the advice it received during the year was objective and independent and that the provision of any other services by PwC in no way compromises their independence.

Statement of voting

Shareholder voting on the resolutions to approve the Directors' Remuneration Policy and the Directors' Remuneration Report, put to the 2018 AGM, was as follows:

Directors' Remuneration Policy

Votes for	%	Votes against	%
3,378,407,618	95.43	161,656,874	4.57

1,705,945 votes were withheld.

Directors' Remuneration Report

Votes for	%	Votes against	%
3,367,665,342	95.26	167,555,153	4.74

6,546,927 votes were withheld.

Implementation in the next financial year

Base salaries for Executives were reviewed in January 2019 and the Committee determined that the salary for Iain Conn would be increased by 1.9% to £957,500 with effect from 1 April 2019. As all other Executives were new in post or were leaving the Company during the year, there were no other salary increases for existing Executives.

The CEC reviewed Non-Executive Director fee levels in December 2018 and it was agreed that no changes would be made.

As disclosed on page 91 it was agreed that the pension contributions for existing Executives would reduce to a maximum of 15% with effect from 1 June 2019 to move towards alignment with the wider UK workforce.

No changes to benefits for Executives are anticipated.

AIP awards will be in line with the limits set out in the Remuneration Policy table, not exceeding 200% of base salary. 75% of the award will be based on a mix of financial measures based on Centrica's priorities for the forthcoming year and 25% will be based on personal objectives.

For the operation of the AIP in 2019, 20% of the financial measures will be based on cost efficiency, 40% of the financial measures will be based on adjusted operating cash flow (AOCF) and 40% of the financial measures will be based on operating profit, with targets aligning to the Group Annual Plan. The targets are considered commercially sensitive until the year end and will therefore be disclosed retrospectively in the Remuneration Report for 2019.

LTIP awards will be granted in line with the limits set out in the Remuneration Policy. The performance measures will consist of relative total shareholder return (TSR) with a weighting of 33.3%, underlying adjusted operating cash flow (UAOCF) growth with a weighting of 22.2%, economic profit (EP) with a weighting of 22.2% and non-financial KPIs with a weighting of 22.2%.

It is proposed that the following financial targets will apply to the 2019 LTIP awards:

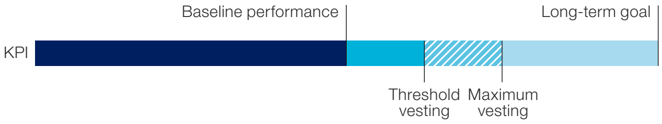
LTIP performance conditions

		Targets	
Measures	Weightings	Threshold (25%)	Maximum (100%)
Relative TSR	33.3%	FTSE 100 median	FTSE 100 upper quartile
UAOCF growth	22.2%	CAGR 2%[1]	CAGR 5%[1]
Absolute aggregate EP	22.2%	£1,625m	£2,125m
Non-financial KPI improvement	22.2%	See below	See below

[1] Compound annual growth rate.

Vesting between stated points will be on a straight-line basis.

KPI improvement relates to closure of the gap between performance at the start of the period (current performance) and our long-term aspirational goals which are generally aligned with upper quartile market performance:



For each LTIP cycle we expect the KPI performance gap to close by 25% for threshold vesting and 50% for maximum vesting. In 2018, performance against the Tier 1 and Tier 2 process safety event frequency rate had exceeded the long-term goal. However, this was due to a set of circumstances that called into question the sustainability of this result. Therefore, for the performance period 2019/21, threshold performance has been set at a level equivalent to the maximum for the previous year's target and maximum vesting will occur if the long-term goal is achieved.

The KPI measures and targets are:

		Targets		
	Current performance	Threshold	Maximum	Long-term goal
Safety				
Total recordable injury frequency rate (TRIFR)[1]	**1.02†**	0.83	0.45	0.25
Tier 1 and Tier 2 process safety event frequency rate[1]	**0.06†**	0.12	0.1	0.1
Customer satisfaction Aggregate brand NPS across our customer businesses weighted by customer numbers	**+10†**	+12.50	+15	+20
Complaints per 100,000 customers across our customer businesses weighted by customer accounts	**3,453**	3,059	2,665	1,877
Employee engagement	**55†**	60.5	66.0	77

[1] Per 200,000 hours worked.

Changes since 1 January 2019

Share Incentive Plan (SIP)

During the period from 1 January 2019 to 20 February 2019 Iain Conn, Mark Hodges, Richard Hookway and Chris O'Shea each acquired 265 shares through the SIP.

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

Grant Dawson
Group General Counsel & Company Secretary
20 February 2019

Remuneration Policy

Set out over the following pages is a summary of the Remuneration Policy (Policy) that was approved by shareholders on 14 May 2018. The full Policy can be found at centrica.com

Executive Directors' remuneration

The Committee believes that the remuneration arrangements are aligned with the organisation's strategic goals as well as the experience and expectation of shareholders.

The Policy closely aligns the interests of the Executive Directors (Executives) with the delivery of long-term shareholder value through returns and growth whilst ensuring behaviours remain consistent with the governance and values of the business.

Objectives

The Policy aims to deliver remuneration arrangements that:

- attract and retain high calibre Executives in a challenging and competitive global business environment;
- place strong emphasis on both short-term and long-term performance;
- are strongly aligned to the achievement of strategic objectives and the delivery of sustainable long-term shareholder value through returns and growth; and
- seek to avoid creating excessive risks in the achievement of performance targets.

Remuneration framework

The design of the remuneration framework for Executives ensures that a substantial portion of the maximum opportunity is dependent upon performance and delivered in shares over a three to five year period.

Total remuneration comprises fixed pay and variable performance-related pay, which is further divided into short-term incentive (with a one-year performance period) and long-term incentive (with a three-year performance period).

Fixed remuneration includes base salary, benefits and pension. Short-term incentive is delivered through the Annual Incentive Plan (AIP) which is described on page 105. Long-term incentive is delivered through the Long Term Incentive Plan (LTIP) which is described on page 106. Both plans are underpinned by stretching performance measures and targets that closely link to our strategy.

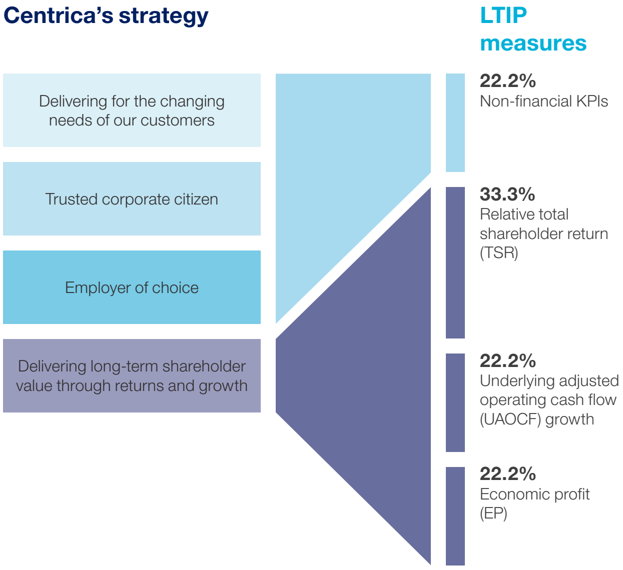
Performance measures

The Committee believes that the performance measures selected will help drive our customer-focused strategy, allowing us to deliver for our customers, our employees and our shareholders.

How the LTIP measures link to our strategy

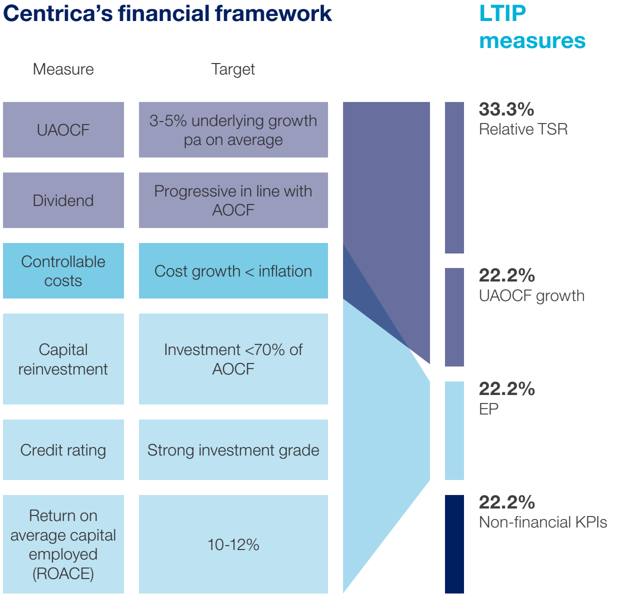
The chart below shows our strategy linked to the LTIP measures. Our strategy is set out in more detail on pages 14 and 15.

Centrica's strategy


LTIP measures
Delivering for the changing needs of our customers
Trusted corporate citizen
Employer of choice
Delivering long-term shareholder value through returns and growth
22.2% Non-financial KPIs
33.3% Relative total shareholder return (TSR)
22.2% Underlying adjusted operating cash flow (UAOCF) growth
22.2% Economic profit (EP)

The chart below shows our long-term financial goals linked to the LTIP measures. Our financial goals are set out in more detail on page 17.

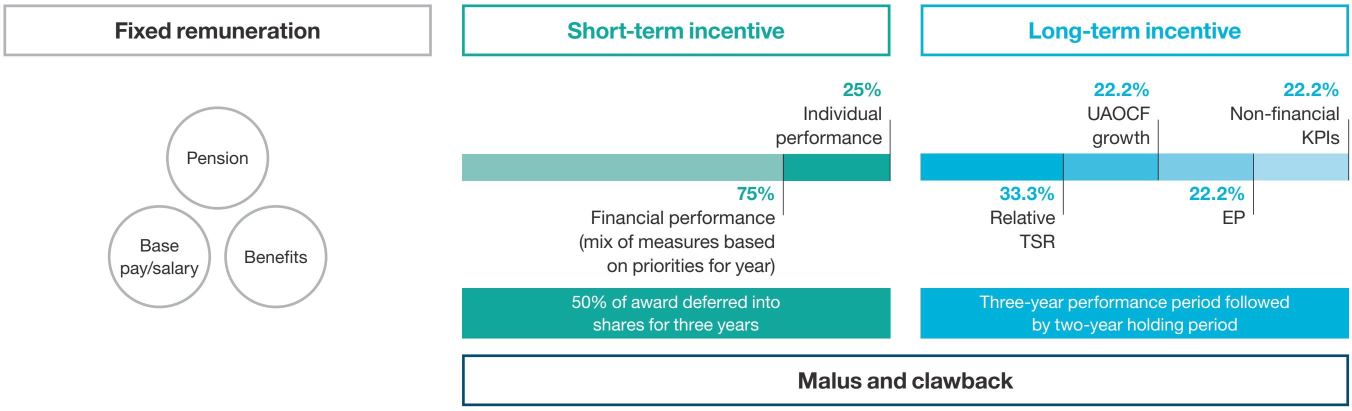
Centrica's financial framework



Measure	Target
UAOCF	3-5% underlying growth pa on average
Dividend	Progressive in line with AOCF
Controllable costs	Cost growth < inflation
Capital reinvestment	Investment <70% of AOCF
Credit rating	Strong investment grade
Return on average capital employed (ROACE)	10-12%

LTIP measures
33.3% Relative TSR
22.2% UAOCF growth
22.2% EP
22.2% Non-financial KPIs

Summary of Policy design



Fixed remuneration

Pension

Base pay/salary

Benefits

Short-term incentive

25% Individual performance

75% Financial performance (mix of measures based on priorities for year)

50% of award deferred into shares for three years

Long-term incentive

22.2% UAOCF growth

22.2% Non-financial KPIs

33.3% Relative TSR

22.2% EP

Three-year performance period followed by two-year holding period

Malus and clawback

Remuneration Policy table

The table below sets out the separate components of the Policy that applies to Executives.

Purpose and link to strategy	Operation and clawback	Maximum opportunity	Performance measures
Base pay/salary Reflects the scope and responsibility of the role and the skills and experience of the individual. Salaries are set at a level sufficient for the Group to compete for international talent and to attract and retain Executives of the calibre required to develop and deliver our strategy.	Base salaries are reviewed annually, taking into account individual and business performance, market conditions and pay in the Group as a whole. Changes are usually effective from 1 April each year.	Ordinarily, base salary increases in percentage terms will be in line with increases awarded to other employees of the Group. Increases may be made above this level to take account of individual circumstances such as a change in responsibility, progression/development in the role or a significant increase in the scale or size of the role. The base salary for an Executive will not exceed £1 million per annum. This is consistent with the previously approved policy.	Not applicable.
Short-term incentive plan Designed to incentivise and reward the annual performance of individuals and teams in the delivery of short-term financial and non-financial metrics. Performance measures are linked to the delivery of the Group's long-term financial goals and key Group priorities.	In line with the Group's annual performance management process, each Executive has an agreed set of stretching individual objectives each year. Following measurement of the individual and company financial performance outcome Annual Incentive Plan (AIP) awards are made. Half of the AIP award is paid in cash. The other half is required to be deferred into shares which are held for three years, to further align the interests of Executives with the long-term interests of shareholders. Dividends are payable on the shares during the holding period. If overall business performance is not deemed satisfactory, an individual's AIP payment for the year may be reduced or forfeited, at the discretion of the Committee. Malus and clawback apply to the cash and share awards (see policy table notes).	Maximum of 200% of base salary. Half the maximum is payable for on-target performance. This is consistent with the previously approved policy.	75% based on a mix of financial performance measures aligned to Centrica's priorities for the forthcoming year and 25% based on individual objectives aligned to the Group's priorities and strategy. Under the previously approved policy, 62.5% was based on adjusted operating cash flow and 37.5% was based on individual objectives. Performance is assessed over one financial year.

Purpose and link to strategy	Operation and clawback	Maximum opportunity	Performance measures
Long-term incentive plan Designed to retain Executives and to encourage sustainable high performance. Provides an incentive that aligns with the Group's strategy to deliver long-term shareholder value through returns and growth. Provides a direct link between executive remuneration and the Group's long-term financial goals and priorities.	Long Term Incentive Plan (LTIP) awards are granted to Executives each year based on a percentage of base salary at the point of award. Shares vest at the end of a three-year performance period, depending on the achievement against the performance targets, but are not released until the fifth anniversary of the award date. LTIP awards are usually delivered as conditional shares. Awards may also be granted as nil-cost options with a seven-year exercise period. It is a requirement of the LTIP that the net shares are held for a further two years following the vesting date. Malus applies to the shares during the three-year performance period and clawback applies to the shares during the two-year holding period (see policy table notes). Dividend equivalents are calculated at the end of the performance period on any conditional LTIP share awards or nil-cost options. Dividend equivalents are paid as additional shares or as cash. If overall performance is not deemed satisfactory, the award for any year may be reduced or forfeited, at the discretion of the Committee.	Maximum of 300% of base salary plus dividend equivalents. This is consistent with the previously approved policy. The amount payable for achieving the minimum level of performance is 5.55% of award. Under the previously approved policy, the minimum level was 0%.	33.3% based on relative total shareholder return (TSR) with the remainder equally weighted and based on underlying adjusted operating cash flow (UAOCF) growth, absolute aggregate economic profit (EP) and non-financial KPIs, all measured over a three-year performance period. Under the previously approved policy, performance measures were equally weighted and based on earnings per share (EPS), absolute aggregate EP and non-financial KPIs, measured over a three-year performance period.
Pension Positioned to provide a market-competitive post-retirement benefit, in a way that manages the overall cost to the Company.	Executives are entitled to participate in a Company money purchase pension arrangement or to take a fixed salary supplement (calculated as a percentage of base salary, which is excluded from any bonus calculation) in lieu of pension entitlement. The Group's policy is not to offer defined benefit arrangements to new employees at any level, unless this is specifically required by applicable legislation or an existing contractual agreement.	For newly recruited Executives the maximum benefit is 25% of base salary. For existing Executives appointed between 2015 and 2017, the maximum benefit is 30% of base salary for the Group Chief Executive and 25% of base salary for all other Executives.	Not applicable.

Purpose and link to strategy	Operation and clawback	Maximum opportunity	Performance measures
	Executives appointed prior to 2015 are entitled to participate in a Centrica pension arrangement or to receive a fixed salary supplement in lieu of pension entitlement in accordance with the terms of their contracts. We would only continue to honour defined benefit pension arrangements in the event of an individual being promoted to the Board who retains a contractual entitlement to such benefit. In late 2018, it was agreed that the pension contributions for existing Executives would reduce to a maximum of 15% with effect from 1 June 2019 to move towards alignment with the wider UK workforce.	For Executives appointed prior to 2015, the maximum benefit is 40% of base salary.	Not applicable.
Benefits Positioned to support health and wellbeing and to provide a competitive package of benefits that is aligned with market practice.	The Group offers Executives a range of benefits including some or all of: • a company-provided car and fuel, or a cash allowance in lieu; • life assurance and personal accident insurance; • health and medical insurance for the Executive and their dependants; • health screening and wellbeing services; and • a contribution towards financial planning advice.	Cash allowance in lieu of company car – £22,000 per annum. The benefit in kind value of other benefits will not exceed 5% of base salary. This is consistent with the previously approved policy.	Not applicable.
Relocation and expatriate assistance Enable the Group to recruit or promote the appropriate individual into a role, to retain key skills and to provide career opportunities.	Assistance may include (but is not limited to) removal and other relocation costs, housing or temporary accommodation, education, home leave, repatriation and tax equalisation.	Maximum of 100% of base salary. This is consistent with the previously approved policy.	Not applicable.
All-employee share plans Provide an opportunity for employees to voluntarily invest in the Company.	Executives are entitled to participate in all-employee share plans on the same terms as all other eligible employees.	Maximum contribution limits are set by legislation or by the rules of each plan. Levels of participation apply equally to all participants. This is consistent with the previously approved policy.	Not applicable.

Policy table notes

The Committee reserves the right to make any remuneration payments and payments for loss of office, notwithstanding that they are not in line with the summary Policy set out above, where the terms of the payment were agreed before the Policy came into effect, at a time when the relevant individual was not an Executive of the Company or, in the opinion of the Committee, the payment was not in consideration for the individual becoming an Executive of the Company. For these purposes payments include the amounts paid in order to satisfy awards of variable remuneration and, in relation to an award over shares, the terms of the payment are agreed at the time the award is granted.

The Committee may make minor amendments to the Policy (for regulatory, exchange control, tax or administrative purposes or to take account of a change in legislation) without obtaining shareholder approval for that amendment.

Performance measures

We continue to be committed to full transparency and disclosure. We will disclose all targets as soon as any commercial sensitivity falls away. At the latest, this will be at the end of the performance period.

Relative total shareholder return (TSR)

Compares Centrica's TSR (share price growth plus dividends) for the performance period with the TSR ranking of the other companies in the FTSE 100 Index.

The FTSE 100 Index has been chosen as it is a broad equity index of which Centrica is a constituent member and it reflects the investment interests of our UK shareholder base.

Underlying adjusted operating cash flow (UAOCF) growth

Growth in net cash flow from operating activities (which includes taxes paid) adjusted to include dividends received from joint ventures and associates and to exclude payments relating to exceptional items, UK defined benefit pension deficit contributions and movements in variation margin and cash collateral that are included in net debt.

This is adjusted for the impact of commodity price movements in Exploration & Production/nuclear, foreign exchange movements and any material one-off working capital items to give a measure of underlying growth.

Economic profit (EP)

EP is adjusted operating profit (after share of joint venture interest) less a tax charge based on the tax rate relevant to the different business segments and after deduction of a capital charge. The capital charge is calculated as capital employed multiplied by the Group's weighted average cost of capital.

Further details of these performance measures are provided in notes 2, 4 and 10 of the Financial Statements, in the Annual Report and Accounts 2018. In addition, see page 236 for an explanation of UAOCF.

Non-financial KPIs

Based on the Group's non-financial KPIs, using three-year targets for improvement.

Malus and clawback

The Committee can apply malus (that is reduce the number of shares in respect of which an award vests) or delay the vesting of awards if it considers it appropriate where a participant has engaged in gross misconduct or displayed inappropriate management behaviour which fails to reflect the governance and values of the business or where the results for any period have been restated or appear inaccurate or misleading.

Where an award has vested, the resulting shares will generally be held for a period during which they may be subject to clawback in the event that the Committee determines that one or more of the circumstances above has occurred.

Pension arrangements applying to Executives

Centrica Unfunded Pension Scheme (CUPS)

All registered scheme benefits are subject to HMRC guidelines and the Lifetime Allowance.

The CUPS defined contribution (DC) section provides benefits for individuals not eligible to join the CUPS defined benefit (DB) section and for whom registered scheme benefits are expected to exceed the Lifetime Allowance. The CUPS DC section is offered as a direct alternative to a cash salary supplement.

The CUPS DB section was closed to new members in October 2002.

CUPS is unfunded but the benefits are secured by a charge over certain Centrica assets. An appropriate provision in respect of the accrued value of these benefits has been made in the Company's balance sheet.

Non-Executive Directors' remuneration

Remuneration Policy

Centrica's policy on Non-Executive Directors' (Non-Executives) fees takes into account the need to attract the high calibre individuals required to support the delivery of our strategy.

Terms of appointment

Non-Executives, including the Chairman, do not have service contracts. Their appointments are subject to Letters of Appointment and the Articles of Association. All Non-Executives are required to be re-elected at each AGM.

Remuneration Policy table

Purpose and link to strategy	Operation and clawback	Maximum opportunity	Performance measures
Chairman and Non-Executive Director fees Sufficient level to secure the services of individuals possessing the skills, knowledge and experience to support and oversee the Executive Directors in their execution of the Board's approved strategies and operational plans. Fees reflect market practice as well as the responsibilities and time commitment required by our Non-Executives.	The fee levels for the Chairman are reviewed every two years by the Remuneration Committee. The fee levels of the Non-Executives are reviewed every two years by the Executive Committee. Non-Executives are paid a base fee for their services. Where individuals serve as Chairman of a Committee of the Board, additional fees are payable. The Senior Independent Director also receives an additional fee. **Current fee levels (applying from 1 January 2016)** Chairman of the Board – up to £495,000 per annum. Base fee for Non-Executives – £72,500 per annum. The following additional fees apply: • Chairman of Audit Committee – £25,000 per annum; • Chairman of Remuneration Committee – £20,000 per annum; • Chairman of Safety, Health, Environment, Security and Ethics Committee – £20,000 per annum; and • Senior Independent Director – £20,000 per annum. The Company reserves the right to pay a Committee membership fee in addition to the base fees. Non-Executives are able to use 50% of their fees, after appropriate payroll withholdings, to purchase Centrica shares. Dealing commission and stamp duty is paid by the Non-Executive. The Non-Executives, including the Chairman, do not participate in any of the Company's share schemes, incentive plans or pension schemes. Non-Executives will be reimbursed for business expenses relating to the performance of their duties including travel, accommodation and subsistence. In certain circumstances these, or other incidental items, may be considered a 'benefit in kind' and if so may be grossed up for any tax due.	The maximum level of fees payable to Non-Executives, in aggregate, is set out in the Articles of Association.	Not applicable.

Recruitment policy

The policy on the recruitment of new Non-Executives during the policy period would be to apply the same remuneration elements as for the existing Non-Executives. It is not intended that variable pay, day rates or benefits in kind be offered, although in exceptional circumstances such remuneration may be required in currently unforeseen circumstances. The Committee will include in future Remuneration Reports details of the implementation of the policy as utilised during the policy period in respect of any such recruitment to the Board.

Directors’ and Corporate Governance Report – Other Statutory Information

The Directors submit their Annual Report and Accounts for Centrica plc, together with the consolidated Financial Statements of the Centrica group of companies, for the year ended 31 December 2018. The directors’ report required under the Companies Act 2006 (the Act) comprises this Directors’ and Corporate Governance Report (pages 66 to 112), including the Remuneration Report (pages 90 to 109) and the Delivering our Responsible Business Ambitions section for disclosure of our carbon emissions in the Strategic Report (pages 60 to 61). The management report required under Disclosure and Transparency Rule 4.1.5R comprises the Strategic Report (pages 2 to 65) (which includes the risks relating to our business), Shareholder Information (page 234) and details of acquisitions and disposals made by the Group during the year in note 12 (page 153). This Directors’ and Corporate Governance Report fulfils the requirements of the corporate governance statement required under Disclosure & Transparency Rule 7.2.1.

Articles of Association (Articles)

The Company’s Articles were adopted at the 2010 AGM and were amended at the 2016 AGM. They may only be amended by a special resolution of the shareholders. The Company proposes to put amended Articles to its Shareholders at the 2019 AGM. Further information on the changes can be found in the 2019 Notice of Meeting (centrica.com/agm19).

Centrica shares

Substantial shareholdings

At 31 December 2018, Centrica had received notification of the following material shareholdings pursuant to the Disclosure & Transparency Rules:

	% of share capital[1]
BlackRock, Inc.	6.05
Schroders Investment Management Limited	5.72
Majedie Asset Management Limited	4.99
Newton Investment Management Limited	4.99

[1] Percentages are shown as a percentage of the Company’s issued share capital when the Company was notified of the change in holding. As at 20 February 2019, there were no changes in the details shown in the above table.

Share capital

The Company has a single share class which is divided into ordinary shares of $6\tfrac{14}{81}$ pence each. The Company was authorised at the 2018 AGM to allot up to 1,867,048,825 ordinary shares as permitted by the Act. A renewal of this authority will be proposed at the 2019 AGM. The Company’s issued share capital as at 31 December 2018, together with details of shares issued during the year, is set out in note 25 to the Financial Statements.

Rights attaching to shares

Each ordinary share of the Company carries one vote. Further information on the voting and other rights of shareholders is set out in the Articles and in explanatory notes which accompany notices of general meetings, all of which are available on our website.

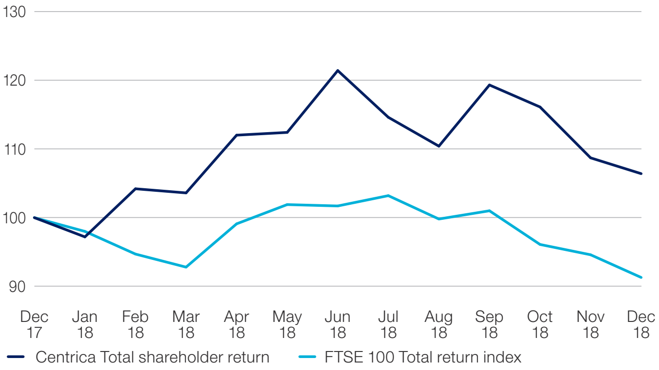
Repurchase of shares

As permitted by the Articles, the Company obtained shareholder authority at the 2018 AGM to purchase its own shares up to a maximum of 560,114,648 ordinary shares. No shares were purchased under this authority in 2018.

As at 31 December 2018, 31,277,124 shares were held as treasury shares. These shares held in treasury represent 0.55% of the Company’s issued share capital. Dividends are waived in respect of shares held in the treasury share account.

Total shareholder return

Total shareholder return is a valuable key performance indicator to assess the Company’s performance in the delivery of shareholder value. During the year under review, Centrica has outperformed the FTSE 100 Index by 15.1%.



Source: Bloomberg

Shares held in employee benefit trusts

The Centrica plc Employee Benefit Trust (EBT) is used to purchase shares on behalf of the Company for the benefit of employees, in connection with the Deferred and Matching Share Scheme, and the Restricted Share Scheme. The Centrica plc Share Incentive Plan Trust (SIP Trust) is used to purchase shares on behalf of the Company for the benefit of employees, in connection with the SIP. Both the Trustees of the EBT and the SIP Trust, in accordance with best practice, have agreed not to vote any unallocated shares held in the EBT or SIP Trust at any general meeting and dividends are waived in respect of these shares. In respect of allocated shares in both the EBT and the SIP Trust, the Trustees shall vote in accordance with participants’ instructions. In the absence of any instruction, the Trustees shall not vote.

Index to Directors' Report and other disclosures

79	AGM
110	Articles of Association
114	Audit Information
68	Board of Directors
16	Business Model
75	Conflicts of Interest
111	Directors' indemnities and insurance
68	Directors' service contracts and letters of appointment
100	Directors' share interests
110	Disclosure required under Listing Rule 9.8.4R
62	Diversity
Note 11 page 152	Dividends
Note 26 page 174	Events after the balance sheet date
Notes 19, S2 and S6 on pages 162, 184 and 195	Financial instruments
2 to 65	Future developments
60 to 61	Carbon emissions
111	Human rights
81	Internal control over financial reporting
110	Material shareholdings
62	People
111	Political donations and expenditure
Note S8 page 199	Related party transactions
2	Results
41	Risk Management
110	Share capital
56	Sustainability

Employee participation in share schemes

The Company's all-employee share schemes are a long-established and successful part of our total reward package, encouraging and supporting employee share ownership. We offer tax-advantaged Sharesave (SAYE) schemes in the UK and Ireland, and a Share Incentive Plan (SIP) in the UK, with good levels of take-up for all share plans across the Group. Currently, 44% of eligible employees participate in Sharesave, 33% of eligible employees participate in the SIP.

Workforce

Directors' indemnities and insurance

In accordance with the Articles, the Company has granted a deed of indemnity, to the extent permitted by law, to Directors and members of the Executive Committee. Qualifying third-party indemnity provisions (as defined by section 234 of the Act) were in force during the year ended 31 December 2018 and remain in force. The Company also maintains directors' and officers' liability insurance for its Directors and officers.

Employee involvement

We remain committed to employee involvement throughout the business. Employees are kept well informed of the performance and strategy of the Group through personal briefings, regular meetings, email and broadcasts by the Group Chief Executive and members of the Board at key points in the year.

Equal opportunities

The Group is committed to an active equal opportunities policy from recruitment and selection, through training and development, performance reviews and promotion to retirement. It is our policy to promote an environment free from discrimination, harassment and victimisation, where everyone receives equal treatment regardless of gender, colour, ethnic or national origin, disability, age, marital status, sexual orientation or religion. All decisions relating to employment practices will be objective, free from bias and based solely upon work criteria and individual merit.

Employees with disabilities

It is our policy that people with disabilities should have full and fair consideration for all vacancies. During the year we continued to demonstrate our commitment to interviewing those people with disabilities who fulfil the minimum criteria and we endeavour to retain employees in the workforce if they become disabled during employment. This commitment was recognised in January 2018 by our achievement of level 1 Disability Confident Status and in 2017 we launched a Disability and Wellbeing Network to help employees impacted by disability to access the support they need to thrive at work.

Human rights

As an international company we have a responsibility and are committed to uphold and protect the human rights of individuals working for us in the communities and societies where we operate. We take steps to ensure that our people working in countries with a high risk to human rights are safeguarded, as set out in Our Code. We also recognise the opportunity we have to contribute positively to global efforts to ensure human rights are understood and observed.

Other Information

Political donations

Centrica operates on a politically neutral basis. No political donations were made by the Group for political purposes during the year. However, in accordance with the United States Federal Election Campaign Act, a Political Action Committee (PAC) called Direct Energy Employee Political Action Committee (DEEPAC) was formed to facilitate voluntary political contributions by its US employees. DEEPAC is controlled by neither Centrica nor Direct Energy but instead by a governing board of individual employee members of DEEPAC on a voluntary basis. Direct Energy, as authorised by law, has provided limited administrative support to DEEPAC. DEEPAC has been organised to provide a vehicle to dispense voluntary contributions from eligible employees. Participation in DEEPAC is entirely voluntary for eligible employees, and political donations from DEEPAC are determined by a governing board of DEEPAC members. In 2018, contributions to DEEPAC by employees amounted to $53,682.50, and DEEPAC made 153 political donations totalling $105,700.

Significant agreements – change of control

There are a number of agreements to which the Company is party that take effect, alter or terminate upon a change of control of the Company following a takeover bid. The significant agreements of this kind relate to 2009, when Centrica entered into certain transactions with EDF Group in relation to an investment in the former British Energy Group, which owned and operated a fleet of nuclear power stations in the UK. The transactions include rights for EDF Group and Centrica to offtake power from these nuclear power stations. As part of the arrangements, on a change of control of Centrica, the Group loses its right to participate on the boards of the companies in which it has invested. Furthermore, where the acquirer is not located in certain specified countries, EDF Group is able to require Centrica to sell out its investments to EDF Group.

Payments policy

We recognise the importance of good supplier relationships to the overall success of our business. We manage dealings with suppliers in a fair, consistent and transparent manner.

Disclosures required under Listing Rule 9.8.4R

The Company is required to disclose certain information under Listing Rule 9.8.4R in the Directors' Report or advise where such relevant information is contained. All such disclosures are included in this Directors and Corporate Governance Report, other than the following sections of the Annual Report and Accounts 2018:

Information	Location in Annual Report	Page(s)
Directors' compensation	Remuneration Report	90 to 109
Capitalised interest (borrowing costs)	Financial Statements	148, note 8
Details of long-term incentive schemes	Remuneration Report	106

Directors Statements

Going concern

Accounting standards require that Directors satisfy themselves that it is reasonable for them to conclude whether it is appropriate to prepare the Financial Statements on a going concern basis. The Group's business activities, together with factors that are likely to affect its future development and position, are set out in the Group Chief Executive's statement on pages 8 to 13 and the Business Reviews on pages 20 to 27. After making enquiries, the Board has a reasonable expectation that Centrica plc and the Group as a whole have adequate resources to continue in operational existence for the foreseeable future. For this reason, the Board continues to adopt the going concern basis in preparing the Financial Statements. Further details of the Group's liquidity position are provided in notes 24 and S3 to the Financial Statements.

Directors' responsibilities statement

The Directors, who are named on pages 68 to 70, are responsible for preparing the Annual Report, the Remuneration Report, the Strategic Report and the Financial Statements in accordance with applicable law and regulations.

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

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether IFRS as adopted by the EU and applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the Group and Company Financial Statements respectively; 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 Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and the Group and enable them to ensure that the Financial Statements and the Remuneration Report comply with the Act and, as regards the Group Financial Statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

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

The Directors consider that the Annual Report and Accounts 2018, when 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.

Each of the Directors confirms that to the best of their knowledge:

- the Group Financial Statements, which have been prepared in accordance with IFRS as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group;
- the Strategic Report contained on pages 2 to 65 together with the Directors' and Corporate Governance Report on pages 66 to 112, includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces;
- as outlined on page 82, there is no relevant audit information of which Deloitte LLP are unaware; and
- they have taken all the steps that they ought to have taken as a Director in order to make themselves aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

By order of the Board

Grant Dawson
Group General Counsel & Company Secretary
20 February 2019

Financial Statements

Contents

114 Independent Auditor’s Report
124 Group Income Statement
125 Group Statement of Comprehensive Income
126 Group Statement of Changes in Equity
127 Group Balance Sheet
128 Group Cash Flow Statement
129 Notes to the Financial Statements
209 Company Financial Statements
211 Notes to the Company Financial Statements
220 Gas and Liquids Reserves (Unaudited)
222 Ofgem Consolidated Segmental Statement

Independent Auditor’s Report

Report on the audit of the financial statements

Opinion

In our opinion:

- the Financial Statements of Centrica plc (the ‘Company’) and its subsidiaries (the ‘Group’) give a true and fair view of the state of the Group’s and of the Company’s affairs as at 31 December 2018 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;
- the Company Financial Statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 101 “Reduced Disclosure Framework”; and
- the Financial Statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group Financial Statements, Article 4 of the IAS Regulation.

We have audited the financial statements which comprise:

- the Group Income Statement;
- the Group Statement of Comprehensive Income;
- the Group and Company Balance Sheets;
- the Group and Company Statements of Changes in Equity;
- the Group Cash Flow Statement; and
- the related notes 1 to 26 and the supplementary notes S1 to S11 of the Group financial statements and notes I to XVIII of the 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 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 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 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: • Presentation of the Group Income Statement; • Impairment or write back of long-life assets; • Revenue and cost recognition for derivatives; and • Estimation of accrued energy revenue. Within this report, any new key audit matters are identified with ⏫ and any key audit matters which are the same as the prior year are identified with ⏩.
Materiality	The materiality that we used for the Group Financial Statements was £60 million which was determined on the basis of 5% of profit before tax adjusted for exceptional items and certain re-measurements, as defined in note 2(a) and note 7.
Scoping	All segments of the Group have been subject to a full scope audit using a component materiality level relevant to the size and risk associated with that segment other than Distributed Energy & Power and Central Power Generation, which were subject to specified audit procedures.
Significant changes in our approach	The following changes were made to the key audit matters reported in the prior year: • We have refined the key audit matter reported in the prior year around the presentation of exceptional items and certain re-measurements to cover the overall presentation of the Group Income Statement. • The accounting for the acquisition of Bayerngas Norge AS’s exploration and production business is no longer a key audit matter as it is not relevant in the current year as the transaction completed in 2017.

Conclusions relating to going concern, principal risks and viability statement

Going concern

We have reviewed the directors' statement on page 112 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 twelve months from the date of approval of the Financial Statements.

We considered as part of our risk assessment the nature of the company, 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 company'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 9.8.6R(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 41 to 51 that describe the principal risks and explain how they are being managed or mitigated;
- the directors' confirmation on page 44 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 page 51 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 9.8.6R (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 to 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 include those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

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

Key audit matter description

Presentation of the Group Income Statement

The Group Income Statement set out on page 124 of the Annual Report & Accounts segregates Business performance from Exceptional items and certain re-measurements (the 'Middle column') in arriving at the results for the year with additional information disclosed in Note 7. The Group's policy on the presentation of exceptional items and certain re-measurements can be found in notes 2(a) and 2(b). The Audit Committee also discuss this area in their report on pages 80 to 84.

Business performance is a critical measure for stakeholders and underpins the Group's segmental analysis and description of business results and therefore the classification of items between Business performance and the Middle column is important for users of the accounts.

The key items included within the Middle column are as follows:

- Impairment and/or write back of certain assets;
- Re-measurement of certain energy contracts;
- Restructuring and business change costs;
- Provision for onerous contracts;
- Guaranteed minimum pension equalisation past service cost;
- Debt repurchase costs; and
- Related tax charges and credits.

The Group has an established policy which governs which items should be recognised in the Middle column. However, judgement is applied in the application of this policy. This is a key area of audit focus for our audit. We identified a fraud risk in respect of the presentation of exceptional items, in particular restructuring and business change costs.

The valuation and recording of the impairment and write back of certain assets and the valuation and recording of the re-measurement of certain energy contracts are separate key audit matters. Please see pages 117 and 118 for further detail. The presentation of these items (and related onerous contract provisions) within either Business performance or the Middle column is addressed within this key audit matter.

The Group records re-measurements of certain energy contracts within cost of sales when unrealised. The Group's policy for the re-measurement of certain energy contracts includes the reclassification of mark to market movements between cost of sales and revenue upon realisation of those contracts. This is a common treatment but challenge has been made as to whether it is appropriate following the adoption of IFRS 9 Financial Instruments and IFRS 15 Revenue from Contracts with Customers. This practice is currently under consultation by the International Financial Reporting Interpretations Committee (IFRIC). A change in policy and presentation may be required in 2019 if the IFRIC determines that such reclassifications are no longer permitted.

The Group announced in 2018 the second phase of the strategic review which was initially announced in 2015. Significant restructuring and business change costs were incurred in 2018 in relation to this review as set out on page 38. The costs of restructuring and business change arising from the strategic review are included within the Middle Column. Judgement is needed around which costs are included within the Middle column and which are reported as ongoing costs within Business performance.

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

Audit procedures applicable to all items

- We assessed the design and implementation of key controls around the presentation of items within either Business performance or the Middle column.
- We reviewed the Group's policy on the recording of items within Business performance or the Middle column and considered whether that policy was appropriate. We also evaluated the Group's policy against guidance issued by the Financial Reporting Council (FRC) and the European Securities and Markets Authority (ESMA).
- We challenged Management on the presentation of items within the Middle column and whether these items had been correctly presented within the appropriate column and properly disclosed in line with the Group's policy.

Audit procedures applicable to specific items

- On impairment and/or write backs of certain assets (and related onerous contract provisions), we challenged Management on the factors that caused any significant movement in value on each asset by interrogating the underlying impairment models and whether the impairment and/or write back had been recorded within the correct column.
- On the re-measurement of certain energy contracts and the recycling on realisation of certain fair value movements to revenue, we reviewed relevant accounting literature in order to determine whether the approach adopted was reasonable.
- For restructuring and business change costs we audited the costs recorded by Management within the Middle column and challenged whether those costs were being correctly reported in line with the Group's policy.
- We reviewed the presentation and disclosure of Management's conclusions in the Annual Report & Accounts to assess whether the disclosures are consistent with the Group's policy and relevant accounting standards.

Key observations

- The majority of the asset impairments and/or write backs arise from changes in forecast future energy prices and therefore under the Group's policy are appropriately recorded within the Middle column.
- Where the impairment and/or write back involves a change in forecast future energy prices combined with factors such as operational performance or available reserves, a judgement is taken by the Group whether this should be reported in the Middle column. We believe these judgements are reasonable.
- We are satisfied that the Group's current treatment for the reclassification of mark to market movements between cost of sales and revenue is reasonable pending the IFRIC determination.
- The majority of restructuring costs relate to clearly defined projects (see 36). However, there are certain smaller costs incurred in the year which relate to restructuring activities in other areas of the business, and which have been treated as exceptional items and presented within the Middle column in the income statement. Whilst the treatment of these costs as exceptional is subjective, the costs incurred are not material to the Financial Statements.

Key audit matter description

Impairment or write back of long-life assets

The total book value of Gas production and storage assets is £3,438m and the total book value of the investment in Nuclear is £1,645m. Management have recorded a net pre-tax impairment reversal of £90 million as disclosed in note 7. Further details on the key sources of estimation certainty underpinning the impairment of long life assets can be found in note 3(b). Details on the sensitivity of the above impairment reviews to changes in key assumptions such as commodity prices are disclosed in Note 7(d). The matter is also considered by the Audit Committee in their report on pages 80 to 84.

The Group owns significant upstream gas and oil assets and certain power generation assets, which are required to be reviewed for indicators of impairment and tested for impairment as appropriate.

These assets are subject to the greatest estimation uncertainty due to their sensitivity to factors such as future commodity prices and discount rates.

Consequently they represent the highest risk of impairment. We therefore identified a risk of material misstatement that these long-life assets are not recoverable or that previously recorded impairments should or should not be reversed.

The impairment assessment involves management judgement in considering whether the carrying value of those assets or cash generating units are recoverable. The key assumptions and judgements underpinning the impairment reviews include:

- forecast future cash flows;
- forecast future production or generation profiles;
- forecast future commodity prices;
- estimates of oil and gas reserves; and
- determining an appropriate discount rate.

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

Procedures on the overall impairment review

- We have understood management's process for identifying indicators of impairment and for performing their impairment assessment. We assessed the design and implementation of key controls relating to the asset impairment models, the underlying forecasting process and the impairment reviews performed.
- We evaluated and challenged the key assumptions and inputs into the impairment models, which included performing sensitivity analysis, to evaluate the impact of selecting alternative assumptions.
- We audited the arithmetical accuracy of the impairment models. We recalculated the impairment charges, write backs or headroom and agreed these to financial records.
- We evaluated the impairment or write back judgements taken, with reference to our assessment of the key assumptions as outlined above and the outcome of the sensitivities performed. For potential impairment write backs, we understood the causes of any such write back, and corroborated this to evidence of trigger events, and evaluated whether the write back should or should not be recognised.

Procedures relating to forecast future cash flows

- We confirmed that forecast cash flows were consistent with Board approved forecasts, and analysed reasonably possible downside sensitivities.
- We validated production profiles to external reserve and operator estimates and agreed these to the cash flow forecast assumptions.
- We confirmed estimates of oil and gas reserves to third party reserve reports, assessing the skills, qualifications and independence of those third party experts.
- We evaluated the Group's determination of future commodity prices using our own internal experts, who benchmarked against externally available future commodity price estimates and performed sensitivity analysis with alternative future prices.

Procedures relating to the discount rate(s)

- We involved our internal valuation specialists to evaluate management's discount rates, which involved benchmarking against available market views and analysis.

Key observations

- We are satisfied that the key assumptions used to determine the recoverable amount of long-life assets are appropriate, including estimates of reserves, production and generation profiles.
- We are also satisfied that the Group's discount rate assumptions are determined based on acceptable valuation methodologies. These assumptions are towards the higher end when compared to the ranges determined by our internal valuation specialists but are considered reasonable.
- The Group's future commodity price estimates are within the acceptable range of external sources, albeit at the high end of this range.
- Based on the sensitivities we performed we are satisfied that the Group's total net pre-tax impairment reversal of £90 million is appropriate and other long-life assets are not impaired. We concur with Management's judgement that, other than those write backs recognised, previously recorded impairments should not currently be written back.

Key audit matter description

Revenue and cost recognition for derivatives

Details on the Group's derivative activities can be found in note 19 and note S3 (a). The key sources of estimation uncertainty associated with derivatives can be found in note 3(b) with further details on the presentation of certain re-measurement arising on derivatives disclosed in note 2(b).The matter is also considered by the Audit Committee in their report on pages 80 to 84. As disclosed in note 7 to the financial statements, certain re-measurements of £220 million have been recognised in the current year. The critical accounting judgement in respect of Liquefied Natural Gas ('LNG') is disclosed in note 3(a) and the long term LNG commitments are disclosed in note 23.

In addition to proprietary trading activities, the Group enters into forward commodity contracts to optimise the value of its production, generation, storage and transportation assets as well as to meet the future needs of its customers. Certain of these arrangements are accounted for as derivative financial instruments and are recorded at fair value. We identified the following risks in respect of commodity trades:

Valuation of complex trades

- Judgement is required in valuing derivative contracts, particularly where there is optionality in a contract that requires modelling on a bespoke basis (Level 2 or 3 in accordance with IFRS 13 Fair Value Measurement). As such we identified a risk relating to the valuation of complex trades.

Own-use treatment and accruals accounting

- Certain commodity contracts have been entered into for the purposes of securing commodities for the energy supply businesses. Where contracts have been entered into to satisfy Centrica's normal business activities, these have been determined to be own-use contracts and consequently are not recorded at fair value. Due to the size and value of these contracts we have identified the appropriateness of the own-use treatment as a key audit matter.
- The Group does not consider its long term LNG supply contracts as derivatives because of a lack of market liquidity. Such contracts are therefore not marked to market. These contracts are significant commitments and therefore this judgement is important to the Group's financial statements.

Allocation of optimisation and hedging trading activity in the Middle column

- Where the Group enters into trades that give rise to an accounting mismatch between accrual accounted assets, contracts and demand and the marked to market accounted forward commodity contracts, the fair values of those contracts are accounted for separately as 'certain re-measurements' within the Middle column of the Group's Income Statement and are excluded from Business performance.

Due to the judgement involved in identifying and valuing these contracts, we have identified the appropriateness of the allocation of trades to the Middle column as a key audit matter, as this has a significant impact on the Group's reported business performance. This was also identified by us a fraud risk.

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

- We have understood the Group's processes and controls for authorising and recording commodity trades including assessing the design and implementation of key controls.
- In the Group's Energy, Marketing and Trading ('EM&T') segment, we used data analytics to trace commodity trades from initiation through to confirmation, settlement (where relevant) and recording in the Group's accounting systems. This included an assessment of whether the accounting recognition was in line with the Group's accounting policies and relevant accounting standards.

Valuation of complex trades

- We used financial instrument specialists to assist the audit team in valuing complex trades, which included auditing the Group's valuation models by creating an independent valuation, or performing input and output analysis for all material non-standard contracts.

Own-use treatment

- We reviewed all the Group's material 'own use' contracts which were entered into during the year to determine whether the application of the own-use treatment was appropriate.
- We audited the prospective and retrospective demand tests performed by the Group to determine whether the contract volumes exceed the amount of estimated own-use demand in the relevant periods, including an evaluation of the contracts for net settlement activity.

Allocation of optimisation and hedging trading activity in the Middle column

- We audited the principles management use to determine whether a trade should be recognised as part of on-going business performance or presented separately. We evaluated whether those agreed principles had been applied consistently by reviewing key contracts and testing a sample of trades to confirm that the accounting treatment was appropriate.
- We also verified that trades within certain re-measurements were entered into at market prices where the counter-party was another Group business, to ensure that profits and losses within the Middle column reflect only market-related movements.

Key observations

- We are satisfied that commodity trades are valued appropriately and that the accounting classification and valuation of trades is appropriate.
- In North America Business, we identified misstatements associated with the own use classification which arose as a result of weaknesses in the control environment. These misstatements were not material and were corrected by management, but improvements are required to the control environment relating to these accounting judgements. North America Business controls and accounting processes are discussed in the Audit Committee report on pages 80 to 84.
- We agree with the conclusion that LNG contracts should not be marked to market.

Key audit matter description

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

Estimation of accrued energy revenue

Details on the Group's accrued energy income can be found in note 17. Total supply accrued energy income at 31 December 2018 was £1,542m (2017: £1,585m). The key source of estimation uncertainty associated with accrued energy income is disclosed in note 3(b). The matter is also considered by the Audit Committee in their report on pages 80 to 84.

The recognition of energy supply revenue requires the Group to estimate customer energy usage between the date of the last meter read and the year end, known as accrued or unbilled energy revenue.

Our risk was focused on the accuracy and valuation of accrued energy revenue in the UK and North American Home and Business segments being the segments with the most significant accrued energy revenue. We have pinpointed the risk to the estimates underpinning the recognition and valuation of accrued energy revenue and the potential for management override of related controls. We also identified this as a fraud risk.

- Our audit approach for unbilled revenue was a combination of tests of internal control and data analytics work. This included understanding the design of controls in the UK and North American revenue processes, from meter reading to cash collection, and controls over the period end revenue reconciliation process. In the UK, we tested the design, implementation and operating effectiveness of key controls relied on to estimate accrued energy revenue. In North America, we assessed the design and implementation of controls around accrued energy revenue.
- We used data analytics in UK Home and Business to independently recalculate the accrued energy revenue estimate generated by the billing systems for each customer account, in addition to auditing key manual adjustments made by management, and the key assumption, being the value of energy consumed since the last meter read.
- In North America, we focused on creating an independent estimate of accrued energy revenue and compared this to the estimate determined by management.
- In the UK and North America we assessed the accuracy of the estimates made by management in prior periods. Any differences as a result of the work performed were investigated and challenged.

Key observations

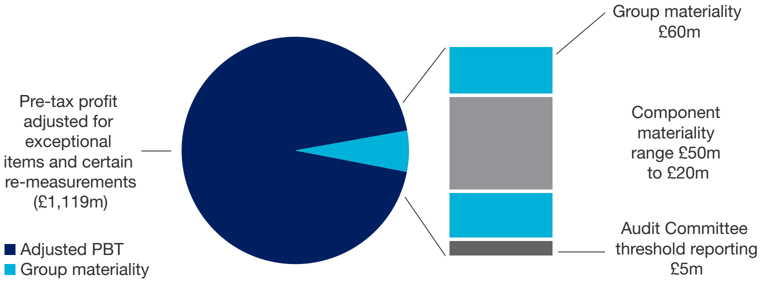
- We are satisfied that the estimation of the Group's accrued energy revenue is materially correct. The estimation processes in the UK are appropriately controlled and whilst some improvements were made to processes in North America, the controls are not yet at a stage where we were are able to rely on their operating effectiveness. This is discussed further in the Audit Committees report on pages 80 to 84.

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	Company Financial Statements
Materiality	£60 million (2017: £50 million)	£50 million (2017: £40 million)
Basis for determining materiality	We determined Group materiality on the basis of 5% of forecast 2018 pre-tax profit, adjusted for exceptional items and certain re-measurements as defined in note 7 to the financial statements (2017: 5%). Our materiality represents 5.4% of the final pre-tax profit adjusted for exceptional items and certain re-measurements (2017: 5.6%).	We determined Company materiality based on 1% (2017: 1%) of estimated net assets. Our materiality represents 0.9% of final net assets (2017: 0.8%).
Rationale for the benchmark applied	Pre-tax profit adjusted for exceptional items and certain re-measurements was considered to be the most relevant benchmark as it is of most interest to stakeholders. Furthermore, exceptional items and certain re-measurements are volatile and materially impact the Group's performance each year due to events and transactions that are not part of the underlying activities of the Group, and excluding them enables a more consistent basis with which to consider the Group's performance on an ongoing basis.	We considered net assets to be the most appropriate benchmark given the primary purpose of the company is a holding company.



We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £5 million (2017: £5 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.

An overview of the scope of our audit

The Group is organised by its different operating segments as outlined in note 4. These operating segments represent the different businesses in the Group, and are how management monitor performance. We used the Group's operating segments as the basis for our audit scope.

Our audit was scoped by obtaining an understanding of the Group and its environment, including Group-wide controls, and assessing the risks of material misstatement at the Group level. Having performed this assessment it was concluded that the following components were considered to be the most significant and were subject to full scope audits:

- UK Home
- North America Home
- North America Business
- Energy Marketing & Trading
- Exploration & Production (Spirit Energy)

The following components were identified as individually non-significant components. However we concluded that a full scope audit was appropriate where components have material risks or given the strategic importance of the businesses:

- Connected Home
- UK Business
- Ireland
- Centrica Storage (within Exploration and Production)

The following components were individually not financially significant and as such we performed specified audit procedures over relevant audit risks:

- Distributed Energy & Power
- Central Power Generation

This scoping resulted in 98% of Group revenue, 94% of Group profit before tax and 96% of Group net assets being subject to audit.

The materiality levels of the components ranged from £20 million to £50 million depending on the contribution of the component's operations to the Group and our assessment of risk relevant to each location. Given our judgement to perform full scope audits in the non-significant segments noted above, we determined that a component materiality of £20 million for these businesses was appropriate to reflect the lower risk profile of these segments.

All components except for North America Home, North America Business and Ireland are audited from the United Kingdom and hence we oversee these component audits through regular meetings and direct supervision. For the overseas components, each was visited throughout the year by the Group audit partner and other senior members of the engagement team. Throughout the year, the Group audit team has been directly involved in overseeing the component audit planning and execution, through frequent conversations, team meetings, debate, challenge and review of reporting and underlying work papers. In addition to our direct interactions, we sent detailed instructions to our component audit teams, attended audit closing meetings, and reviewed their audit working papers. We are satisfied that the level of involvement of the Group audit partner and team in the component audits has been extensive, and has enabled us to conclude that sufficient appropriate audit evidence has been obtained in support of our opinion on the Group Financial Statements as a whole.

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 9.8.10R (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 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 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 and IT regarding how and where fraud might occur in the financial statements and any potential indicators of fraud. As part of this discussion, we considered there was a risk of fraud around the presentation of the Group income statement, the valuation and recognition of derivatives and the recognition of accrued energy income all of which are considered key audit matters. We also considered there was a risk of fraud around the valuation of decommissioning provisions, the completeness of provisions for uncertain tax provisions and management override of controls; and
- 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 and which could directly impact the Group include the UK Companies Act, the UK Listing Rules and Pensions and Tax legislation. Other key regulations which could have an indirect effect include regulations set by regulators in the key markets in which the Group operates including the Office of Gas and Electricity Markets (Ofgem) and Regulations levied by the UK Financial Conduct Authority and Prudential Regulatory Authority.

Audit response to risks identified

As a result of performing the above, we identified (i) The Presentation of the Group Income Statement, (ii) Revenue and cost recognition for derivatives and (iii) Estimation of unbilled energy supply revenue as key audit matters which were also identified as risks of fraud. The key audit matters section of our report explains the matters in more detail and also describes the specific procedures we performed in response to those key audit matters.

In addition to the above, 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;
- enquiring of management, the audit committee and in-house 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 relevant authorities where matters identified were significant;
- performing audit procedures to challenge the key assumptions underpinning those audit risks where a risk of fraud was identified but which were not identified as key audit matters including decommissioning provisions and the completeness of provisions for uncertain tax provisions;
- 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.

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 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 Company, or returns adequate for our audit have not been received from branches not visited by us; or • the 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

Following the recommendation of the audit committee, we were appointed by the Shareholders on 14 May 2018 to audit the financial statements for the year ending 31 December 2018 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm is 2 years, covering the years ending 31 December 2017 to 31 December 2018.

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.

James Leigh FCA (Senior statutory auditor)
For and on behalf of Deloitte LLP

Statutory Auditor
London, United Kingdom
20 February 2019

Group Income Statement

		2018			2017 (restated) (i) (ii)		
Year ended 31 December	Notes	Business performance £m	Exceptional items and certain re-measurements £m	Results for the year £m	Business performance £m	Exceptional items and certain re-measurements £m	Results for the year £m
Group revenue	4(b)	**29,686**	**–**	**29,686**	28,035	–	28,035
Cost of sales before exceptional items and certain re-measurements	5	**(25,433)**	**–**	**(25,433)**	(23,998)	–	(23,998)
Re-measurement of certain energy contracts	7	**–**	**(200)**	**(200)**	–	153	153
Cost of sales	5	**(25,433)**	**(200)**	**(25,633)**	(23,998)	153	(23,845)
Gross profit/(loss)		**4,253**	**(200)**	**4,053**	4,037	153	4,190
Operating costs before exceptional items and credit losses on financial assets	5	**(2,721)**	**–**	**(2,721)**	(2,716)	–	(2,716)
Credit losses on financial assets (ii)	5, 17	**(143)**	**–**	**(143)**	(132)	–	(132)
Exceptional items – net write-back/(impairment) of Exploration & Production assets	7	**–**	**90**	**90**	–	(678)	(678)
Exceptional items – net loss on disposal (iii)	7	**–**	**–**	**–**	–	(62)	(62)
Exceptional items – restructuring and business change costs	7	**–**	**(170)**	**(170)**	–	(144)	(144)
Exceptional items – other	7	**–**	**(103)**	**(103)**	–	–	–
Operating costs	5	**(2,864)**	**(183)**	**(3,047)**	(2,848)	(884)	(3,732)
Share of profits/(losses) of joint ventures and associates, net of interest and taxation	6, 7	**3**	**(22)**	**(19)**	51	(28)	23
Group operating profit/(loss)	4(c)	**1,392**	**(405)**	**987**	1,240	(759)	481
Financing costs	7, 8	**(300)**	**(139)**	**(439)**	(364)	–	(364)
Investment income	8	**27**	**–**	**27**	20	–	20
Net finance cost		**(273)**	**(139)**	**(412)**	(344)	–	(344)
Profit/(loss) before taxation		**1,119**	**(544)**	**575**	896	(759)	137
Taxation on profit/(loss)	7, 9	**(461)**	**128**	**(333)**	(191)	352	161
Profit/(loss) for the year		**658**	**(416)**	**242**	705	(407)	298
Attributable to:							
Owners of the parent		**631**	**(448)**	**183**	693	(365)	328
Non-controlling interests		**27**	**32**	**59**	12	(42)	(30)

Earnings per ordinary share				**Pence**			Pence
Basic	10			**3.3**			5.9
Diluted	10			**3.2**			5.9
Interim dividend paid per ordinary share	11			**3.60**			3.60
Final dividend proposed per ordinary share	11			**8.40**			8.40

(i) Prior year results have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

(ii) Credit losses on financial assets are now disclosed separately in accordance with IAS 1: 'Presentation of financial statements'. See note 1 for further details.

(iii) Gains and losses on disposal include any impairments and write-backs associated with the assets disposed of upon classification as held for sale.

The notes on pages 129 to 208 form part of these Financial Statements.

Group Statement of Comprehensive Income

Year ended 31 December	Notes	2018 £m	2017 (restated) (i) £m
Profit for the year		**242**	298
Other comprehensive income/(loss):			
Items that will be or have been reclassified to the Group Income Statement:			
Gains on revaluation of available-for-sale securities, net of taxation	S4	**–**	5
Net gains on cash flow hedges	S4	**22**	24
Transferred to income and expense on cash flow hedges (ii)	S4	**(10)**	(34)
Transferred to assets and liabilities on cash flow hedges (iii)	S4	**–**	(7)
Cash flow hedging reserve recycled to Group Income Statement on disposal	S4	**–**	10
Taxation on cash flow hedges	S4	**(2)**	1
		10	(6)
Exchange differences on translation of foreign operations (iv)	S4	**105**	(128)
Exchange gains on translation of actuarial reserve	S4	**1**	1
Exchange differences recycled to Group Income Statement on disposal		**–**	8
		116	(120)
Items that will not be reclassified to the Group Income Statement:			
Losses on revaluation of equity instruments measured at fair value through other comprehensive income, net of taxation	S4	**(1)**	–
Net actuarial gains on defined benefit pension schemes	S4	**792**	222
Taxation on net actuarial gains on defined benefit pension schemes	S4	**(135)**	(38)
		656	184
Share of other comprehensive (loss)/income of joint ventures and associates, net of taxation	S4	**(1)**	43
Other comprehensive income, net of taxation		**771**	107
Total comprehensive income for the year		**1,013**	405
Attributable to:			
Owners of the parent		**953**	432
Non-controlling interests	S11	**60**	(27)

(i) Comparatives have been restated on transition to IFRS 15: ‘Revenue from contracts with customers’. See note 1 for further details.

(ii) Cash flow hedging gains of £10 million (2017: £29 million) have been transferred to financing costs in the Group Income Statement. In 2017, £5 million cash flow hedging gains were transferred to operating costs before exceptional items in the Group Income Statement.

(iii) On adoption of IFRS 9: ‘Financial instruments’, cash flow hedging gains and losses transferred to assets and liabilities are no longer presented as an item in the Group Statement of Comprehensive Income and are now recognised directly in equity.

(iv) Includes £1 million gain (2017: £3 million) in respect of exchange differences on translation of foreign operations attributable to non-controlling interests.

The notes on pages 129 to 208 form part of these Financial Statements.

Group Statement of Changes in Equity

	Share capital (note 25) £m	Share premium £m	Retained earnings £m	Other equity (note S4) £m	**Total £m**	Non-controlling interests (note S11) £m	**Total equity £m**
1 January 2017	342	1,929	1,504	(1,109)	2,666	178	2,844
Effect of adoption of IFRS 15 (i)	–	–	9	–	9	–	9
1 January 2017 (restated) (i)	342	1,929	1,513	(1,109)	2,675	178	2,853
Profit/(loss) for the year (restated) (i)	–	–	328	–	328	(30)	298
Other comprehensive income	–	–	–	104	104	3	107
Employee share schemes	–	–	4	31	35	–	35
Scrip dividend	6	192	–	–	198	–	198
Dividends paid to equity holders (note 11)	–	–	(661)	–	(661)	–	(661)
Distributions to non-controlling interests	–	–	–	–	–	(3)	(3)
Acquisition of business	–	–	–	24	24	721	745
Disposal of business	–	–	–	–	–	(152)	(152)
Investment by non-controlling interests	–	–	–	–	–	12	12
31 December 2017 (restated) (i)	348	2,121	1,184	(950)	2,703	729	3,432
Adjustment on adoption of IFRS 9 (i)	–	–	28	(28)	**–**	–	**–**
Profit for the year	–	–	183	–	**183**	59	**242**
Other comprehensive income	–	–	–	770	**770**	1	**771**
Transfers to assets and liabilities from cash flow hedging reserve (i)	–	–	–	(1)	**(1)**	–	**(1)**
Employee share schemes	–	–	3	27	**30**	–	**30**
Scrip dividend (note 11)	6	119	–	–	**125**	–	**125**
Dividends paid to equity holders (note 11)	–	–	(673)	–	**(673)**	–	**(673)**
Acquisition of business (note 12)	–	–	–	8	**8**	14	**22**
31 December 2018	**354**	**2,240**	**725**	**(174)**	**3,145**	**803**	**3,948**

(i) See note 1 for further details of adjustments and restatements arising on transition to IFRS 15: 'Revenue from contracts with customers' and IFRS 9: 'Financial instruments'.

The notes on pages 129 to 208 form part of these Financial Statements.

Group Balance Sheet

	Notes	31 December 2018 £m	31 December 2017 (restated) (i) £m
Non-current assets			
Property, plant and equipment	13	**4,124**	4,132
Interests in joint ventures and associates	14	**1,661**	1,699
Other intangible assets	15	**1,720**	1,676
Goodwill	15	**2,736**	2,650
Deferred tax assets	16	**532**	568
Trade and other receivables, and contract-related assets	17	**119**	97
Derivative financial instruments	19	**537**	463
Retirement benefit assets	22(d)	**223**	–
Securities	24	**239**	231
		11,891	11,516
Current assets			
Trade and other receivables, and contract-related assets	17	**5,543**	4,669
Inventories	18	**459**	409
Derivative financial instruments	19	**1,141**	927
Current tax assets		**187**	289
Securities	24	**68**	5
Cash and cash equivalents	24	**1,268**	2,864
		8,666	9,163
Total assets		**20,557**	20,679
Current liabilities			
Derivative financial instruments	19	**(1,136)**	(733)
Trade and other payables, and contract-related liabilities	20	**(6,207)**	(5,418)
Current tax liabilities		**(360)**	(336)
Provisions for other liabilities and charges	21	**(305)**	(264)
Bank overdrafts, loans and other borrowings	24	**(374)**	(707)
		(8,382)	(7,458)
Non-current liabilities			
Deferred tax liabilities	16	**(384)**	(174)
Derivative financial instruments	19	**(430)**	(287)
Trade and other payables, and contract-related liabilities	20	**(191)**	(167)
Provisions for other liabilities and charges	21	**(2,540)**	(2,684)
Retirement benefit obligations	22(d)	**(302)**	(886)
Bank loans and other borrowings	24	**(4,380)**	(5,591)
		(8,227)	(9,789)
Total liabilities		**(16,609)**	(17,247)
Net assets		**3,948**	3,432
Share capital	25	**354**	348
Share premium		**2,240**	2,121
Retained earnings		**725**	1,184
Other equity	S4	**(174)**	(950)
Total shareholders' equity		**3,145**	2,703
Non-controlling interests	S11	**803**	729
Total shareholders' equity and non-controlling interests		**3,948**	3,432

(i) Prior year comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

The Financial Statements on pages 124 to 208, of which the notes on pages 129 to 208 form part, were approved and authorised for issue by the Board of Directors on 20 February 2019 and were signed below on its behalf by:

Iain Conn
Group Chief Executive

Chris O'Shea
Group Chief Financial Officer

Group Cash Flow Statement

Year ended 31 December	Notes	2018 £m	2017 (restated) (i) £m
Group operating profit including share of results of joint ventures and associates		**987**	481
Add back/(deduct) share of losses/(profits) of joint ventures and associates, net of interest and taxation	6	**19**	(23)
Group operating profit before share of results of joint ventures and associates		**1,006**	458
Add back/(deduct):			
Depreciation, amortisation, write-downs, impairments and write-backs		**1,019**	1,794
Profit on disposals		**(13)**	(41)
Decrease in provisions		**(29)**	(227)
Cash contributions to defined benefit schemes in excess of service cost income statement charge		**(34)**	(104)
Employee share scheme costs	S4	**43**	47
Unrealised losses/(gains) arising from re-measurement of energy contracts		**241**	(45)
Operating cash flows before movements in working capital		**2,233**	1,882
Increase in inventories		**(43)**	(56)
(Increase)/decrease in trade and other receivables		**(831)**	263
Increase in trade and other payables		**884**	29
Operating cash flows before payments relating to taxes and exceptional charges		**2,243**	2,118
Taxes paid	9(d)	**(61)**	(102)
Payments relating to exceptional charges in operating costs		**(248)**	(176)
Net cash flow from operating activities		**1,934**	1,840
Purchase of businesses, net of cash acquired		**(85)**	17
Sale of businesses		**20**	593
Purchase of property, plant and equipment and intangible assets	4(e)	**(926)**	(882)
Sale of property, plant and equipment and intangible assets		**26**	14
Investments in joint ventures and associates	14(a)	**(3)**	(6)
Dividends received from joint ventures and associates	14(a)	**22**	58
Disposal of interests in joint ventures and associates		**–**	218
Interest received		**15**	22
Purchase of securities	24(c)	**(76)**	(2)
Net cash flow from investing activities		**(1,007)**	32
Payments for own shares	S4	**(11)**	(11)
Distribution to non-controlling interests		**–**	(7)
Financing interest paid	24(c)	**(305)**	(318)
Repayment of borrowings and finance leases [(ii)]	24(c)	**(1,673)**	(271)
Equity dividends paid		**(551)**	(463)
Net cash flow from financing activities		**(2,540)**	(1,070)
Net (decrease)/increase in cash and cash equivalents		**(1,613)**	802
Cash and cash equivalents including overdrafts at 1 January		**2,737**	1,960
Effect of foreign exchange rate changes		**4**	(25)
Cash and cash equivalents including overdrafts at 31 December	24(c)	**1,128**	2,737
Included in the following line of the Group Balance Sheet:			
Cash and cash equivalents		**1,268**	2,864
Overdrafts included within current bank overdrafts, loans and other borrowings		**(140)**	(127)

(i) Prior period comparatives have been restated on transition to IFRS 15: ‘Revenue from contracts with customers’. See note 1 for further details.

(ii) Includes cash flows related to exceptional costs for the Group’s debt repurchase programme. See note 7 for further details.

The notes on pages 129 to 208 form part of these Financial Statements.

Notes to the Financial Statements

Notes to the Financial Statements provide additional information required by statute, accounting standards or Listing Rules to explain a particular feature of the consolidated Financial Statements.

The notes to these Financial Statements focus on areas that are key to understanding our business. Additional information that we are required to disclose by accounting standards or regulation is disclosed in the Supplementary Information (notes S1 to S11).

In addition, for clarity, each note begins with a simple introduction outlining its purpose.

1. Summary of significant new accounting policies and reporting changes

This section details new accounting standards, amendments to standards and interpretations, whether these are effective in 2018 or later years, and if and how these are expected to impact the financial position and performance of the Group.

The principal accounting policies applied in the preparation of these consolidated Financial Statements are set out below and in the Supplementary Information (note S2). Unless otherwise stated, these policies have been consistently applied to the years presented.

(a) Basis of preparation

The consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted by the European Union (EU) and therefore comply with Article 4 of the EU IAS Regulation and those parts of the Companies Act 2006 applicable to companies reporting under IFRS.

The consolidated Financial Statements have been prepared on the historical cost basis except for: certain oil and gas inventory, derivative financial instruments, financial instruments designated at fair value through profit or loss on initial recognition or required to be measured at fair value through profit or loss or other comprehensive income on initial recognition, and the assets of the Group's defined benefit pension schemes that have been measured at fair value; the liabilities of the Group's defined benefit pension schemes that have been measured using the projected unit credit valuation method; and the carrying values of recognised assets and liabilities qualifying as hedged items in fair value hedges that have been adjusted from cost by the changes in the fair values attributable to the risks that are being hedged.

The preparation of financial statements in conformity with IFRS, as adopted by the EU, requires the use of certain critical accounting estimates. It requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity and areas where assumptions and estimates are significant to the consolidated Financial Statements are described in notes 2 and 3.

(b) Standards, amendments and interpretations effective or adopted in 2018

From 1 January 2018, the following standards and amendments are effective in the Group's consolidated Financial Statements:

- IFRS 9: 'Financial instruments'
- IFRS 15: 'Revenue from contracts with customers'

The impact of adoption of these standards and the key changes to the accounting policies are disclosed below.

The following standards and amendments to IFRSs became effective for the period beginning on 1 January 2018 and did not have a material impact on the consolidated financial statements:

- IFRIC 22: Foreign Currency Transactions and Advance Consideration;
- Classification and Measurement of Share-Based Payment Transactions – Amendments to IFRS 2;
- Annual Improvements 2014-2016 Cycle; and
- Transfers of Investment Property – Amendments to IAS 40.

IFRS 9

The Group adopted IFRS 9 from 1 January 2018. In accordance with the transition provisions in the Standard, comparatives have not been restated.

Classification of financial assets

IFRS 9 requires the use of two criteria to determine the classification of financial assets: the entity's business model for the financial assets and the contractual cash flow characteristics of the financial assets. The Standard goes on to identify three categories of financial assets - amortised cost; fair value through profit or loss (FVTPL); and fair value through other comprehensive income (FVOCI).

As a result of adopting IFRS 9, certain debt financial instruments previously classified as available-for-sale and measured at FVOCI have been reclassified and are now measured at FVTPL. The value of debt instruments reclassified at 1 January 2018 was £74 million. Consequently, on the same date £28 million of previous fair value gains, net of taxation, were reclassified from the available-for-sale reserve to retained earnings.

The Group's remaining available-for-sale assets were equity instruments and at 1 January 2018 the Group elected to classify these at FVOCI, thereby retaining the previous measurement treatment. Certain cash and cash equivalents (money market funds) have also been classified as FVTPL on adoption of IFRS 9.

A summary of all reclassifications, which have resulted in no change to the carrying value of any financial instrument, is shown below. All other financial instruments (cash and deposits, trade receivables, borrowings, derivative instruments etc.) measurement categories and carrying amounts remain the same.

Type of financial instrument	IAS 39 measurement category	IFRS 9 measurement category	1 January 2018 £m
Non-current financial assets			
Equity securities	Available-for-sale	FVOCI	**34**
Debt securities	Available-for-sale	FVTPL	**74**
Current financial assets			
Cash and cash equivalents – money market funds	Amortised cost	FVTPL	**2,022**

Impairment

IFRS 9 mandates the use of an expected credit loss model to calculate impairment losses rather than an incurred loss model, and therefore it is not necessary for a credit event to have occurred before credit losses are recognised. The new impairment model applies to the Group's financial assets, contract assets and loan commitments.

1. Summary of significant new accounting policies and reporting changes

No changes to the Group's impairment provisions were made on transition to IFRS 9. The majority of trade receivables reside in the Group's energy supply and services businesses, where a sophisticated provision matrix approach is already applied to establish impairment provisions and the inclusion of specific expected credit loss considerations did not have a material impact. In addition, a significant portion of the Group's other financial assets subject to IFRS 9's requirements are in the Group's Treasury function where investment ratings of counterparties result in low credit risk and the calculated loss according to the assessed default rate of these counterparties is not material. Credit losses on financial assets are now disclosed separately on the face of the Group Income Statement in accordance with IAS 1: 'Presentation of financial statements'.

Hedge accounting

The Group has not applied IFRS 9's hedge accounting requirements and continues to account for its hedge relationships in accordance with IAS 39.

IFRS 15

The Group adopted IFRS 15: 'Revenue from contracts with customers' from 1 January 2018. The primary impact of application is the revision of accounting policies to reflect the five-step approach to revenue recognition required by IFRS 15, resulting in insignificant adjustments to amounts previously recognised in the financial statements, although comparatives have been restated.

The key changes to accounting policies are described below.

Energy supply to business and residential customers

The Group supplies gas and electricity to residential and business customers in the UK, Ireland and North America. The vast majority of contractual energy supply arrangements have no fixed duration, require no minimum consumption by the customer and can be terminated by either party at any time. The Group has determined that no enforceable rights and obligations exist at inception of the contract and arise only once the cooling off period is complete and the Group is the legal supplier of energy to the customer. The performance obligation is the supply of energy over the contractual term; the units of supply represent a series of distinct goods that are substantially the same with the same pattern of transfer to the customer. The performance obligation is considered to be satisfied as the customer consumes based on the units of energy delivered. This is the point at which revenue is recognised.

In respect of energy supply contracts, the Group considers that it has the right to consideration from the customer for an amount that corresponds directly with the value delivered to the customer through their consumption. It is the judgement of the Group that the customer consumes energy as the Group supplies and, as a result, the Group recognises revenue for the amount which the entity has a right to invoice. The Group's assessment of the amount that it has a right to invoice includes an assessment of energy supplied to customers between the date of the last meter reading and the year end (known as unread revenue). Unread gas and electricity comprises both billed and unbilled revenue and is estimated through the billing systems, using historical consumption patterns, on a customer-by-customer basis, taking into account weather patterns, load forecasts and the differences between actual meter readings being returned and system estimates. Actual meter readings continue to be compared to system estimates between the balance sheet date and the finalisation of the accounts.

The Group holds a number of energy supply contracts that specify a minimum consumption volume over a specified contractual term. The transaction price for these contracts is the minimum supply volume multiplied by the contractually agreed price per unit of energy. Revenue from the sale of additional volumes is considered to be variable and not included in the transaction price. Revenue for these contracts continues to be recognised as invoiced.

Energy services provided to business and residential customers

Energy services in the scope of IFRS 15 relate to the installation, repair and maintenance of central heating, ventilation and air conditioning systems as well as smaller installation services across the UK, Ireland and North America.

In the UK, delivery of an item is considered a separate performance obligation to the installation of the item, both satisfied at a point in time. Delivery is the point at which control passes to the customer as the customer takes physical possession of the asset. It is also the point at which the Group has the right to consideration. Delivery and installation usually occur at the same point in time and consequently revenue is recognised for both performance obligations simultaneously.

The five-year warranty provided with a boiler is not considered a separate performance obligation.

Certain heating, ventilation and air conditioning (HVAC) system installations in North America are considered to be a single performance obligation satisfied over time, representing the Group's promise to deliver to the customer a functioning HVAC system. The duration of these contracts may be over a number of weeks and the performance obligation is deemed to be satisfied over this period. Revenue is recognised on an input basis with reference to costs incurred.

Sales of own gas and liquid production

Revenue arising from the sale of produced gas is recognised in a manner consistent with energy supply contracts with the revenue recognition profile reflecting the supply of gas to the customer. In respect of oil sales, each barrel of oil is considered a separate performance obligation satisfied at a point in time – on delivery.

The rights and obligations identifiable within a contract where the Group holds sellers' nomination rights are considered to be enforceable from inception of the contract. The transaction price for the contract will include variable consideration based on forecast production and market prices. The point at which the performance obligation is satisfied and revenue recognised is the point at which control of the commodity passes to the customer according to the contractual trading terms, usually on shipment or delivery to a specified location.

Further details of the Group's revenue recognition policy are given in note S2.

Transition approach

In accordance with the transition provisions in IFRS 15, the Group has adopted the new rules retrospectively and has restated comparatives for the 2017 financial year.

The Group has applied the following practical expedients on initial application:

- IFRS 15:C5(a) (i, ii): Exemption from the requirement to apply the standard to contracts that begin and end within the same annual reporting period and contracts completed at the beginning of the earliest period presented; and
- IFRS 15:C5(b): Use of the transaction price at the date the contract was completed for completed contracts with variable consideration rather than estimating variable consideration amounts in the comparative reporting periods.

None of the above practical expedients had a material effect on the Financial Statements.

1. Summary of significant new accounting policies and reporting changes

In summary, the adjustments resulted in a £12 million increase in revenue, and a £5 million decrease in earnings for the year ended 31 December 2017. The following adjustments were also made to the amounts recognised in the comparative balance sheet presented in these consolidated Financial Statements:

	31 December 2017 £m				31 December 2017 £m
	IAS 18 carrying amount £m	Reclassification £m	Energy supply contract commissions (i) £m	Franchise revenue (ii) £m	IFRS 15 carrying amount £m
Trade and other receivables, and contract-related assets:					
> 1 year	87	8	2	–	97
< 1 year	4,668	(8)	9	–	4,669
Trade and other payables, and contract-related assets:					
< 1 year	(5,412)	–	–	(6)	(5,418)
Deferred tax liabilities	(173)	–	(3)	2	(174)

(i) Commissions paid on acquisition of energy supply contracts have been capitalised as a cost to obtain a contract. These costs will be amortised over the average contract duration.

(ii) Consideration received from franchisees previously recognised as revenue upon receipt is deferred and recognised over the life of the franchise agreement.

The impact on the Group's opening retained earnings is as follows:

1 January	2018 £m	2017 £m
Retained earnings (before IFRS 9 application):	**1,180**	1,504
Energy supply contract commissions, net of taxation	**8**	13
Franchise revenue, net of taxation	**(4)**	(4)
	1,184	1,513

(c) Standards and amendments that are issued but not yet applied by the Group

Endorsed by the EU

The Group has not applied the following standards and amendments in the consolidated Group Financial Statements as they are not yet effective, although they have been endorsed by the EU and will be effective from 1 January 2019, unless otherwise indicated:

- IFRS 16: 'Leases';
- IFRIC 23: 'Uncertainty over income tax treatments';
- Amendments to IFRS 9: 'Prepayment features with negative compensation'; and
- Amendments to IAS 28: 'Long-term interests in associates and joint ventures'.

IFRS 16

IFRS 16: 'Leases' was issued in January 2016 and will have a significant impact on the Group's consolidated Financial Statements as all leases will be recognised on the balance sheet (with the exception of short-term and low value leases), with a corresponding right-of-use asset also recognised.

The Group will apply the standard from its mandatory adoption date of 1 January 2019, utilising the simplified transition approach with existing lease assessments being grandfathered and comparatives not being restated for the year prior to initial application. All right-of-use assets will be measured at the amount of the lease liability on adoption.

Existing lease arrangements have been reviewed during the year to determine the impact of adoption, along with other contractual arrangements to identify the existence of embedded leases. The lease portfolio of the Group will not change significantly as a result of IFRS 16 as the standard primarily affects the accounting for arrangements previously assessed as operating leases.

At the reporting date, the Group's operating lease commitment of £343 million includes £5 million short-term leases which will be recognised on a straight-line basis as an expense in profit or loss. After adjusting for these items and the re-measurement of the existing Spalding finance lease, the Group expects to recognise incremental lease liabilities and associated right-of-use assets of approximately £420 million at 1 January 2019, thereby increasing net debt.

There is no deferred tax impact on initial application.

The Group does not expect a material earnings impact to arise as a result of application however, as all future cash flows will be treated as financing there will be an annual improvement to operating cash flows (and consequently, adjusted operating cash flow) in the region of £100 million.

Management does not currently expect the future application of other standards and amendments to have a material impact on the amounts reported and disclosed in the consolidated Financial Statements.

Not endorsed by the EU

The Group has not applied the following standards and amendments in the consolidated Group Financial Statements as they are not yet effective and they have not been endorsed by the EU:

- IFRS 17: 'Insurance contracts', effective from 1 January 2021;
- Amendments to IAS 19: 'Plan amendment, curtailment or settlement', effective from 1 January 2019;
- Annual Improvements to IFRS Standards 2015-2017 Cycle: Amendments to IFRS 3: 'Business combinations', IFRS 11: 'Joint arrangements', IAS 12: 'Income taxes' and IAS 23: 'Borrowing costs', effective from 1 January 2019;
- Amendments to references to the Conceptual Framework in IFRS Standards, effective from 1 January 2020;
- Amendments to IFRS 3: 'Business Combinations', effective 1 January 2020; and
- Amendments to IAS 1 and IAS 8: Definition of 'Material', effective 1 January 2020.

1. Summary of significant new accounting policies and reporting changes

IFRS 17: 'Insurance contracts' was issued in May 2017. Assuming it is endorsed by the EU, this new standard will not be effective before 1 January 2021 (a proposal has been made to postpone the current effective date to 1 January 2022). The Group currently has fixed-fee service contracts that it accounts for as insurance contracts under IFRS 4: 'Insurance contracts'. Under IFRS 17, subject to certain conditions, there is an accounting policy choice to account for these contracts under IFRS 17 or IFRS 15. As this could change the accounting for these contracts, this will be considered during the implementation of IFRS 17.

The amendments to IAS 19 apply to plan amendments, curtailments or settlements that occur on or after 1 January 2019, and the amendments to IFRS 3 and IFRS 11 apply to acquisitions of additional interests in joint arrangements for which the acquisition date is on or after 1 January 2019. As these types of transactions can vary in size and are non-recurring in nature, the Group cannot quantify the effect that these amendments could potentially have in the future.

Management does not currently expect the future application of the other interpretations and amendments to have a material impact on the amounts reported and disclosed in the consolidated Financial Statements.

In November 2018 the IFRIC issued a tentative pronouncement on the Physical Settlement of Contracts to Buy or Sell a non-Financial Item. This tentatively concluded that, for physical commodity trades within the scope of IFRS 9, entities should not transfer previously recognised, unrealised mark-to-market movements to different income statement line items upon realisation. If ratified, this decision would require a change to the Group's revenue and cost of sale presentation, although there would be no impact on gross profit.

(d) Other restatements

Following the announcement made by the Group in June 2017 that the Rough facility could not safely be returned to storage and injection operations, and the granting of a production consent from January 2018, the Rough field has operated as a producing gas asset. Therefore, reflecting this change in activity, and the segmental performance information reviewed by the Group's Executive Committee (which is the Group's Chief Operating Decision Maker as defined by IFRS 8: 'Operating segments'), the Group's reportable segments have been revised to present Centrica Storage (of which the Rough field is the principal asset) as part of Exploration & Production. Comparatives have been re-presented accordingly.

2. Centrica specific accounting measures

This section sets out the Group's specific accounting measures applied in the preparation of the consolidated Financial Statements. These measures enable the users of the accounts to understand the Group's underlying and statutory business performance separately.

(a) Use of adjusted performance measures

The Directors believe that reporting adjusted profit, adjusted earnings per share and adjusted operating cash flow provides additional useful information on business performance and underlying trends. These measures are used for internal performance purposes. The adjusted measures in this report are not defined terms under IFRS and may not be comparable with similarly titled measures reported by other companies.

The measure of operating profit used by management to evaluate segment performance is adjusted operating profit. Adjusted operating profit is defined as operating profit before:

- exceptional items; and
- certain re-measurements;

but including:

- the Group's share of business performance results from joint ventures and associates before interest and taxation.

Exceptional items and certain re-measurements are excluded because these items are considered by the Directors to distort the Group's underlying business performance. See note 2(b) for further details. The Group's share of results from joint ventures and associates is presented before interest and taxation because this gives a consistent measurement of results compared to wholly owned subsidiaries.

Note 4 contains an analysis of adjusted operating profit by segment and a reconciliation of adjusted operating profit to operating profit after exceptional items and certain re-measurements.

Note 4 also contains an analysis of adjusted operating profit after taxation by segment and a reconciliation to the statutory results for the year. Adjusted operating profit after taxation is defined as adjusted operating profit, net of associated taxation, before:

- the impact of changes to UK and US corporation tax rates; and
- certain corporate and other taxation.

Given the significant variance in tax rates for different jurisdictions and different businesses within the Group, this measure provides management with an analysis of each segment's contribution to overall earnings. The impact of changes to UK and US corporation tax rates is excluded because it predominantly relates to future tax impacts rather than the current year performance. The measure excludes interest and related tax impacts because this measure provides an analysis of the segment's operating performance and its contribution to earnings before the impact of the financing of the segment.

Adjusted earnings is defined as earnings before:

- exceptional items net of taxation; and
- certain re-measurements net of taxation.

A reconciliation of adjusted earnings and adjusted earnings per share is provided in note 10.

Adjusted operating cash flow is used by management to assess the cash generating abilities of each segment. Adjusted operating cash flow is defined as net cash flow from operating activities before:

- payments relating to exceptional items;
- deficit reduction payments made to the UK defined benefit pension schemes; and
- movements in variation margin and cash collateral that are included in net debt;

but including:

- dividends received from joint ventures and associates.

Payments related to exceptional items are excluded because the Directors do not consider these to represent underlying business performance. Deficit reduction payments and movements in variation margin and cash collateral are excluded because the Directors do not consider these to represent the operating cash flows generated by underlying business performance, as they are predominantly triggered by wider market factors and, in the case of variation margin and cash collateral, these represent timing differences. Dividends received from joint ventures and associates are considered by the Directors to represent operating cash flows generated by the Group's operations that are structured in this manner.

2. Centrica specific accounting measures

(b) Exceptional items and certain re-measurements

The Group reflects its underlying financial results in the 'business performance' column of the Group Income Statement. To be able to provide users with this clear and consistent presentation, the effects of 'certain re-measurements' of financial instruments, and 'exceptional items', are reported in a different column in the Group Income Statement.

The Group is an integrated energy business. This means that it utilises its knowledge and experience across the gas and power (and related commodity) value chains to make profits across the core markets in which it operates. As part of this strategy, the Group enters into a number of forward energy trades to protect and optimise the value of its underlying production, generation, storage and transportation assets (and similar capacity or off-take contracts), as well as to meet the future needs of its customers (downstream demand). These trades are designed to reduce the risk of holding such assets, contracts or downstream demand and are subject to strict risk limits and controls.

Primarily because some of these trades include terms that permit net settlement, they are prohibited from being designated as 'own use' and so IFRS 9: 'Financial instruments' requires them to be individually fair valued. Fair value movements on these commodity derivative trades do not reflect the underlying performance of the business because they are economically related to our upstream assets, capacity/off-take contracts or downstream demand, which are typically not fair valued. Therefore, these certain re-measurements are reported separately and are subsequently reflected in business performance when the underlying transaction or asset impacts profit or loss.

The arrangements discussed above and reflected as certain re-measurements are all managed separately from proprietary energy trading activities where trades are entered into speculatively for the purpose of making profits in their own right. These proprietary trades are included in the business performance column of the Group Income Statement, in the results before certain re-measurements.

Exceptional items are those items that, in the judgement of the Directors, need to be disclosed separately by virtue of their nature, size or incidence. Again, to ensure the business performance column reflects the underlying results of the Group, these exceptional items are also reported in the separate column in the Group Income Statement. Items that may be considered exceptional in nature include disposals of businesses or significant assets, business restructurings (including property rationalisation costs), significant onerous contract charges/releases, asset impairments/write-backs, certain pension costs/past service credits, the tax effects of these items and the effect of changes in UK upstream tax rates.

3. Critical accounting judgements and key sources of estimation uncertainty

This section sets out the key areas of judgement and estimation that have the most significant effect on the amounts recognised in the consolidated Financial Statements.

(a) Critical judgements in applying the Group's accounting policies

Such key judgements include the following:

- the presentation of selected items as exceptional (see notes 2 and 7);
- the use of adjusted profit, adjusted earnings per share and adjusted operating cash flow measures (see notes 2, 4 and 10); and
- the classification of energy contracts as derivative financial instruments and presentation as certain re-measurements (see notes 2, 7 and 19).

In addition, management has made the following key judgements in applying the Group's accounting policies that have the most significant effect on the consolidated Group Financial Statements.

Leases – third-party power station tolling arrangements

The Group's Spalding long-term power station tolling contract in the UK is considered a lease.

The arrangement provided Centrica with the right to nominate 100% of the plant capacity for the duration of the contract in return for a mix of capacity payments and operating payments based on plant availability.

The Spalding contract runs until 2021 and Centrica holds an option to extend the tolling arrangement for a further eight years, exercisable by 30 September 2020. If extended, Centrica is granted an option to purchase the station at the end of this further period. Management has determined that the arrangement should be accounted for as a finance lease, as the lease term was judged to be substantially all of the economic life of the power station and the present value of the minimum lease payments at the inception date of the arrangement amounted to substantially all of the fair value of the power station at that time.

Details of the interest charges, finance lease asset and finance lease payable are included in notes 8, 13 and 24 respectively.

As a result of the suspension of the UK Capacity Market, alongside reductions in forecast future peak spark spreads, an onerous contract provision has been recognised in relation to the Spalding contract. See note 7 for further details.

Spirit Energy consolidation and preference shares

During 2017, the Group acquired Bayerngas Norge's exploration and production business and combined this with the Group's existing Exploration & Production business to form Spirit Energy business (SE). The Group, through its board majority, can control decisions that represent Board Reserved Matters, which include the approval or amendment of the Business Plan or the Budget. The Directors consider that the right to approve or amend the Business Plan or Budget provides control over the relevant activities that most significantly influence the variable returns of the SE business. The Group, through its board majority, has power over this decision. Whilst SE has been established as an independent business, this is judged not to prevent the Group concluding that it controls SE. Additionally, Fundamental Reserved Matters, which require unanimous consent, are judged to represent minority protection rather than decision making rights associated with the relevant activities. Consequently, SE is fully consolidated with a non-controlling interest of 31%.

The Group and SWM Gasbeteiligungs GmbH & Co. KG hold preference shares in Spirit Energy Limited (the parent company of SE), the redemption and conversion rights of which have been reviewed by the Directors and in each case the redemption is at the discretion of the issuer. Whilst the agreements provide incentives for the Group to redeem these shares through the waiver of its dividend under certain circumstances, and the agreements indicate an intention to redeem, the Group has concluded that Spirit Energy Limited retains the discretion to avoid redemption and therefore the preference shares do not represent an obligation. Similarly, the conversion rights are at the discretion of Spirit Energy Limited and do not create an obligation. The preference shares pay a fixed coupon or dividend of 5.5% plus a floating element subject to a cap of 1.5%, and again despite the agreement stating a dividend policy and the intention to pay dividends, these remain at the discretion of the directors of Spirit

3. Critical accounting judgements and key sources of estimation uncertainty

Energy Limited. Accordingly, the preference shares are deemed to represent equity rather than a financial liability and therefore the 31% held by SWM Gasbeteiligungs GmbH & Co. KG forms part of the Group's non-controlling interest balance.

Energy Company Obligation

The Energy Company Obligation (ECO) order requires UK-licensed energy suppliers to improve the energy efficiency of domestic households. Targets are set in proportion to the size of historic customer bases. ECO phase 1 and ECO phase 2 had delivery dates of 31 March 2015 and 30 September 2018 (extended from 31 March 2017), respectively. ECO phase 3 is currently effective with a delivery date of 31 March 2022. Although this phase includes certain sub-obligations, there are no interim targets and, consistent with previous years, the Group continues to judge that it is not legally obligated by the order until delivery date. Accordingly, the costs of delivery are recognised as incurred, when cash has been spent or unilateral commitments made, resulting in obligations that could not be avoided.

Metering contracts

The Department for Business, Energy & Industrial Strategy has modified UK gas and electricity supply licences requiring all domestic premises to be fitted with compliant smart meters for measuring energy consumption by 31 December 2020. The Group has a number of existing rental contracts for non-compliant meters that include penalty charges if these meters are removed from use before the end of their deemed useful lives. The Group considers that these contracts are not onerous until the meters have been physically removed from use and, therefore, only recognises a provision for penalty charges at this point.

In 2015, as part of the smart meter roll-out, the Group renewed meter rental arrangements with third parties, with a further extension of one contract in 2018. The Group assessed that these were not leases because at inception of the contract there were no specified assets, the Group did not have the right to physically or operationally control the smart meters and other parties took more than an insignificant amount of the output from the assets.

LNG contracts

The Group is active in the liquified natural gas (LNG) market, both procuring long-term LNG supply arrangements, and transacting in shorter-term LNG cargoes. Contracts to buy and sell LNG are not considered to meet the definition of a derivative as there is currently no active market for LNG and accordingly, contracts are not capable of being net settled. As a result, they are accounted for on an accruals basis.

(b) Key sources of estimation uncertainty

Estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, including current and expected economic conditions, and, in some cases, actuarial techniques. Although these estimates and associated assumptions are based on management's best knowledge of current events and circumstances, actual results may differ.

Revenue recognition – unread gas and electricity meters

Revenue for energy supply activities includes an assessment of energy supplied to customers between the date of the last meter reading and the year end (known as unread revenue). Unread gas and electricity comprises both billed and unbilled revenue. It is estimated through the billing systems, using historical consumption patterns, on a customer-by-customer basis, taking into account weather patterns, load forecasts and the differences between actual meter readings being returned and system estimates. Actual meter readings continue to be compared to system estimates between the balance sheet date and the finalisation of the accounts.

An assessment is also made of any factors that are likely to materially affect the ultimate economic benefits that will flow to the Group, including bill cancellation and re-bill rates. Estimated revenue is restricted to the amount the Group expects to be entitled to in exchange for energy supplied. The judgements applied, and the assumptions underpinning these judgements, are considered to be appropriate. However, a change in these assumptions would have an impact on the amount of revenue recognised. Unbilled revenue recognised on the balance sheet within trade and other receivables at 31 December 2018 was £1,542 million (2017: £1,585 million).

Industry reconciliation process – cost of sales

Industry reconciliation procedures are required as differences arise between the estimated quantity of gas and electricity the Group deems to have supplied and billed customers, and the estimated quantity industry system operators deem the individual suppliers, including the Group, to have supplied to customers. The difference in deemed supply is referred to as imbalance. The reconciliation procedures can result in either a higher or a lower value of industry deemed supply than has been estimated as being supplied to customers by the Group, but in practice tends to result in a higher value of industry deemed supply. The Group reviews the difference to ascertain whether there is evidence that its estimate of amounts supplied to customers is inaccurate or whether the difference arises from other causes. The Group's share of the resulting imbalance is included within commodity costs charged to cost of sales. Management estimates the level of recovery of imbalance that will be achieved either through subsequent customer billing or through developing industry settlement procedures. The adjustments for imbalance at 31 December 2018 are not significant. Changes resulting from these management estimates can be material with adjustments of up to £30 million having been made in the last few years, although it could possibly be higher than these amounts in the future.

Decommissioning costs

The estimated cost of decommissioning at the end of the producing lives of gas and oil fields is reviewed periodically and is based on reserves, price levels and technology at the balance sheet date. Provision is made for the estimated cost of decommissioning at the balance sheet date. The payment dates of total expected future decommissioning costs are uncertain and dependent on the lives of the facilities, but are currently anticipated to be incurred until 2040.

The level of provision held is also sensitive to the discount rate used to discount the estimated decommissioning costs. The real discount rate used to discount the decommissioning liabilities at 31 December 2018 is unchanged at 1.2%. A 1% change in this discount rate would change the decommissioning by approximately £200 million.

Significant judgements and estimates are also made about the costs of decommissioning nuclear power stations and the costs of waste management and spent fuel. These estimates could impact the carrying value of our Nuclear investment. Various arrangements and indemnities are in place with the Secretary of State with respect to these costs, as explained in note S2.

3. Critical accounting judgements and key sources of estimation uncertainty

Gas and liquids reserves

The volume of proven and probable (2P) gas and liquids reserves is an estimate that affects the unit of production method of depreciating producing gas and liquids property, plant and equipment (PP&E) as well as being a significant estimate affecting decommissioning and impairment calculations. The factors impacting gas and liquids estimates, the process for estimating reserve quantities and reserve recognition is described on page 220.

The impact of a change in estimated 2P reserves is dealt with prospectively by depreciating the remaining book value of producing assets over the expected future production. If 2P reserves estimates are revised downwards, earnings could be affected by higher depreciation expense or an immediate write-down (impairment) of the asset's book value.

Determination of fair values – energy derivatives

Fair values of energy derivatives are estimated by reference in part to published price quotations in active markets and in part by using valuation techniques. More detail on the assumptions used in determining fair valuations of energy derivatives is provided in note S6 and of the sensitivities to these assumptions in note S3.

Impairment of long-lived assets

The Group has several material long-lived assets, which are assessed or tested for impairment at each reporting date in accordance with the Group's accounting policy as described in note 7. The Group makes judgements and estimates in considering whether the carrying amounts of these assets or cash generating units (CGUs) are recoverable. The key assets that are subjected to impairment tests are upstream Exploration & Production gas and oil assets, Nuclear investment (20% economic interest accounted for as an investment in associate) and goodwill, as detailed below.

Exploration & Production gas and oil assets

The recoverable amount of the Group's gas and oil assets is determined by discounting the post-tax cash flows expected to be generated by the assets over their lives taking into account those assumptions that market participants would consider when assessing fair value. The cash flows are derived from projected production profiles of each field, based predominantly on expected 2P reserves and take into account forward prices for gas and liquids over the relevant period. Where forward market prices are not available, prices are determined based on internal model inputs.

Exploration & Production gas and oil assets now include assets previously held as Storage facility assets within the segment formerly known as Centrica Storage.

Further details of the assumptions used in determining the recoverable amounts, the impairments and the impairment reversals booked during the year and sensitivity to the assumptions are provided in note 7.

Nuclear investment

The recoverable amount of the Nuclear investment is based on the value of the existing UK nuclear fleet operated by EDF. The existing fleet value is calculated by discounting pre-tax cash flows derived from the stations based on forecast power generation and power prices, whilst taking account of planned outages and the possibility of life extensions. An assumption that the UK Capacity Market remains suspended until September 2019, with a prospective resumption thereafter, did not lead to an impairment. Further details of the methodology and assumptions are provided in notes 7 and S2. Note that the Nuclear investment was not considered to be an asset held for sale as at the reporting date as its disposal was not deemed to be highly probable within one year.

Goodwill

Goodwill does not generate independent cash flows and accordingly is allocated at inception to specific CGUs or groups of CGUs for impairment testing purposes. The recoverable amounts of these CGUs are derived from estimates of future cash flows (as described in the asset classes above) and hence the goodwill impairment tests are also subject to these key estimates. The results of these tests may then be verified by reference to external market valuation data.

Further details on the goodwill balances and the assumptions used in determining the recoverable amounts are provided in notes 7, 15(b) and S2. Sensitivity to the assumptions is also found in note 7 for goodwill allocated to Exploration & Production CGUs.

Credit provisions for trade and other receivables

The methodology for determining provisions for credit losses on trade and other receivables and the level of such provision is set out in note 17. Although the provisions recognised are considered appropriate, the use of different assumptions or changes in economic conditions could lead to movements in the provisions and therefore impact the Group Income Statement.

Pensions and other post-employment benefits

The cost of providing benefits under defined benefit schemes is determined separately for each of the Group's schemes under the projected unit credit actuarial valuation method. Actuarial gains and losses are recognised in full in the period in which they occur. The key assumptions used for the actuarial valuation are based on the Group's best estimate of the variables that will determine the ultimate cost of providing post-employment benefits. The Group is permitted to recognise a pension scheme asset because it has an unconditional right to a refund on any winding up of the schemes or if gradual settlement of liabilities over time is assumed. Further details, including sensitivities to these assumptions, are provided in note 22.

Brexit

The Group has considered the potential impact of a no-deal Brexit as noted in the Strategic Report on page 44. Economists have suggested that a no-deal Brexit could lead to lower base interest rates and higher inflation, following a likely weakening of sterling against other currencies. This would have an impact on the Group's pension scheme discount rate assumptions (if high quality corporate bond yields follow base rates) and could change forward energy prices (particularly in sterling terms). The sensitivity of the Group's pension schemes to a change in key assumptions is disclosed in note 22. The sensitivity of a change in forward energy prices and the impact this would have on impairment of the Group's assets is disclosed in note 7. Macroeconomic impacts on existing trade receivable recoverability are expected to be immaterial but could have a greater impact on future trade receivable recoverability.

4. Segmental analysis

The Group's operating segments are those used internally by management to run the business and make decisions. The Group's operating segments are based on products and services. The operating segments are also the Group's reportable segments. The Group's results are discussed in the Business Review (pages 20 to 27).

(a) Segmental structure

The types of products and services from which each reportable segment derived its revenues during the year are detailed below:

Segment	Description
Centrica Consumer	
UK Home	(i) The supply of gas and electricity to residential customers in the UK; and (ii) the installation, repair and maintenance of domestic central heating, plumbing and drains, gas appliances and kitchen appliances, including the provision of fixed-fee maintenance/breakdown service and insurance contracts in the UK.
Ireland	(i) The supply of gas, electricity and energy management solutions to residential, commercial and industrial customers in the Republic of Ireland; (ii) power generation in the Republic of Ireland; and (iii) the repair and maintenance of domestic central heating in the Republic of Ireland.
North America Home	(i) The supply of gas and electricity to residential customers in North America; and (ii) the installation and maintenance of heating, ventilation and air conditioning (HVAC) equipment and water heaters and the provision of breakdown services, including the provision of fixed-fee maintenance/breakdown service and insurance contracts in North America.
Connected Home	The supply of new technologies and energy efficiency solutions to residential customers in all geographies in which the Group operates.
Centrica Business	
UK Business	The supply of gas and electricity and provision of energy-related services to business customers in the UK.
North America Business	(i) The supply of gas, electricity and energy-related services to business customers in North America; and (ii) procurement, trading and optimisation of energy in North America.
Distributed Energy & Power	The supply of energy efficiency solutions, flexible generation and new technologies to commercial and industrial customers in all geographies in which the Group operates. Flexible merchant generation is also provided to the UK system operator.
Energy Marketing & Trading	Trading and optimisation of energy.
Central Power Generation	Generation of power from the Spalding combined cycle gas turbine tolling contract and nuclear assets in the UK.
Exploration & Production	Production and processing of gas and oil and the development of new fields, principally within Spirit Energy, to maintain reserves in the UK and Europe. Following a reorganisation of the Group's reporting segments, the segment formerly known as Centrica Storage is now included as part of Exploration & Production. See note 1 for further details.

4. Segmental analysis

(b) Revenue

Gross segment revenue represents revenue generated from the sale of products and services to both third parties and to other reportable segments of the Group. Group revenue reflects only the sale of products and services to third parties. Sales between reportable segments are conducted on an arm's length basis.

Group revenue from contracts with customers reflects the value of revenue arising from contracts with customers in the scope of IFRS 15: 'Revenue from contracts with customers'. Revenue from other sources arises from contracts in the scope of other standards, for example IFRS 4: 'Insurance contracts' and IFRS 9: 'Financial instruments'.

	2018			2017 (restated) (i)		
Year ended 31 December	**Gross segment revenue £m**	**Less inter-segment revenue £m**	**Group revenue £m**	Gross segment revenue £m	Less inter-segment revenue £m	Group revenue £m
Centrica Consumer						
UK Home	**8,392**	**(6)**	**8,386**	8,536	(5)	8,531
Ireland	**907**	**–**	**907**	827	–	827
North America Home	**2,533**	**–**	**2,533**	2,722	–	2,722
Connected Home	**67**	**(23)**	**44**	42	(14)	28
	11,899	**(29)**	**11,870**	12,127	(19)	12,108
Centrica Business						
UK Business	**1,857**	**(1)**	**1,856**	1,830	(2)	1,828
North America Business	**8,820**	**–**	**8,820**	8,158	–	8,158
Distributed Energy & Power	**209**	**(2)**	**207**	183	(4)	179
Energy Marketing & Trading	**5,752**	**(196)**	**5,556**	4,766	(234)	4,532
Central Power Generation	**744**	**(230)**	**514**	622	(196)	426
	17,382	**(429)**	**16,953**	15,559	(436)	15,123
Exploration & Production	**2,121**	**(1,258)**	**863**	1,744	(940)	804
	31,402	**(1,716)**	**29,686**	29,430	(1,395)	28,035

(i) Revenue has been restated on transition to IFRS 15: 'Revenue from contracts with customers'. Segmental revenues have also been restated to reflect the new operating structure of the Group, under which the segment formerly known as Centrica Storage is shown as part of Exploration & Production. See note 1 for further details.

4. Segmental analysis

The table below shows the Group revenue arising from contracts with customers, and therefore in the scope of IFRS 15, and revenue arising from contracts in the scope of other standards.

	2018					2017				
Year ended 31 December	Revenue from contracts with customers in scope of IFRS 15 £m	Revenue arising on realisation of contracts in scope of IFRS 9 £m	Revenue from FFS and insurance contracts in scope of IFRS 4 £m	Revenue from leasing contracts in scope of IAS 17 £m	Group Revenue £m	Revenue from contracts with customers in scope of IFRS 15 £m	Revenue arising on realisation of contracts in scope of IFRS 9 £m	Revenue from FFS and insurance contracts in scope of IFRS 4 £m	Revenue from leasing contracts in scope of IAS 17 £m	Group Revenue (restated) (i) £m
Centrica Consumer										
UK Home	**7,370**	**–**	**1,016**	**–**	**8,386**	7,501	–	1,030	–	8,531
Ireland	**677**	**230**	**–**	**–**	**907**	632	195	–	–	827
North America Home	**2,415**	**–**	**118**	**–**	**2,533**	2,606	–	116	–	2,722
Connected Home	**44**	**–**	**–**	**–**	**44**	28	–	–	–	28
	10,506	**230**	**1,134**	**–**	**11,870**	10,767	195	1,146	–	12,108
Centrica Business										
UK Business	**1,445**	**403**	**8**	**–**	**1,856**	1,395	425	8	–	1,828
North America Business	**7,449**	**1,371**	**–**	**–**	**8,820**	6,919	1,239	–	–	8,158
Distributed Energy & Power	**206**	**–**	**–**	**1**	**207**	166	–	–	13	179
Energy Marketing & Trading	**1,521**	**4,035**	**–**	**–**	**5,556**	1,701	2,831	–	–	4,532
Central Power Generation	**6**	**508**	**–**	**–**	**514**	11	415	–	–	426
	10,627	**6,317**	**8**	**1**	**16,953**	10,192	4,910	8	13	15,123
Exploration & Production (ii)	**984**	**(121)**	**–**	**–**	**863**	736	68	–	–	804
	22,117	**6,426**	**1,142**	**1**	**29,686**	21,695	5,173	1,154	13	28,035

(i) Revenue has been restated on transition to IFRS 15: 'Revenue from contracts with customers'. Segmental revenues have also been restated to reflect the new operating structure of the Group, under which the segment formerly known as Centrica Storage is shown as part of Exploration & Production. See note 1 for further details.

(ii) In 2018 Exploration & Production Group revenue includes negative amounts arising on the realisation of out-of-the-money commodity swap contracts that fall within the scope of IFRS 9.

The Group applies the practical expedient in paragraph 121 of IFRS 15 and therefore does not disclose information related to the transaction price allocated to remaining performance obligations on the basis that the Group recognises revenue from the satisfaction of the performance obligations within energy supply contracts in accordance with Paragraph B16, as described at note 1.

4. Segmental analysis

Disaggregation of revenue and non-current assets

The key economic factors impacting the nature, timing and uncertainty of revenue and cash flows are considered to be driven by the type and broad geographical location of the customer. Therefore, revenue from contracts with customers has been disclosed by segment.

The only material exception to the above arises in the UK Home and North America Home segments, which include both energy supply revenue and services revenue. The split of revenue in the scope of IFRS 15 between these material sources is shown below.

	2018			2017		
Year ended 31 December	**Energy supply (i) £m**	**Energy services (ii) £m**	**Total £m**	Energy supply (i) £m	Energy services (ii) £m	Total £m
UK Home	**6,746**	**624**	**7,370**	6,902	599	7,501
North America Home	**2,079**	**336**	**2,415**	2,244	362	2,606

(i) Energy supply reflects revenue earned from the supply of gas and electricity to residential customers and excludes revenue earned from related services, such as meter installations.
(ii) Energy services revenue in the scope of IFRS 15 includes energy-related services detailed above and excludes contracts in the scope of IFRS 4.

The Group monitors and manages performance by reference to its operating segments and not solely on a geographical basis. However, provided below is an analysis of revenue and certain non-current assets by geography.

	Revenue (based on location of customer)		Non-current assets (based on location of assets) (i)	
Year ended 31 December	**2018 £m**	2017 (restated) (ii) £m	**2018 £m**	2017 (restated) (ii) £m
UK	**14,000**	13,506	**5,814**	5,849
Republic of Ireland	**841**	769	**124**	102
Germany	**772**	608	**–**	–
Norway	**605**	359	**1,768**	1,758
Rest of Europe	**1,707**	1,565	**470**	445
United States of America	**10,290**	9,591	**1,774**	1,663
Canada	**1,170**	1,411	**360**	378
Rest of the world	**301**	226	**8**	5
	29,686	28,035	**10,318**	10,200

(i) Non-current assets comprise goodwill, other intangible assets, PP&E, interests in joint ventures and associates and non-financial assets within trade and other receivables, and contract-related assets.
(ii) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

4. Segmental analysis

(c) Operating profit before and after taxation

The measure of profit used by the Group is adjusted operating profit. Adjusted operating profit is operating profit before exceptional items and certain re-measurements. This includes business performance results of equity-accounted interests before interest and taxation.

This note also details adjusted operating profit after taxation. Both measures are reconciled to their statutory equivalents.

	Adjusted operating profit/(loss)		Adjusted operating profit/(loss) after taxation	
Year ended 31 December	**2018 £m**	2017 (restated) (i) £m	**2018 £m**	2017 (restated) (i) £m
Centrica Consumer				
UK Home	**668**	819	**543**	674
Ireland	**44**	47	**39**	37
North America Home	**123**	114	**92**	69
Connected Home	**(85)**	(95)	**(71)**	(71)
	750	885	**603**	709
Centrica Business				
UK Business	**40**	4	**33**	5
North America Business	**81**	71	**60**	44
Distributed Energy & Power	**(81)**	(53)	**(65)**	(41)
Energy Marketing & Trading	**54**	104	**46**	87
Central Power Generation	**27**	35	**26**	47
	121	161	**100**	142
Exploration & Production	**521**	201	**149**	38
Adjusted operating profit	**1,392**	1,247	**852**	889
Share of joint ventures'/associates' interest and taxation	**–**	(7)		
Operating profit before exceptional items and certain re-measurements	**1,392**	1,240		
Exceptional items (note 7)	**(183)**	(884)		
Certain re-measurements included within gross profit (note 7)	**(200)**	153		
Re-measurements of certain associates' contracts (net of taxation) (note 7)	**(20)**	(28)		
Share of associates' exceptional operating cost (note 7)	**(2)**	–		
Total exceptional items and certain re-measurements included in operating profit	**(405)**	(759)		
Operating profit after exceptional items and certain re-measurements	**987**	481		

Year ended 31 December	**2018 £m**	2017 (restated) (i) £m
Adjusted operating profit after taxation [(ii)]	**852**	889
Impact of changes to corporate tax rates (note 9) [(iii)]	**–**	34
Corporate and other taxation, and interest (net of taxation) [(iv)]	**(194)**	(218)
Business performance profit for the year	**658**	705
Exceptional items and certain re-measurements (net of taxation) (note 7)	**(416)**	(407)
Statutory profit for the year	**242**	298

(i) Prior year comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. 2017 results have also been restated to reflect the change to the Group's operating structure, as a result of which the segment formerly known as Centrica Storage is now presented as part of Exploration & Production. See note 1 for further details.

(ii) Segment adjusted operating profit after taxation includes profit of £29 million (2017: £7 million) attributable to non-controlling interests.

(iii) The 2017 amount relates to a change to the US tax rate.

(iv) Includes joint ventures'/associates' interest, net of associated taxation.

4. Segmental analysis

(d) Included within adjusted operating profit

Presented below are certain items included within adjusted operating profit, including further details of impairments of property, plant and equipment and write-downs relating to exploration and evaluation assets.

	Share of results of joint ventures and associates before interest and taxation		Depreciation and impairments of property, plant and equipment		Amortisation, write-downs and impairments of intangibles	
Year ended 31 December	**2018 £m**	2017 (restated) (i) £m	**2018 £m**	2017 (restated) (i) £m	**2018 £m**	2017 (restated) (i) £m
Centrica Consumer						
UK Home	**–**	–	**(45)**	(51)	**(103)**	(108)
Ireland	**–**	–	**(4)**	(3)	**(8)**	(9)
North America Home	**–**	–	**(13)**	(13)	**(41)**	(50)
Connected Home	**–**	–	**(2)**	(1)	**(16)**	(11)
	–	–	**(64)**	(68)	**(168)**	(178)
Centrica Business						
UK Business	**–**	–	**(2)**	(2)	**(13)**	(12)
North America Business	**–**	–	**(8)**	(8)	**(36)**	(40)
Distributed Energy & Power	**–**	–	**(9)**	(8)	**(13)**	(8)
Energy Marketing & Trading	**–**	–	**(2)**	(1)	**(11)**	(10)
Central Power Generation	**3**	58	**–**	(10)	**–**	–
	3	58	**(21)**	(29)	**(73)**	(70)
Exploration & Production	**–**	–	**(639)**	(571)	**(59)**	(14)
Other [(ii)]	**–**	–	**(12)**	(5)	**(22)**	(9)
	3	58	**(736)**	(673)	**(322)**	(271)

(i) Segmental results have been restated to reflect the change to the Group's operating structure as a result of which the segment formerly known as Centrica Storage is now presented as part of Exploration & Production. See note 1 for further details.

(ii) The Other segment includes corporate functions, subsequently recharged.

Impairments of property, plant and equipment

During 2018, no impairments of property, plant and equipment were recognised in business performance. During 2017, a £2 million impairment charge was recognised in the Distributed Energy & Power segment. Considering its size and nature this impairment was recognised within business performance.

Write-downs and impairments of intangible assets

During 2018, £54 million of write-downs (2017: £9 million) relating to exploration and evaluation assets were recognised in the Exploration & Production segment. All such current and prior year write-downs were recognised within business performance as they were not deemed exceptional in nature.

4. Segmental analysis

(e) Capital expenditure

Capital expenditure represents additions, other than assets acquired as part of business combinations, to property, plant and equipment and intangible assets. Capital expenditure has been reconciled to the related cash outflow.

	Capital expenditure on property, plant and equipment (note 13)		Capital expenditure on intangible assets other than goodwill (note 15)	
Year ended 31 December	**2018 £m**	2017 (restated) (i) £m	**2018 £m**	2017 (restated) (i) £m
Centrica Consumer				
UK Home	**14**	69	**409**	398
Ireland	**21**	2	**12**	8
North America Home	**7**	18	**13**	5
Connected Home	**3**	4	**35**	31
	45	93	**469**	442
Centrica Business				
UK Business	**–**	1	**195**	190
North America Business	**8**	6	**288**	290
Distributed Energy & Power	**95**	106	**11**	9
Energy Marketing & Trading	**11**	3	**80**	77
Central Power Generation	**–**	28	**20**	–
	114	144	**594**	566
Exploration & Production	**367**	434	**118**	40
Other (ii)	**44**	36	**84**	36
Capital expenditure	**570**	707	**1,265**	1,084
Capitalised borrowing costs	**(14)**	(10)	**(4)**	–
Inception of new finance leases and movements in payables and prepayments related to capital expenditure	**18**	(87)	**(55)**	1
Purchases of emissions allowances and renewable obligation certificates	**–**	–	**(854)**	(813)
Net cash outflow (iii)	**574**	610	**352**	272

(i) Segmented results have been restated to reflect the change to the Group's operating structure as a result of which the segment formerly known as Centrica Storage is now presented as part of Exploration & Production. See note 1 for further details.

(ii) The Other segment includes corporate functions, subsequently recharged.

(iii) The cash outflow relating to intangible assets includes £114 million (2017: £41 million) relating to exploration and evaluation of gas and oil assets.

4. Segmental analysis

(f) Adjusted operating cash flow

Adjusted operating cash flow is used by management to assess the cash generating abilities of each segment. Adjusted operating cash flow is net cash flow from operating activities before payments relating to exceptional items, deficit payments to the UK defined benefit pension schemes, movements in variation margin and cash collateral that are included in net debt, but including dividends from joint ventures and associates. This measure is reconciled to the net cash flow from operating activities.

Year ended 31 December	**2018** **£m**	2017 (restated) (i) £m
Centrica Consumer		
UK Home	**805**	928
Ireland	**74**	62
North America Home	**187**	154
Connected Home	**(47)**	(121)
	1,019	1,023
Centrica Business		
UK Business	**62**	131
North America Business	**278**	87
Distributed Energy & Power	**(61)**	(30)
Energy Marketing & Trading	**(66)**	262
Central Power Generation	**50**	58
	263	508
Exploration & Production	**963**	509
Other	**–**	29
Adjusted operating cash flow	**2,245**	2,069
Dividends received from joint ventures and associates	**(22)**	(58)
UK pension deficit payments (note 22(g))	**(98)**	(131)
Payments relating to exceptional charges	**(248)**	(176)
Movements in margin and cash collateral included in net debt (note 24(c))	**57**	136
Net cash flow from operating activities	**1,934**	1,840

(i) Segmental results have been restated to reflect the change to the Group's operating structure as a result of which the segment formerly known as Centrica Storage is now presented as part of Exploration & Production. See note 1 for further details.

5. Costs of operations

This section details the types of costs the Group incurs and the number of employees in each of our operations.

(a) Analysis of costs by nature

	2018			2017		
Year ended 31 December	**Cost of sales £m**	**Operating costs £m**	**Total costs £m**	Cost of sales (restated) (i) £m	Operating costs £m	Total costs (restated) (i) £m
Transportation, distribution and metering costs	**(4,813)**	**–**	**(4,813)**	(5,039)	–	(5,039)
Commodity costs	**(17,305)**	**–**	**(17,305)**	(15,663)	–	(15,663)
Depreciation, amortisation, impairments and write-downs	**(661)**	**(397)**	**(1,058)**	(605)	(343)	(948)
Employee costs	**(689)**	**(1,270)**	**(1,959)**	(708)	(1,271)	(1,979)
Other direct costs	**(1,965)**	**(1,054)**	**(3,019)**	(1,983)	(1,102)	(3,085)
Costs included within Group operating profit before credit losses on financial assets	**(25,433)**	**(2,721)**	**(28,154)**	(23,998)	(2,716)	(26,714)
Impairment of trade receivables (note 17)	**–**	**(150)**	**(150)**	–	(137)	(137)
Recovery of previously fully impaired receivables	**–**	**7**	**7**	–	5	5
Credit losses on financial assets	**–**	**(143)**	**(143)**	–	(132)	(132)
Total costs included within Group operating profit before exceptional items and certain re-measurements	**(25,433)**	**(2,864)**	**(28,297)**	(23,998)	(2,848)	(26,846)
Exceptional items and certain re-measurements within Group operating profit (note 7)	**(200)**	**(183)**	**(383)**	153	(884)	(731)
Total costs within Group operating profit	**(25,633)**	**(3,047)**	**(28,680)**	(23,845)	(3,732)	(27,577)

(i) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

(b) Employee costs [(i)]

Year ended 31 December	**2018 £m**	2017 £m
Wages and salaries	**(1,579)**	(1,591)
Social security costs	**(151)**	(159)
Pension and other post-employment benefits costs	**(207)**	(201)
Share scheme costs (note S4)	**(43)**	(47)
	(1,980)	(1,998)
Capitalised employee costs	**21**	19
Employee costs recognised in the Group Income Statement	**(1,959)**	(1,979)

(i) Details of Directors' remuneration, share-based payments and pension entitlements in the Remuneration Report on pages 90 to 103 form part of these Financial Statements. Details of the remuneration of key management personnel are given in note S8.

(c) Average number of employees during the year

Year ended 31 December	**2018 Number**	2017 Number (restated) (i)
UK Home	**20,318**	22,158
Ireland	**219**	211
North America Home	**2,599**	3,122
Connected Home	**385**	363
UK Business	**1,874**	2,065
North America Business	**805**	770
Distributed Energy & Power	**1,090**	947
Energy Marketing & Trading	**470**	433
Central Power Generation	**–**	131
Exploration & Production [(i)]	**913**	1,054
Group Functions	**3,107**	3,647
	31,780	34,901

(i) Comparatives have been restated to reflect the change to the Group's operating structure as a result of which the segment formerly known as Centrica Storage is now presented as part of Exploration & Production. See note 1 for further details.

6. Share of results of joint ventures and associates

Share of results of joint ventures and associates represents the results of businesses where we exercise joint control or significant influence and generally have an equity holding of up to 50%.

(a) Share of results of joint ventures and associates

The Group's share of results of joint ventures and associates for the year ended 31 December 2018 principally arises from its interest in Nuclear - Lake Acquisitions Limited, an associate, reported in the Central Power Generation segment.

	2018			2017		
Year ended 31 December	**Share of business performance £m**	**Share of exceptional items and certain re-measurements £m**	**Share of results for the year £m**	Share of business performance £m	Share of exceptional items and certain re-measurements £m	Share of results for the year £m
Income	**489**	**–**	**489**	538	–	538
Expenses before exceptional items and certain re-measurements	**(486)**	**–**	**(486)**	(480)	–	(480)
Re-measurement of certain contracts	**–**	**(21)**	**(21)**	–	(29)	(29)
Exceptional items	**–**	**(2)**	**(2)**	–	–	–
Operating profit/(loss)	**3**	**(23)**	**(20)**	58	(29)	29
Financing costs	**(3)**	**–**	**(3)**	(1)	–	(1)
Taxation on profit/(loss)	**3**	**1**	**4**	(6)	1	(5)
Share of post-taxation results of joint ventures and associates	**3**	**(22)**	**(19)**	51	(28)	23

(b) Reconciliation of share of results of joint ventures and associates to share of adjusted results of joint ventures and associates

Year ended 31 December	**2018 £m**	2017 £m
Share of post-taxation results of joint ventures and associates	**(19)**	23
Certain re-measurements and exceptionals (net of taxation)	**22**	28
Financing costs	**3**	1
Taxation (excluding taxation on certain re-measurements and exceptionals)	**(3)**	6
Share of adjusted results of joint ventures and associates	**3**	58

Further information on the Group's investments in joint ventures and associates is provided in notes 14 and S10.

7. Exceptional items and certain re-measurements

Exceptional items are those items that, in the judgement of the Directors, need to be disclosed separately by virtue of their nature, size or incidence. Items which may be considered exceptional in nature include disposals of businesses or significant assets, business restructurings, significant onerous contract charges and releases, significant debt repurchase costs and asset write-downs/impairments and write-backs.

(a) Total exceptional items and certain re-measurements

Year ended 31 December	2018 £m	2017 £m
Exceptional items (Note 7(b)) (i)	**(324)**	(884)
Certain re-measurement (losses)/gains (Note 7(c)) (i)	**(220)**	125
Exceptional items and certain re-measurements before taxation	**(544)**	(759)

(i) Exceptional items and certain re-measurements include re-measurement losses of £20 million (2017: £28 million) and exceptional costs of £2 million (2017: nil) arising from the Group's equity accounted interests in joint ventures and associates.

(b) Exceptional items

Year ended 31 December	2018 £m	2017 £m
Net write-back/(impairment) of Exploration & Production assets (i)	**90**	(408)
Impairment of UK gas storage assets (ii)	**–**	(270)
Provision for onerous power procurement contract and impairment of UK power generation assets (iii)	**(62)**	–
Guaranteed minimum pension equalisation past service cost (iv)	**(43)**	–
Restructuring costs (v)	**(170)**	(88)
Business change costs	**–**	(56)
Loss on disposal of Exploration & Production businesses and material assets	**–**	(134)
Net gain on disposal of Central Power Generation businesses and assets	**–**	72
Exceptional items included within Group operating profit	**(185)**	(884)
Debt repurchase costs included within financing costs (vi)	**(139)**	–
Exceptional items included within Group operating profit before taxation	**(324)**	(884)
Net taxation on exceptional items (note 9)	**89**	408
Net exceptional items after taxation	**(235)**	(476)

(i) In the Exploration & Production segment both impairments and write-backs of assets have been booked relating to the value of certain UK and Norwegian gas and oil fields. Predominantly due to the impact of an increase in near-term liquid prices and a reduction in long-term price forecasts, together with forecast production profiles for specific fields, there has been a net write-back of £57 million (post-tax £57 million). Also included is the reduction of decommissioning provisions (pre-tax £33 million, post-tax £23 million) and the net write-back of a deferred tax asset associated with Exploration & Production investment allowance and PRT (post-tax £18m) related to assets previously impaired through exceptional items.

(ii) The segment formerly known as Centrica Storage is now presented as part of Exploration & Production. See note 1 for further details.

(iii) Following the suspension of the UK Capacity Market in November 2018 and reductions in clean spark spread price forecasts, an onerous contract provision of £44 million (post-tax £36 million) has been reflected in relation to the Spalding tolling contract in the Central Power Generation segment and a pre-tax impairment charge of £18 million (post-tax £15 million) has been recognised in relation to gas-fired power station assets in the Distributed Energy & Power segment. It has been assumed that the UK Capacity Market remains suspended until September 2019, with only prospective resumption thereafter. See note S2 for further detail and impairment assumptions.

(iv) On 26 October 2018, the High Court of Justice of England and Wales issued a judgment requiring equality of treatment for men and women in relation to Guaranteed Minimum Pension benefits in contracted-out UK pension schemes (for the period of 1978 to 1997). As a result of this judgment, the scheme liabilities have been recalculated and a past service cost of £41 million (post-tax £31 million) has been reflected in the Income Statement in relation to Centrica Group schemes and £2 million (post-tax £2 million) in relation to Nuclear associate schemes.

(v) Following the announcement of phase 2 of the Group's cost efficiency programme, the Group has incurred restructuring costs principally relating to redundancy, data migration, digitisation of the customer journey, business closures and other transformational activity. The post-tax impact was £136 million.

(vi) The Group's debt repurchase programme resulted in c. £1.1 billion of debt instruments being repurchased in advance of their maturity date. Due to the premium paid above existing carrying values and related swap realisations and transaction fees, a one-off Income Statement financing cost of £139 million (post-tax £113 million) has been incurred.

7. Exceptional items and certain re-measurements

(c) Certain re-measurements

Certain re-measurements are the fair value movements on energy contracts entered into to meet the future needs of our customers or to sell the energy produced from our upstream assets. These contracts are economically related to our upstream assets, capacity/off-take contracts or downstream demand, which are typically not fair valued, and are therefore separately identified in the current period and reflected in business performance in future periods when the underlying transaction or asset impacts the Group Income Statement.

Year ended 31 December	**2018** **£m**	2017 £m
Certain re-measurements recognised in relation to energy contracts:		
Net losses arising on delivery of contracts	**(127)**	(54)
Net (losses)/gains arising on market price movements and new contracts	**(73)**	207
Net re-measurements included within gross profit	**(200)**	153
Net losses arising on re-measurement of certain associates' contracts (net of taxation)	**(20)**	(28)
Net re-measurements included within Group operating profit	**(220)**	125
Taxation on certain re-measurements (note 9) [(i)]	**39**	(56)
Net re-measurements after taxation	**(181)**	69

(i) 2017 includes a £37 million charge due to the effect of changes in US tax rates.

(d) Impairment accounting policy, process and sensitivities

The Group tests the carrying amounts of goodwill, PP&E and intangible assets (with the exception of exploration assets – see note S2) for impairment annually, or more frequently if events or changes in circumstances indicate that the recoverable amounts may be lower than their carrying amounts. Interests in joint ventures and associates and exploration assets are reviewed annually for indicators of impairment and tested for impairment where such an indicator arises. Where an asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the CGU to which the asset belongs. The recoverable amount is the higher of value in use (VIU) and fair value less costs of disposal (FVLCD).

At inception, goodwill is allocated to each of the Group's CGUs or groups of CGUs that expect to benefit from the business combination in which the goodwill arose. If the recoverable amount of an asset (or CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or CGU) is reduced to its recoverable amount. Any impairment is expensed immediately in the Group Income Statement. Any CGU impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the CGU and then to the other assets of the CGU pro rata on the basis of the carrying amount of each asset in the CGU.

The impairment tests for the Exploration & Production gas and oil assets and CGUs (including goodwill) and the Distributed Energy & Power customer CGU (as detailed in note S2), have used FVLCD to determine their recoverable amounts. This methodology is deemed to be appropriate for these assets and CGUs as it is based on the post-tax cash flows arising from the underlying assets and is consistent with the approach taken by management to evaluate the economic value of the underlying assets. In 2017, this methodology also applied to the Group's associate investment in Nuclear; however, in the current year a VIU calculation has been used to determine the recoverable amount of this investment. Any future sales proceeds could be lower than this VIU. VIU calculations have also been used to determine recoverable amounts for all other CGUs that include goodwill, indefinite-lived intangible assets and UK power generation assets. For Nuclear, headroom exists at the year end. Were prices to fall by 10% over the asset lives an impairment of £365 million would ensue. Further details of the approach and assumptions used in the VIU calculations are provided in note S2.

FVLCD discount rate and cash flow assumptions

The price assumptions used to determine recoverable amounts for FVLCD calculations are based on the liquid market prices for the three-year period, 2019 to 2021. The average price for the period 2019 to 2023 was 53p per therm for NBP, US$62 per barrel for Brent, and £51 per MWh for baseload power (all in real terms). The long-term price assumptions thereafter are derived using valuation techniques based on available external data and with reference to market comparators.

7. Exceptional items and certain re-measurements

Exploration & Production assets

A net impairment write-back of £57 million (2017: write-off of £494 million), being a gross write-back of £127 million, offset by a gross write-off of £70 million, has been recorded within exceptional items for Exploration & Production assets alongside £33 million (2017: £86 million) from reductions in decommissioning provisions. For those assets subject to the net impairment write-backs, the associated recoverable amounts (net of decommissioning costs) of £820 million are categorised within Level 3 of the fair value hierarchy. FVLCD is determined by discounting the post-tax cash flows expected to be generated by the gas and oil production and development assets, net of associated selling costs, taking into account those assumptions that market participants would use in estimating fair value. Post-tax cash flows are derived from projected production profiles of each field, taking into account forward prices for gas and liquids over the relevant period. Where forward market prices are not available (that is outside the active period for each commodity), prices are determined based on internal model inputs. Note S6 provides additional detail on the active period of each of the commodity markets in which the Group operates. The date of cessation of production depends on the interaction of a number of variables, such as the recoverable quantities of hydrocarbons, production costs, the contractual duration of the licence area and the selling price of the gas and liquids produced. As each field has specific reservoir characteristics and economic circumstances, the post-tax cash flows for each field are computed using individual economic models. Post-tax cash flows used in the FVLCD calculation for the first five years are based on the Group's Board-approved business plans and strategic shape assumptions and, thereafter, are based on long-term production and cash flow forecasts, which management believes reflects the assumptions of a market participant.

The future post-tax cash flows are discounted using a post-tax nominal discount rate of 9.5% (2017: 8.5%) to determine the FVLCD. The discount rate and inflation rate used in the FVLCD calculation are determined in the same manner as the rates used in the VIU calculations described in note S2, with the exception of the adjustment required to determine an equivalent pre-tax discount rate.

The valuation of Exploration & Production assets and goodwill are particularly sensitive to the price assumptions made in the impairment calculations. To illustrate this, the price assumptions for gas and oil have been varied by +/–10%. Changes in price generate different production profiles and in some cases the date that an asset ceases production. This has been considered in the sensitivity analysis. Otherwise, all other operating costs, life of field capital expenditure and abandonment expenditure assumptions remain unchanged. For Exploration & Production assets, an increase in gas and oil prices of 10% would potentially reverse £128 million (2017: £224 million) of previous post-tax impairment charges of the exploration and production assets. A reduction of 10% would potentially give rise to further post-tax impairments of the underlying exploration and production assets of £97 million (2017: £160 million) but no post-tax impairment of goodwill (2017: nil) due to adequate headroom.

8. Net finance cost

Financing costs mainly comprise interest on bonds and bank debt, the results of hedging activities used to manage foreign exchange and interest rate movements on the Group's borrowings, and notional interest arising on discounting of decommissioning provisions and pensions. An element of financing cost is capitalised on qualifying projects.

Investment income predominantly includes interest received on short-term investments in money market funds, bank deposits, and government bonds.

	2018			2017		
Year ended 31 December	**Financing costs £m**	**Investment income £m**	**Total £m**	Financing costs £m	Investment income £m	Total £m
Cost of servicing net debt:						
Interest income	**–**	**20**	**20**	–	19	19
Interest cost on bonds, bank loans and overdrafts [(i)]	**(250)**	**–**	**(250)**	(289)	–	(289)
Interest cost on finance leases	**(12)**	**–**	**(12)**	(14)	–	(14)
	(262)	**20**	**(242)**	(303)	19	(284)
Net gains on revaluation [(ii)]	**–**	**7**	**7**	–	1	1
Notional interest arising from discounting	**(56)**	**–**	**(56)**	(71)	–	(71)
	(318)	**27**	**(291)**	(374)	20	(354)
Capitalised borrowing costs [(iii)]	**18**	**–**	**18**	10	–	10
Financing (cost)/income before exceptional items	**(300)**	**27**	**(273)**	(364)	20	(344)
Exceptional items (note 7(b)) [(i)]	**(139)**	**–**	**(139)**	–	–	–
(Cost)/income	**(439)**	**27**	**(412)**	(364)	20	(344)

[(i)] During 2018 the Group decreased its outstanding bond debt principal by £1,000 million and US$681 million, including £600 million and US$681 million as part of the debt repurchase programme. As a result of this programme an exceptional financing cost of £139 million (2017: nil) was recognised. See notes 7(b) and 24(d) for further details.

[(ii)] Includes gains and losses on fair value hedges, movements in fair value of other derivatives primarily used to hedge foreign exchange exposure associated with inter-company loans, and foreign currency gains and losses on the translation of inter-company loans.

[(iii)] Borrowing costs have been capitalised using an average rate of 4.75% (2017: 4.55%). Capitalised interest has attracted tax deductions totalling £3 million (2017: £8 million), with deferred tax liabilities being set up for the same amounts.

9. Taxation

The taxation note details the different tax charges and rates, including current and deferred tax arising in the Group. The current tax charge is the tax payable on this year's taxable profits together with amendments in respect of tax provisions made in earlier years. This tax charge excludes the Group's share of taxation on the results of joint ventures and associates. Deferred tax represents the tax on differences between the accounting carrying values of assets and liabilities and their tax bases. These differences are temporary and are expected to unwind in the future.

(a) Analysis of tax charge

	2018			2017		
Year ended 31 December	Business performance £m	Exceptional items and certain re-measurements £m	Results for the year £m	Business performance £m	Exceptional items and certain re-measurements £m	Results for the year £m
Current tax						
UK corporation tax	**(44)**	**49**	**5**	(50)	(20)	(70)
UK petroleum revenue tax	**50**	**–**	**50**	63	–	63
Non-UK tax	**(278)**	**9**	**(269)**	(35)	7	(28)
Adjustments in respect of prior years – UK[i]	**17**	**2**	**19**	29	(31)	(2)
Adjustments in respect of prior years – non-UK[i]	**(16)**	**1**	**(15)**	(10)	(2)	(12)
Total current tax	**(271)**	**61**	**(210)**	(3)	(46)	(49)
Deferred tax						
Origination and reversal of temporary differences – UK	**(70)**	**51**	**(19)**	(44)	169	125
UK petroleum revenue tax	**(1)**	**(14)**	**(15)**	(6)	207	201
Origination and reversal of temporary differences – non-UK	**(120)**	**32**	**(88)**	(255)	(23)	(278)
Change in tax rates	**–**	**–**	**–**	34	(37)	(3)
Adjustments in respect of prior years – UK[i]	**(11)**	**(3)**	**(14)**	57	90	147
Adjustments in respect of prior years – non-UK[i]	**12**	**1**	**13**	26	(8)	18
Total deferred tax	**(190)**	**67**	**(123)**	(188)	398	210
Total taxation on profit/(loss)[ii]	**(461)**	**128**	**(333)**	(191)	352	161

[i] The net adjustments in respect of prior years include uncertain tax provision charges of £13 million (2017: £49 million credit) and in 2017, deferred tax adjustments of £35 million charge/credit relating to the treatment of certain derivatives.

[ii] Total taxation on profit/(loss) excludes taxation on the Group's share of profits of joint ventures and associates.

UK tax rates

The Group carries out the majority of its activities in the UK. Most activities in the UK are subject to the standard rate for UK corporation tax, which for 2018 was 19% (2017: 19.25%). Upstream gas and oil production activities are taxed at a UK corporation tax rate of 30% (2017: 30%) plus a supplementary charge of 10% (2017: 10%) to give an overall rate of 40% (2017: 40%). In addition, certain upstream assets in the UK are under the petroleum revenue tax (PRT) regime, which has a current rate of 0% (2017: 0%), giving an overall effective rate of 40% (2017: 40%).

The UK corporation tax rate will reduce to 17% from 1 April 2020. At 31 December 2018, the relevant UK deferred tax assets and liabilities included in these consolidated Group Financial Statements were based on the reduced rate having regard to their reversal profiles.

Non-UK tax rates

Norwegian upstream profits are taxed at the standard rate of 23% (2017: 24%) plus a special tax of 55% (2017: 54%) resulting in an aggregate tax rate of 78% (2017: 78%). Profits earned in the US were taxed at a Federal rate of 21% (2017: 35%) together with state taxes at various rates dependent on the state. Taxation for other jurisdictions is calculated at the rate prevailing in those respective jurisdictions, with rates ranging from 12.5% in the Republic of Ireland to 50% in the Netherlands. The tax charges were not material in such jurisdictions.

Prior year adjustments reflect changes made to estimates or to judgements when further information becomes available.

Movements in deferred tax liabilities and assets are disclosed in note 16.

Tax on items taken directly to equity is disclosed in note S4.

9. Taxation

(b) Factors affecting the tax charge

The Group is expected to continue carrying out the majority of its business activities in the UK and accordingly considers the standard UK rate to be the appropriate reference rate.

The differences between the total taxation shown above and the amount calculated by applying the standard rate of UK corporation tax to the profit/(loss) before taxation are as follows:

	2018			2017		
Year ended 31 December	**Business performance £m**	**Exceptional items and certain re-measurements £m**	**Results for the year £m**	Business performance (restated) [i] £m	Exceptional items and certain re-measurements £m	Results for the year (restated) [i] £m
Profit/(loss) before taxation	**1,119**	**(544)**	**575**	896	(759)	137
Less: share of (losses)/profits in joint ventures and associates, net of interest and taxation	**(3)**	**22**	**19**	(51)	28	(23)
Group profit/(loss) before taxation	**1,116**	**(522)**	**594**	845	(731)	114
Tax on profit at standard UK corporation tax rate of 19% (2017: 19.25%)	**(212)**	**99**	**(113)**	(163)	141	(22)
Effects of:						
Depreciation/impairment on non-qualifying assets (including write-backs)	**(34)**	**(3)**	**(37)**	(51)	(3)	(54)
Other non-allowable/non-taxable items	**(1)**	**(2)**	**(3)**	4	5	9
Higher rates applicable to upstream profits/losses	**(269)**	**6**	**(263)**	(149)	96	(53)
Upstream investment incentives	**47**	**33**	**80**	43	–	43
UK petroleum revenue tax	**25**	**(7)**	**18**	34	124	158
Non-UK tax rates [ii]	**(27)**	**4**	**(23)**	(35)	(14)	(49)
Movement in uncertain tax provisions	**(12)**	**–**	**(12)**	34	–	34
Movement in unrecognised deferred tax assets	**5**	**1**	**6**	(2)	(4)	(6)
Differences in deferred tax reversal rates	**2**	**(4)**	**(2)**	7	(5)	2
Changes to tax rates	**–**	**–**	**–**	34	(37)	(3)
Adjustments in respect of prior years [iii]	**15**	**1**	**16**	53	49	102
Taxation on profit/(loss)	**(461)**	**128**	**(333)**	(191)	352	161
Less: movement in deferred tax	**190**	**(67)**	**123**	188	(398)	(210)
Total current tax	**(271)**	**61**	**(210)**	(3)	(46)	(49)

[i] Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.
[ii] Excludes additional non-UK tax applicable to upstream profits, notably in Norway.
[iii] Excludes a charge included in movement in uncertain tax provisions that relates to prior years of £13 million (2017: £49 million credit).

The Group is subject to taxation in a number of jurisdictions. The complexity of applicable rules may result in legitimate differences of interpretation between the Group and taxing authorities (or between different taxing authorities) especially where an economic judgement or valuation is involved. Resolution of these differences typically takes many years. The uncertain tax provisions represent multiple layers of estimation for different time periods and different jurisdictions.

The principal element relates to transfer pricing challenges in jurisdictions outside the UK. While the Group applies the arm's length principle to all intra-group transactions, taking OECD guidance into account, taxing authorities may take different views. The outcome of resolving any disputes is not predictable; the provisions represent management's assessment of the most likely outcome of each issue. The assessment is reviewed and updated on a regular basis.

(c) Factors that may affect future tax charges

The Group's effective tax rates are impacted by changes to the mix of activities and production across the territories in which it operates. Effective tax rates may also fluctuate where profits and losses cannot be offset for tax purposes, such as in the UK where there is generally no offset between upstream gas and oil and downstream results. Losses realised in one territory cannot be offset against profits in another.

The Group's UK profits earned away from gas and oil production will benefit from reduced rates of corporation tax:17% from 1 April 2020.

Profits from gas and oil production in the UK continue to be taxed at rates above the UK statutory rate (40% versus 19%). PRT is now set at 0% but may still give rise to historic refunds from the carry-back of excess reliefs (for example, from decommissioning).

Income earned in territories outside the UK, particularly in Norway, is generally subject to higher effective rates of tax than the current UK statutory rate.

The Group's US profits are subject to a Federal rate of 21% plus applicable state taxes.

Globally, tax reform has significant potential to change tax charges, particularly in relation to the OECD's Base Erosion and Profit Shifting (BEPS) project, which has widespread support. Based on current proposals, the Group does not expect its tax position to be impacted materially.

9. Taxation

Local tax laws and rates are subject to change, which may have a significant impact on the Group's future tax charges.

In the medium term, the Group's effective tax rate is expected to remain above the UK statutory rate, reflecting higher rates applicable to profits earned outside the UK. The mix of upstream/downstream activities across regimes continues to be influential on the effective tax rate.

(d) Relationship between current tax charge and taxes paid

	2018			2017		
Year ended 31 December	UK £m	Non-UK £m	**Total** **£m**	UK £m	Non-UK £m	Total £m
Current tax (credit)/charge:						
Corporation tax	(24)	284	**260**	72	40	112
Petroleum revenue tax	(50)	–	**(50)**	(63)	–	(63)
	(74)	**284**	**210**	9	40	49
Taxes paid(refunded):						
Corporation tax	18	99	**117**	(72)	190	118
Petroleum revenue tax	(56)	–	**(56)**	(16)	–	(16)
	(38)	**99**	**61**	(88)	190	102

Differences between current tax charged and taxes paid arose principally due to the following factors:

- Corporation tax payments are generally made by instalment, based on estimated taxable profits, or the prior period's profits. Payments are made on account and the final liability is settled as the tax return is filed. Fluctuations in profits from year to year, one-off items and mark-to-market movements within the year may therefore give rise to divergence between the charge for the year and the taxes paid. In certain jurisdictions advance tax payments are required (based on estimated tax liabilities) which can result in overpayments. These are included as tax assets, to be refunded in a subsequent period (2017 and 2018 saw net refunds in the UK); and
- PRT refunds are based on results in the preceding, six monthly, PRT period, therefore PRT cash movements will reflect refunds on a six-month delay.

10. Earnings per ordinary share

Earnings per share (EPS) is the amount of profit or loss attributable to each share. Basic EPS is the amount of profit or loss for the year divided by the weighted average number of shares in issue during the year. Diluted EPS includes the impact of outstanding share options.

Basic earnings per ordinary share has been calculated by dividing the profit attributable to equity holders of the Company for the year of £183 million (2017: £328 million) by the weighted average number of ordinary shares in issue during the year of 5,623 million (2017: 5,537 million). The number of shares excludes 40 million ordinary shares (2017: 53 million), being the weighted average number of the Company's own shares held in the employee share trust and treasury shares purchased by the Group as part of the share repurchase programme.

The Directors believe that the presentation of adjusted basic earnings per ordinary share, being the basic earnings per ordinary share adjusted for certain re-measurements and exceptional items assists with understanding the underlying performance of the Group, as explained in note 2.

In addition to basic and adjusted basic earnings per ordinary share, information is presented for diluted and adjusted diluted earnings per ordinary share. Under this presentation the weighted average number of shares used as the denominator is adjusted for potentially dilutive ordinary shares.

Weighted average number of shares

Year ended 31 December	**2018** **Million** **shares**	2017 Million shares
Weighted average number of shares – basic	**5,623**	5,537
Dilutive impact of share-based payment schemes [(i)]	**48**	42
Weighted average number of shares – diluted	**5,671**	5,579

(i) The dilutive impact of share-based payment schemes is included in the calculation of diluted EPS, unless it has the effect of increasing the profit or decreasing the loss attributable to each share.

10. Earnings per ordinary share

Basic to adjusted basic earnings per share reconciliation

	2018		2017 (restated) (i)	
Year ended 31 December	£m	Pence per ordinary share	£m	Pence per ordinary share
Earnings – basic	**183**	**3.3**	328	5.9
Net exceptional items after taxation (notes 2 and 7) (ii)	**266**	**4.7**	435	7.9
Certain re-measurement losses/(gains) after taxation (notes 2 and 7) (ii)	**182**	**3.2**	(70)	(1.3)
Earnings – adjusted basic	**631**	**11.2**	693	12.5
Earnings – diluted	**183**	**3.2**	328	5.9
Earnings – adjusted diluted	**631**	**11.1**	693	12.4

(i) 2017 comparatives have been restated on adoption of IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

(ii) Net exceptional loss after taxation of £235 million (2017: £476 million) is increased by £31 million (2017: reduced by £41 million) for the purpose of calculating adjusted basic and adjusted diluted EPS. The adjustment reflects the share of net exceptional items attributable to non-controlling interests. Similarly, certain re-measurement losses of £181 million (2017: £69 million gains) are increased by £1 million (2017: £1 million) to reflect the share of net re-measurement losses attributable to non-controlling interests.

11. Dividends

Dividends represent the return of profits to shareholders and are paid twice a year, in June and November. Dividends are paid as an amount per ordinary share held. The Group retains part of the profits generated to meet future investment plans or to fund share repurchase programmes.

	2018			2017		
	£m	Pence per share	Date of payment	£m	Pence per share	Date of payment
Prior year final dividend (i)	**470**	**8.40**	**28 Jun 2018**	459	8.40	29 Jun 2017
Interim dividend	**203**	**3.60**	**22 Nov 2018**	202	3.60	30 Nov 2017
	673			661		

(i) Included within the prior year final dividend are forfeited dividends of £1 million (2017: £2 million) older than 12 years that were written back in accordance with Group policy.

The Directors propose a final dividend of 8.40 pence per ordinary share (totalling £479 million) for the year ended 31 December 2018. The dividend will be submitted for formal approval at the Annual General Meeting to be held on 13 May 2019 and, subject to approval, will be paid on 27 June 2019 to those shareholders registered on 10 May 2019.

The Company offers a scrip dividend alternative to its shareholders. £47 million of the £470 million prior year final dividend was in the form of ordinary shares to shareholders opting in to the scrip dividend alternative. The market value per share at the date of payment was £1.46 per share resulting in the issue of 32 million new shares and £45 million of share premium.

Similarly, £78 million of the £203 million interim dividend was taken as a scrip dividend. The market value per share at the date of payment was £1.46 resulting in the issue of 53 million new shares and £74 million of share premium.

The Group has sufficient distributable reserves to pay dividends to its ultimate shareholders. Distributable reserves are calculated on an individual legal entity basis and the ultimate parent company, Centrica plc, currently has adequate levels of realised profits within its retained earnings to support dividend payments. Refer to the Centrica plc Company Balance Sheet on page 210. At 31 December 2018, Centrica plc's company-only distributable reserves were c.£2.7 billion. On an annual basis, the distributable reserve levels of the Group's subsidiary undertakings are reviewed and dividends paid up to Centrica plc to replenish its reserves.

12. Acquisitions and disposals

This section details acquisitions and disposals made by the Group.

(a) 2018 business combinations and asset acquisitions

On 28 February 2018 the Group acquired NJR Retail Services Company for cash consideration of US$24 million (£17 million) of which US$13 million (£10 million) was deferred. The provisional fair value of assets and liabilities acquired was US$18 million (£13 million) resulting in goodwill of US$6 million (£4 million).

On 1 July 2018 the Group acquired North American mid-continent retail operations from BP Canada Energy Marketing Corporation constituting a business for cash consideration of US$39 million (£31 million). The provisional fair value of assets and liabilities acquired was US$18 million (£15 million) resulting in goodwill of US$21 million (£16 million).

On 27 November 2018, the Group acquired T.A. Kaiser Heating and Air Inc. for cash consideration of US$19 million (£15 million). The provisional fair value of assets and liabilities acquired was US$19 million (£15 million).

On 31 December 2018 the Group acquired certain retail power operations from Source Power & Gas Business LLC. As this transaction was accounted for as an asset acquisition, cash consideration of US$26 million (£21 million) was allocated to the assets acquired.

£18 million of deferred consideration was paid in respect of the Bord Gáis acquisition.

Acquisition-related costs have been charged to 'operating costs before exceptional items and credit losses on financial assets' in the Group Income Statement for an aggregated amount of £1 million.

Pro forma information

The pro forma consolidated results of the Group, assuming the acquisitions had been made at the beginning of the year, would not be materially different.

(b) 2017 business combinations – measurement period adjustments

During the year, there have been no material updates to the fair value of assets and liabilities recognised for businesses acquired in 2017.
In 2017 the Group's existing Exploration & Production business was combined with Bayerngas Norge AS with the Group owning 69% of the newly formed business, Spirit Energy Limited. During 2018, goodwill in respect of this acquisition increased by £4 million and other assets by £18 million with corresponding adjustments to other equity (£8 million) and non-controlling interests (£14 million). Goodwill in respect of other prior year acquisitions increased by £2 million.

(c) Disposals

All disposals undertaken by the Group during the year were immaterial, both individually and in aggregate. None of these disposals are material enough to be shown as discontinued operations on the face of the Group Income Statement as they do not represent a separate major line of business or material geographical area of operations.

13. Property, plant and equipment

PP&E includes significant investment in power stations and gas and liquid production assets. Once operational, all assets are depreciated over their useful lives.

(a) Carrying amounts

	2018					2017				
	Land and buildings £m	Plant, equipment and vehicles £m	Power generation £m	Gas production and storage £m	**Total £m**	Land and buildings £m	Plant, equipment and vehicles £m	Power generation £m	Gas production and storage £m	Total £m
Cost										
1 January	64	566	950	15,428	**17,008**	40	667	1,856	16,571	19,134
Additions and capitalised borrowing costs (note 4(e))	10	79	114	367	**570**	27	115	134	431	707
Acquisitions	–	2	–	3	**5**	–	3	–	761	764
Disposals/retirements [i]	–	(84)	(8)	–	**(92)**	–	(198)	(2)	(10)	(210)
Transfers	–	–	–	36	**36**	–	–	–	–	–
Transfers to disposal groups held for sale [ii]	–	–	–	(427)	**(427)**	–	(11)	(1,041)	(2,301)	(3,353)
Decommissioning liability revisions and additions (note 21)	–	–	2	44	**46**	–	4	1	86	91
Exchange adjustments	1	5	1	25	**32**	(3)	(14)	2	(110)	(125)
31 December	**75**	**568**	**1,059**	**15,476**	**17,178**	64	566	950	15,428	17,008
Accumulated depreciation and impairment										
1 January	21	179	761	11,915	**12,876**	17	298	1,454	12,067	13,836
Charge for the year	2	86	10	638	**736**	2	85	16	568	671
Impairments/(write-backs)	–	–	18	(105)	**(87)**	–	1	(13)	848	836
Disposals/retirements [i]	–	(57)	(7)	–	**(64)**	–	(191)	(2)	(2)	(195)
Transfers to disposal groups held for sale [ii]	–	–	–	(427)	**(427)**	–	(7)	(697)	(1,516)	(2,220)
Exchange adjustments	–	3	–	17	**20**	2	(7)	3	(50)	(52)
31 December	**23**	**211**	**782**	**12,038**	**13,054**	21	179	761	11,915	12,876
NBV at 31 December	**52**	**357**	**277**	**3,438**	**4,124**	43	387	189	3,513	4,132

(i) Included within plant, equipment and vehicles disposals/retirements in 2017 are £106 million of gross assets in UK Home and £66 million in North America Business with a net book value of zero that have been retired.

(ii) North Sea Exploration & Production assets, with a net book value of zero, were transferred to held for sale and disposed of during the year.

(b) Assets in the course of construction included in above carrying amounts

31 December	**2018 £m**	2017 £m
Plant, equipment and vehicles	**45**	49
Gas production	**605**	652
Power generation	**99**	100

13. Property, plant and equipment

(c) Assets held under finance leases and to which title was restricted included in above carrying amounts

	2018				2017			
	Plant, equipment and vehicles £m	Power generation £m	Gas production and storage £m	Total £m	Plant, equipment and vehicles £m	Power generation £m	Gas production and storage £m	Total £m
Cost at 1 January	132	469	415	1,016	80	469	415	964
Additions	36	–	–	36	53	–	–	53
Disposals	(5)	–	–	(5)	(1)	–	–	(1)
Cost at 31 December	163	469	415	1,047	132	469	415	1,016
Accumulated depreciation at 1 January	23	469	399	891	9	469	398	876
Charge for the year	24	–	15	39	14	–	1	15
Disposals	(2)	–	–	(2)	–	–	–	–
Accumulated depreciation at 31 December	45	469	414	928	23	469	399	891
NBV at 31 December	118	–	1	119	109	–	16	125

14. Interests in joint ventures and associates

Investments in joint ventures and associates represent businesses where we exercise joint control or significant influence and generally have an equity holding of up to 50%. These include the investment in Lake Acquisitions Limited, which owns the existing EDF UK nuclear power station fleet.

(a) Interests in joint ventures and associates

	2018	2017
	Investments in joint ventures and associates £m	Investments in joint ventures and associates £m
1 January	1,699	1,697
Additions	3	6
Disposals	–	(4)
Share of (loss)/profit for the year	(19)	23
Share of other comprehensive (loss)/income	(1)	43
Impairment [(i)]	–	(4)
Dividends [(ii)]	(22)	(60)
Exchange adjustments	1	(2)
31 December	1,661	1,699

(i) In 2017 this includes an impairment of shareholder loans of £1 million, subsequently disposed.

(ii) In 2017 a non-cash £2 million tax credit was received in lieu of payment of a dividend.

(b) Share of joint ventures' and associates' assets and liabilities

	2018			2017
31 December	Associates Nuclear £m	Other £m	Total £m	Total £m
Share of non-current assets	3,800	11	3,811	3,689
Share of current assets	647	13	660	701
	4,447	24	4,471	4,390
Share of current liabilities	(134)	(5)	(139)	(140)
Share of non-current liabilities	(2,082)	–	(2,082)	(1,962)
	(2,216)	(5)	(2,221)	(2,102)
Cumulative impairment	(586)	(3)	(589)	(589)
Interests in joint ventures and associates	1,645	16	1,661	1,699
Net cash included in share of net assets	83	–	83	84

Further information on the Group's investments in joint ventures and associates is provided in notes 6 and S10.

15. Other intangible assets and goodwill

The Group Balance Sheet contains significant intangible assets. Goodwill, customer relationships and brands usually arise when we acquire a business. Goodwill is attributable to enhanced geographical presence, cost savings, synergies, growth opportunities, the assembled workforce and also arises from items such as deferred tax. Goodwill is not amortised but is assessed for recoverability each year.

The Group uses European Union Allowances (EUAs) and Renewable Obligation Certificates/Renewable Energy Certificates (ROCs/RECs) to satisfy its related obligations.

Upstream exploration and evaluation expenditure is capitalised as an intangible asset until development of the asset commences, at which point it is transferred to PP&E or is deemed not commercially viable and is written down.

(a) Carrying amounts

	2018						2017					
	Customer relation-ships and brands £m	Application software (i) (ii) £m	EUA/ ROC/RECs £m	Exploration and evaluation expenditure £m	Goodwill £m	**Total £m**	Customer relation-ships and brands £m	Application software (i) (ii) £m	EUA/ ROC/RECs £m	Exploration and evaluation expenditure £m	Goodwill £m	Total £m
Cost												
1 January	749	1,570	323	324	3,212	**6,178**	804	1,581	311	425	3,321	6,442
Additions and capitalised borrowing costs (note 4(e))	12	281	854	118	–	**1,265**	–	230	813	41	–	1,084
Acquisitions (iii)	33	(7)	–	–	26	**52**	2	16	–	42	154	214
Disposals/retirements and surrenders (iv)	–	(26)	(869)	–	–	**(895)**	(6)	(226)	(786)	(2)	–	(1,020)
Write-downs	–	–	–	(102)	–	**(102)**	–	–	–	(21)	–	(21)
Transfers	–	–	–	(36)	–	**(36)**	–	–	–	–	–	–
Transfers to disposal groups held for sale (v)	–	–	–	–	–	**–**	–	(6)	–	(153)	(133)	(292)
Exchange adjustments	36	19	13	–	60	**128**	(51)	(25)	(15)	(8)	(130)	(229)
31 December	**830**	**1,837**	**321**	**304**	**3,298**	**6,590**	749	1,570	323	324	3,212	6,178
Accumulated amortisation												
1 January	514	659	–	117	562	**1,852**	496	695	2	159	707	2,059
Amortisation (vi)	52	216	–	–	–	**268**	65	197	–	–	–	262
Disposals/retirements and surrenders (iv)	–	(23)	–	–	–	**(23)**	(6)	(223)	(2)	–	–	(231)
Transfers to disposal groups held for sale (v)	–	–	–	–	–	**–**	–	(6)	–	(42)	(133)	(181)
Exchange adjustments	30	7	–	–	–	**37**	(41)	(4)	–	–	(12)	(57)
31 December	**596**	**859**	**–**	**117**	**562**	**2,134**	514	659	–	117	562	1,852
NBV at 31 December	**234**	**978**	**321**	**187**	**2,736**	**4,456**	235	911	323	207	2,650	4,326

(i) Application software includes assets under construction with a cost of £302 million (2017: £250 million).

(ii) The remaining amortisation period of material application software assets, which had a carrying value of £260 million (2017: £206 million), is between five and eight years.

(iii) Includes assets acquired in business combinations in the year, and measurement period adjustments made to assets acquired in prior year business combinations.

(iv) During 2017 included within disposals/retirements and surrenders are £226 million of gross assets that have been retired and have a net book value of zero.

(v) Transfers to disposal groups held for sale in 2017 are in respect of the Canadian exploration and production business and the Langage and Humber CCGT power stations.

(vi) Amortisation of £268 million (2017: £261 million) has been recognised in operating costs before exceptional items. In 2017 an amortisation charge of £1 million was recognised in cost of sales before exceptional items.

15. Other intangible assets and goodwill

(b) Carrying amount of goodwill and intangible assets with indefinite useful lives allocated to CGUs

Goodwill acquired through business combinations, and indefinite-lived intangible assets, have been allocated for impairment testing purposes to individual CGUs or groups of CGUs, each representing the lowest level within the Group at which the goodwill or indefinite-lived intangible asset is monitored for internal management purposes.

		2018			2017		
31 December	Principal acquisitions to which goodwill and intangibles with indefinite useful lives relate	**Carrying amount of goodwill £m**	**Carrying amount of indefinite-lived intangible assets (i) £m**	**Total £m**	Carrying amount of goodwill £m	Carrying amount of indefinite-lived intangible assets (i) £m	Total £m
CGUs							
Centrica Consumer:							
UK Home	AlertMe/Dyno-Rod	**63**	**57**	**120**	63	57	120
Ireland	Bord Gáis Energy	**16**	**–**	**16**	16	–	16
North America Home	Direct Energy/ATCO/CPL/WTU/FCP/Bounce/Residential Services Group/Clockwork/Astrum Solar	**1,061**	**14**	**1,075**	1,029	14	1,043
Connected Home	AlertMe/FlowGem	**31**	**–**	**31**	31	–	31
Centrica Business:							
UK Business	Enron Direct/Electricity Direct	**181**	**–**	**181**	181	–	181
North America Business	Direct Energy/ATCO/Strategic Energy/FCP/HEM	**567**	**–**	**567**	524	–	524
Distributed Energy & Power	ENER-G/Panoramic Power/REstore	**174**	**–**	**174**	169	–	169
Energy Marketing & Trading	Neas Energy	**151**	**–**	**151**	150	–	150
Exploration & Production:							
UK/Norway/Netherlands	Newfield/Heimdal/Venture/Bayerngas	**492**	**–**	**492**	487	–	487
		2,736	**71**	**2,807**	2,650	71	2,721

(i) The indefinite-lived assets mainly relate to the Mr Sparky and Benjamin Franklin brands acquired as part of the Clockwork business combination, and the Dyno-Rod brand.

Further details regarding assumptions used in the impairment tests of CGUs with goodwill or indefinite-lived intangible assets allocated to them are provided in note S2. Sensitivities to these assumptions for goodwill allocated to the Exploration & Production CGU are provided in note 7(d).

16. Deferred tax assets and liabilities

Deferred tax is an accounting adjustment to provide for tax that is expected to arise in the future as a result of differences in the accounting and tax bases of assets and liabilities. The principal deferred tax assets and liabilities recognised by the Group relate to capital investments, decommissioning assets and provisions, tax losses, fair value movements on derivative financial instruments, PRT and pensions.

	Accelerated tax depreciation (corporation tax) £m	Net decommissioning (i) £m	Losses carried forward (ii) £m	Other timing differences (restated) (iii) £m	Marked to market positions £m	Net deferred PRT (iv) £m	Retirement benefit obligation and other provisions £m	Total (restated) (iii) £m
1 January 2017 (restated) (iii)	(1,045)	901	303	(41)	(141)	15	118	110
Credit/(charge) to income – change in tax rates	14	–	–	20	(37)	–	–	(3)
Credit/(charge) to income – other	130	(57)	(235)	172	100	121	(18)	213
(Charge)/credit to equity	–	–	–	(1)	1	–	(38)	(38)
Acquisition/disposal of businesses	(150)	28	221	(7)	–	–	–	92
Transfer of deferred tax liabilities to disposal groups held for sale	127	–	–	(97)	–	–	–	30
Exchange and other adjustments	(7)	(8)	46	(38)	(3)	–	–	(10)
31 December 2017	(931)	864	335	8	(80)	136	62	**394**
(Charge)/credit to income	(115)	16	(12)	(29)	40	(9)	(14)	**(123)**
Credit/(charge) to equity	–	–	–	1	(2)	–	(135)	**(136)**
Acquisition/disposal of businesses	(5)	–	–	–	–	–	–	**(5)**
Exchange and other adjustments	(5)	–	–	24	(1)	–	–	**18**
31 December 2018	**(1,056)**	**880**	**323**	**4**	**(43)**	**127**	**(87)**	**148**

(i) Net decommissioning includes deferred tax assets of £1,215 million (2017: £1,233 million) in respect of decommissioning provisions.
(ii) The losses arise principally from accelerated allowances for upstream investment expenditure, for which equivalent deferred tax liabilities are included under accelerated tax depreciation.
(iii) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.
(iv) The deferred PRT amounts include the effect of deferred corporation tax as PRT is chargeable to corporation tax.

Certain deferred tax assets and liabilities have been offset where there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes relate to the same fiscal authority. The following is an analysis of the gross deferred tax balances and associated offsetting balances for financial reporting purposes:

	2018		2017	
31 December	**Assets £m**	**Liabilities £m**	Assets £m	Liabilities (restated) (i) £m
Gross deferred tax balances	**2,029**	**(1,881)**	2,231	(1,837)
Offsetting deferred tax balances	**(1,497)**	**1,497**	(1,663)	1,663
Net deferred tax balances (after offsetting for financial reporting purposes)	**532**	**(384)**	568	(174)

(i) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

Deferred tax assets arise principally on decommissioning provisions, trading losses carried forward, retirement benefit obligations and marked to market positions. Forecasts indicate that there will be suitable taxable profits to utilise those deferred tax assets not offset against deferred tax liabilities. Specific legislative provisions applicable to gas and oil production provide assurance that deferred tax assets relating to decommissioning costs and certain trading losses will be utilised.

At the balance sheet date, the Group had certain unrecognised deductible temporary differences of £3,165 million (2017: £3,403 million), of which £2,294 million (2017: £2,494 million) related to carried forward tax losses available for utilisation against future taxable profits. Some £59 million (2017: £98 million) of these losses will expire within one to five years. All other temporary differences have no expiry date.

No deferred tax asset has been recognised in respect of these temporary differences, due to the unpredictability of future profit streams. At the balance sheet date, no taxable temporary differences existed in respect of the Group's overseas investments (2017: nil).

17. Trade and other receivables, and contract-related assets

Trade and other receivables include accrued income, and are amounts owed by our customers for goods we have delivered or services we have provided. These balances are valued net of provisions for bad debt. Other receivables include payments made in advance to our suppliers. Contract-related assets are balances arising as a result of the Group's contracts with customers in the scope of IFRS 15.

	2018		2017 (restated) (i)	
31 December	Current £m	Non-current £m	Current £m	Non-current £m
Financial assets:				
Trade receivables (ii)	2,043	3	2,073	–
Contract assets	33	4	11	–
Unbilled downstream energy income	1,542	–	1,585	–
Other accrued energy income	1,323	–	690	–
Other accrued income	116	–	118	–
Cash collateral posted (note 24(c))	446	–	253	–
Other receivables (including loans)	259	35	225	54
	5,762	42	4,955	54
Less: provision for credit losses	(569)	–	(599)	–
	5,193	42	4,356	54
Non-financial assets: prepayments and other receivables	342	63	283	33
Non-financial assets: assets recognised from the costs to obtain or fulfill a contract with a customer	8	14	30	10
	5,543	119	4,669	97

(i) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.
(ii) Includes amounts arising from the Group's IFRS 15 contracts with customers of £1,913 million (2017: £1,938 million).

Trade and other receivables include financial assets representing the contractual right to receive cash or other financial assets from residential customers, business customers and treasury, trading and energy procurement counterparties as follows:

	2018		2017	
31 December	Current £m	Non-current £m	Current £m	Non-current £m
Financial assets by class:				
Residential customers	1,700	8	1,650	6
Business customers	2,321	28	2,238	48
Treasury, trading and energy procurement counterparties	1,741	6	1,067	–
	5,762	42	4,955	54
Less: provision for credit losses	(569)	–	(599)	–
	5,193	42	4,356	54

Receivables from residential and business customers are generally considered to be credit impaired when the payment is past the contractual due date. Contractual due dates range from falling due upon receipt to falling due in 30 days from receipt.

The table below shows the change in gross receivables between credit impaired balances (those that are past due) and receivables that are not yet due and therefore not considered to be credit impaired.

Gross financial assets within trade and other receivables 31 December	2018 £m	2017 £m
Balances that are not past due	4,418	3,566
Balances that are past due	1,344	1,389
	5,762	4,955

17. Trade and other receivables, and contract-related assets

The IFRS 9 impairment model is applicable to the Group's financial assets including trade receivables, contract assets and other financial assets as described in note S3. As the majority of the relevant balances are trade receivables and contract assets to which the simplified model applies, this disclosure focuses on these balances.

The provision for credit losses for trade receivables, contract assets and finance lease receivables is based on an expected credit loss model that calculates the expected loss applicable to the receivable balance over its lifetime. Credit losses on receivables due from treasury, trading and energy procurement counterparties are not significant (see note S3 for further analysis of this determination). For residential and business customers default rates are calculated initially by operating segment considering historical loss experience and applied to trade receivables within a provision matrix. The matrix approach allows application of different default rates to different groups of customers with similar characteristics. These groups will be determined by a number of factors including; the nature of the customer, the payment method selected and where relevant, the sector in which they operate. The characteristics used to determine the groupings of receivables are the factors that have the greatest impact on the likelihood of default. The rate of default increases once the balance is 30 days past due and subsequently in 30-day increments.

Receivables from residential and business customers are generally considered to be credit impaired when the payment is past the contractual due date. The Group applies different definitions of default for different groups of customers, ranging from 60 days past the due date to six to twelve months from the issuance of a final bill. Receivables are generally written off only once a period of time has elapsed since the final bill. Contractual due dates range from falling due upon receipt to falling due in 30 days from receipt.

The impairment charge in trade receivables is stated net of credits for the release of specific provisions made in previous years, which are no longer required. These relate primarily to residential customers in the UK. Movements in the provision for credit losses by class are as follows:

	2018				2017			
	Residential customers £m	Business customers £m	Treasury, trading and energy procurement counterparties £m	**Total £m**	Residential customers £m	Business customers £m	Treasury, trading and energy procurement counterparties £m	Total £m
1 January	(347)	(248)	(4)	**(599)**	(395)	(296)	(6)	(697)
Net impairment of credit impaired trade receivables	(79)	(68)	(1)	**(148)**	(102)	(36)	–	(138)
Net impairment of trade receivables not considered to be credit impaired	(6)	4	–	**(2)**	–	1	–	1
Total impairment of trade receivables (i) (ii) (iii)	**(85)**	**(64)**	**(1)**	**(150)**	(102)	(35)	–	(137)
Receivables written off (iv)	89	90	1	**180**	150	83	2	235
31 December	**(343)**	**(222)**	**(4)**	**(569)**	(347)	(248)	(4)	(599)

(i) Includes £135 million (2017: £134 million) of credit losses related to trade receivables resulting from contracts in the scope of IFRS 15.

(ii) All loss allowances reflect the lifetime expected credit losses on trade receivables, contract assets and finance lease receivables.

(iii) Excludes recovery of previously fully impaired receivables of £7 million (2017: £5 million).

(iv) Materially all write offs relate to trade receivables where enforcement activity is ongoing.

Enforcement activity continues in respect of balances that have been written off unless there are specific known circumstances (such as bankruptcy) that render further action futile.

Sensitivity to changes in assumptions

The most significant assumption included within the expected credit loss provisioning model that gives rise to estimation uncertainty is that future performance will be reflective of past performance and there will be no significant change in the payment profile or recovery rates within each identified group of receivables. To address this risk, the Group reviews and updates default rates, by group, on a regular basis to ensure they incorporate the most up to date assumptions along with forward-looking information where available and relevant. The Group also considers regulatory changes and customer segment specific factors that may have an impact, now or in the future, on recoverability of the balance. While forward-looking information is usually considered to be immaterial, the exception to this could be the forecast occurrence of a significant one-off event. The Group does not believe that Brexit will have a material impact on the outstanding receivables balance.

This approach is considered appropriate as the Group's outstanding trade receivable balance is made up of a high volume of individually low value balances relative to the total outstanding debt. As a result, impairment losses on trade receivables are more sensitive to macroeconomic events, rather than customer specific future events, which are unlikely to have a material impact. The Group's receivables are predominantly short term and the rate of default increases significantly when a balance is more than 90 days past due. In order to test the sensitivity to changes in the debt profile, the Group has considered the impact of further credit deterioration of these balances and determined that if all balances were to remain unpaid for a further 30 days, the additional credit loss recognisable by the Group would be up to £20 million.

18. Inventories

Inventories represent assets that we intend to use in future periods, either by selling the asset itself (for example gas in storage) or by using it to provide a service to a customer.

31 December	2018 £m	2017 £m
Gas and oil in storage and transportation [(i)]	210	191
Other raw materials and consumables	169	151
Finished goods and goods for resale	80	67
	459	409

(i) Includes oil inventory and gas in storage held at fair value of £76 million (2017: £26 million).

The Group consumed £768 million of inventories (2017: £555 million) during the year. Write-downs amounting to £8 million (2017: £7 million) were charged to the Group Income Statement in the year.

19. Derivative financial instruments

The Group uses derivative financial instruments to manage the risk arising from fluctuations in the value of certain assets or liabilities, associated with treasury management, energy sales and procurement. These derivatives are held at fair value and are predominantly unrealised positions, expected to unwind in future periods. The Group also uses derivatives for proprietary energy trading purposes.

Purpose	Accounting treatment
Proprietary energy trading and treasury management	Carried at fair value, with changes in fair value recognised in the Group's results for the year, before exceptional items and certain re-measurements. [(i)]
Energy procurement/ optimisation	Carried at fair value, with changes in fair value reflected in certain re-measurements.

(i) With the exception of certain energy derivatives related to cross-border transportation and capacity contracts.

In cases where a derivative qualifies for hedge accounting, derivatives are classified as fair value hedges or cash flow hedges. Note S5 provides further detail on the Group's hedge accounting.

The carrying values of derivative financial instruments by product type for accounting purposes are as follows:

	2018		2017	
31 December	Assets £m	Liabilities £m	Assets £m	Liabilities £m
Derivative financial instruments – held for trading under IFRS 9:				
Energy derivatives – for procurement/optimisation	567	(704)	1,020	(868)
Energy derivatives – for proprietary trading	837	(787)	48	(70)
Interest rate derivatives	–	(26)	–	(28)
Foreign exchange derivatives	30	(38)	32	(32)
Derivative financial instruments in hedge accounting relationships:				
Interest rate derivatives [(i)]	59	(10)	128	(6)
Foreign exchange derivatives [(i)]	185	(1)	162	(16)
Total derivative financial instruments	1,678	(1,566)	1,390	(1,020)
Included within:				
Derivative financial instruments – current	1,141	(1,136)	927	(733)
Derivative financial instruments – non-current	537	(430)	463	(287)

(i) Included within these categories are £233 million (2017: £266 million) of derivatives used to hedge movements in net debt. See note 24(c).

19. Derivative financial instruments

The contracts included within energy derivatives are subject to a wide range of detailed specific terms, but comprise the following general components, analysed on a net carrying value basis:

31 December	**2018** **£m**	2017 £m
Short-term forward market purchases and sales of gas and electricity:		
UK and Europe	**(236)**	(93)
North America	**65**	123
Structured gas purchase contracts	**100**	153
Structured gas sales contracts	**–**	(2)
Structured power purchase contracts	**(2)**	(16)
Other	**(14)**	(35)
Net total	**(87)**	130

Net gains/(losses) on derivative financial instruments due to re-measurement	**2018**		2017	
31 December	**Income Statement £m**	**Equity £m**	Income Statement £m	Equity £m
Financial assets and liabilities measured at fair value:				
Derivative financial instruments – held for trading (proprietary trading)	**71**	**–**	29	–
Derivative financial instruments – held for trading	**(215)**	**–**	173	–
Energy contracts designated at fair value through profit or loss	**–**	**–**	(17)	–
Derivative financial instruments in hedge accounting relationships	**(60)**	**37**	(39)	1
	(204)	**37**	146	1

20. Trade and other payables, and contract liabilities

Trade and other payables include accruals and are principally amounts we owe to our suppliers. Financial deferred income represents monies received from customers in advance of the delivery of goods or services that may be returned to the customer if future delivery does not occur. For example, downstream customers with a credit balance may request repayment of the outstanding amount in cash, rather than taking delivery of commodity. By contrast, contract liabilities arise when the Group receives consideration from a customer in advance of performance, and has a non-financial liability to deliver future goods or services in return.

	2018		2017	
31 December	**Current £m**	**Non-current £m**	Current (restated) (i) £m	Non-current £m
Financial liabilities:				
Trade payables	**(578)**	**–**	(607)	–
Deferred income	**(287)**	**–**	(359)	–
Capital payables	**(166)**	**(124)**	(175)	(110)
Other payables	**(560)**	**(21)**	(393)	(14)
Accruals:				
Commodity costs	**(2,475)**	**–**	(1,776)	–
Transportation, distribution and metering costs	**(384)**	**–**	(378)	–
Operating and other accruals	**(825)**	**–**	(858)	–
	(3,684)	**–**	(3,012)	–
	(5,275)	**(145)**	(4,546)	(124)
Non-financial liabilities:				
Other payables and accruals	**(774)**	**(14)**	(694)	(17)
Contract liabilities	**(54)**	**(22)**	(43)	(18)
Deferred income	**(104)**	**(10)**	(135)	(8)
	(6,207)	**(191)**	(5,418)	(167)

(i) Prior year comparatives have been restated on adoption of IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

Financial liabilities within current trade and other payables 31 December	**2018 £m**	2017 £m
Less than 90 days	**(5,005)**	(4,304)
90 to 182 days	**(165)**	(139)
183 to 365 days	**(105)**	(103)
	(5,275)	(4,546)

21. Provisions for other liabilities and charges

Provisions are recognised when an obligation exists that can be reliably measured, but where there is uncertainty over the timing and/or amount of the payment. The main provisions relate to decommissioning costs for upstream assets we own, or have owned, which require restoration or remediation. Further provisions relate to sale and purchase contracts we have entered into that are now onerous, restructuring costs, and legal and regulatory matters.

Current	1 January 2018 £m	Acquisitions and disposals £m	Charged in the year £m	Notional interest £m	Unused and reversed in the year £m	Utilised (i) £m	Transfers (ii) £m	Exchange adjustments £m	**31 December 2018 £m**
Restructuring costs	(29)	–	(118)	–	1	105	19	–	**(22)**
Decommissioning costs [iii]	(162)	–	–	–	–	133	(165)	–	**(194)**
Sale/purchase contract loss provision [iv]	(44)	(4)	(29)	–	8	54	(24)	(1)	**(40)**
Other [v]	(29)	–	(39)	–	5	34	(20)	–	**(49)**
	(264)	**(4)**	**(186)**	**–**	**14**	**326**	**(190)**	**(1)**	**(305)**

Non-current	1 January 2018 £m	Acquisitions and disposals £m	Charged in the year £m	Notional interest £m	Unused and reversed in the year £m	Revisions and additions £m	Transfers (ii) £m	Exchange adjustments £m	**31 December 2018 £m**
Restructuring costs	(9)	–	–	–	–	–	2	–	**(7)**
Decommissioning costs [iii]	(2,523)	–	(4)	(33)	44	(46)	165	(4)	**(2,401)**
Sale/purchase contract loss provision [iv]	(77)	(6)	(18)	–	4	–	24	(2)	**(75)**
Other [v]	(75)	6	(7)	–	1	–	20	(2)	**(57)**
	(2,684)	**–**	**(29)**	**(33)**	**49**	**(46)**	**211**	**(8)**	**(2,540)**

Included within the above liabilities are the following financial liabilities:

Financial liabilities

	2018		2017	
31 December	**Current £m**	**Non-current £m**	Current £m	Non-current £m
Restructuring costs	**(22)**	**(7)**	(29)	(9)
Provisions other than restructuring costs	**(85)**	**(129)**	(70)	(141)
	(107)	**(136)**	(99)	(150)

(i) Utilisation of provisions includes £145 million (2017: £100 million) of payments relating to exceptional charges. The remainder of the total £248 million (2017: £176 million) of payments relating to exceptional charges shown in the Group Cash Flow Statement was paid directly during the year, without first giving rise to a provision.

(ii) Includes transfers to/from other balance sheet accounts including post-retirement benefit obligations.

(iii) Provision has been made for the estimated net present cost of decommissioning gas production facilities at the end of their useful lives. The estimate has been based on 2P reserves, price levels and technology at the balance sheet date. The payment dates of decommissioning costs are dependent on the lives of the facilities, but utilisation of the provision is expected to occur until 2040.

(iv) The sale/purchase contract loss provision relates mainly to the Spalding tolling contract and North America Business wind farm power purchase agreements. The majority of the provision is expected to be utilised by 2020.

(v) Other provisions have been made for dilapidations, insurance, legal and various other claims.

22. Post-retirement benefits

The Group manages a number of final salary and career average defined benefit pension schemes. It also has defined contribution schemes. The majority of these schemes are in the UK.

(a) Summary of main post-retirement benefit schemes

Name of scheme	Type of benefit	Status	Country	Number of active members as at 31 December 2018	Total membership as at 31 December 2018
Centrica Engineers	Defined benefit final salary pension	Closed to new members in 2006	UK	**3,037**	**8,538**
Pension Scheme	Defined benefit career average pension	Open to service engineers only	UK	**3,330**	**5,429**
Centrica Pension Plan	Defined benefit final salary pension	Closed to new members in 2003	UK	**2,756**	**8,613**
Centrica Pension Scheme	Defined benefit final salary pension	Closed to new members in 2003	UK	**7**	**10,501**
	Defined benefit career average pension	Closed to new members in 2008	UK	**1,263**	**4,118**
	Defined contribution pension	Open to new members	UK	**13,897**	**20,544**
Bord Gáis Energy Company Defined Benefit Pension Scheme	Defined benefit final salary pension	Closed to new members in 2014	Republic of Ireland	**128**	**173**
Bord Gáis Energy Company Defined Contribution Pension Plan	Defined contribution pension	Open to new members	Republic of Ireland	**221**	**286**
Direct Energy Marketing Limited Pension Plan	Defined benefit final salary pension	Closed to new members in 2004	Canada	**7**	**374**
Direct Energy Marketing Limited	Post-retirement benefits	Closed to new members in 2012	Canada	**8**	**257**

The Centrica Engineers Pension Scheme (CEPS), Centrica Pension Plan (CPP) and Centrica Pension Scheme (CPS) form the significant majority of the Group's defined benefit obligation and are referred to below as the 'Registered Pension Schemes'. The other schemes are individually, and in aggregate, immaterial.

Independent valuations

The Registered Pension Schemes are subject to independent valuations at least every three years, on the basis of which the qualified actuary certifies the rate of employer contributions, which together with the specified contributions payable by the employees and proceeds from the schemes' assets, are expected to be sufficient to fund the benefits payable under the schemes.

The latest full actuarial valuations were carried out at the following dates: the Registered Pension Schemes at 31 March 2015, the Bord Gáis Energy Company Defined Benefit Pension Scheme at 1 January 2017 and the Direct Energy Marketing Limited Pension Plan at 1 January 2018. These have been updated to 31 December 2018 for the purpose of meeting the requirements of IAS 19. Investments held in all schemes have been valued for this purpose at market value.

Governance

The Registered Pension Schemes are managed by trustee companies whose boards consist of both company-nominated and member-nominated Directors. Each scheme holds units in the Centrica Combined Common Investment Fund (CCCIF), which holds the majority of the combined assets of the Registered Pension Schemes. The board of the CCCIF is currently comprised of nine directors: three independent directors, three directors appointed by Centrica plc (including the Chairman) and one director appointed by each of the three Registered Pension Schemes.

Under the terms of the Pensions Act 2004, Centrica plc and each trustee board must agree the funding rate for its defined benefit pension scheme and a recovery plan to fund any deficit against the scheme-specific statutory funding objective. This approach was first adopted for the triennial valuations completed at 31 March 2006, and has been reflected in subsequent valuations, including the 31 March 2015 valuations.

22. Post-retirement benefits

(b) Risks

The Registered Pension Schemes expose the Group to the following risks:

Asset volatility

The pension liabilities are calculated using a discount rate set with reference to AA corporate bond yields. If the growth in plan assets is lower than this, this will create an actuarial loss within other equity. The CCCIF is responsible for managing the assets of each scheme in line with the liability-related investment objectives (which were updated in 2017) that have been set by the trustees of the schemes, and invests in a diversified portfolio of assets. The schemes are relatively young in nature (the schemes opened in 1997 on the formation of Centrica plc on demerger from BG plc (formerly British Gas plc), and only took on liabilities in respect of active employees). Therefore, the CCCIF holds a significant proportion of return-seeking assets; such assets are generally expected to provide a higher return than corporate bonds, but result in greater exposure to volatility and risk in the short term. The investment objectives are to achieve a long-term target return of 4% per annum in nominal terms, subject to a maximum level of modelled downside risk exposure.

Interest rate

A decrease in the bond interest rate will increase the net present value of the pension liabilities. The relative immaturity of the schemes means that the duration of the liabilities is longer than average for typical UK pension schemes, resulting in a relatively higher exposure to interest rate risk.

Inflation

Pensions in deferment, pensions in payment and pensions accrued under the career average schemes increase in line with the Retail Prices Index (RPI) and the Consumer Prices Index (CPI). Therefore, scheme liabilities will increase if inflation is higher than assumed, although in some cases caps are in place to limit the impact of significant movements in inflation. Furthermore, a pension increase exchange (PIE) option implemented in 2015 is available to future retirees, which gives the choice to receive a higher initial pension in return for giving up certain future increases linked to RPI, again limiting the impact of significant movements in inflation.

Longevity

The majority of the schemes' obligations are to provide benefits for the life of scheme members and their surviving spouses; therefore increases in life expectancy will result in an increase in the pension liabilities. The relative immaturity of the schemes means that there is comparatively little observable mortality data to assess the rates of mortality experienced by the schemes, and means that the schemes' liabilities will be paid over a long period of time, making it particularly difficult to predict the life expectancy of the current membership. Furthermore, pension payments are subject to inflationary increases, resulting in a higher sensitivity to changes in life expectancy.

Salary

Pension liabilities are calculated by reference to the future salaries of active members, and hence salary rises in excess of assumed increases will increase scheme liabilities. During 2011, changes were introduced to the final salary sections of CEPS and CPP such that annual increases in pensionable pay are capped to 2%, resulting in a reduction in salary risk. During 2016, a salary cap on pensionable pay for the CPS career average and CPP schemes was implemented. Both the 2011 and 2016 changes result in a reduction in salary risk.

Foreign exchange

Certain assets held by the CCCIF are denominated in foreign currencies, and hence their values are subject to exchange rate risk.

The CCCIF has long-term hedging policies in place to manage interest rate, inflation and foreign exchange risks.

The table below analyses the total liabilities of the Registered Pension Schemes, calculated in accordance with accounting principles, by type of liability, as at 31 December 2018.

Total liabilities of the Registered Pension Schemes 31 December	2018 %
Actives – final salary – capped	**28**
Actives – final salary – uncapped and crystallised benefits	**5**
Actives – career average	**7**
Deferred pensioners	**30**
Pensioners	**30**
	100

22. Post-retirement benefits

(c) Accounting assumptions

The accounting assumptions for the Registered Pension Schemes have been given below:

Major assumptions used for the actuarial valuation 31 December	**2018** **%**	2017 %
Rate of increase in employee earnings:		
Subject to 2% cap	**1.7**	1.7
Other not subject to cap	**2.2**	2.3
Rate of increase in pensions in payment	**3.1**	3.1
Rate of increase in deferred pensions:		
In line with CPI capped at 2.5%	**2.0**	2.0
In line with RPI	**3.1**	3.1
Discount rate	**3.0**	2.6

The assumptions relating to longevity underlying the pension liabilities at the balance sheet date have been based on a combination of standard actuarial mortality tables, scheme experience and other relevant data, and include an allowance for future improvements in mortality. The longevity assumptions for members in normal health are as follows:

Life expectancy at age 65 for a member	**2018**		2017	
31 December	**Male** **Years**	**Female** **Years**	Male Years	Female Years
Currently aged 65	**22.9**	**24.5**	23.0	24.6
Currently aged 45	**24.3**	**26.0**	24.5	26.1

The other demographic assumptions have been set having regard to the latest trends in scheme experience and other relevant data. The assumptions are reviewed and updated as necessary as part of the periodic actuarial valuations of the pension schemes.

For the Registered Pension Schemes, marginal adjustments to the assumptions used to calculate the pension liability, or significant swings in bond yields or stock markets, can have a large impact in absolute terms on the net assets of the Group. Reasonably possible changes as at 31 December to one of the actuarial assumptions would have affected the scheme liabilities as set out below:

Impact of changing material assumptions	**2018**		2017	
31 December	**Increase/ decrease in assumption**	**Indicative effect on scheme liabilities** **%**	Increase/ decrease in assumption	Indicative effect on scheme liabilities %
Rate of increase in employee earnings subject to 2% cap	**0.25%**	**+/-0**	0.25%	+/–0
Rate of increase in pensions in payment and deferred pensions	**0.25%**	**+/-5**	0.25%	+/–5
Discount rate	**0.25%**	**-/+6**	0.25%	–/+6
Inflation assumption	**0.25%**	**+/-5**	0.25%	+/–5
Longevity assumption	**1 year**	**+/-3**	1 year	+/–3

The indicative effects on scheme liabilities have been calculated by changing each assumption in isolation and assessing the impact on the liabilities. For the reasonably possible change in the inflation assumption, it has been assumed that a change to the inflation assumption would lead to corresponding changes in the assumed rates of increase in uncapped pensionable pay, pensions in payment and deferred pensions.

The remaining disclosures in this note cover all of the Group's defined benefit schemes.

(d) Amounts included in the Group Balance Sheet

31 December	**2018** **£m**	2017 £m
Fair value of plan assets	**8,487**	8,451
Present value of defined benefit obligation	**(8,566)**	(9,337)
Net liability recognised in the Group Balance Sheet	**(79)**	(886)
Pension liability presented in the Group Balance Sheet as:		
Retirement benefit assets	**223**	–
Retirement benefit liabilities	**(302)**	(886)

The Trust Deed and Rules for the Registered Pension Schemes provide the Group with a right to a refund of surplus assets assuming the full settlement of scheme liabilities. No asset ceiling restrictions have been applied in the consolidated Financial Statements.

22. Post-retirement benefits

(e) Movements in the year

	2018		2017	
	Pension liabilities £m	**Pension assets £m**	Pension liabilities £m	Pension assets £m
1 January	**(9,337)**	**8,451**	(9,075)	7,938
Items included in the Group Income Statement:				
Current service cost	**(120)**	**–**	(125)	–
Contributions by employer in respect of employee salary sacrifice arrangements [(i)]	**(29)**	**–**	(31)	–
Total current service cost	**(149)**	**–**	(156)	–
Past service cost [(ii)]	**(41)**	**–**	(7)	–
Interest (expense)/income	**(239)**	**218**	(245)	215
Items included in the Group Statement of Comprehensive Income:				
Returns on plan assets, excluding interest income	**–**	**(145)**	–	309
Actuarial gain from changes to demographic assumptions	**42**	**–**	70	–
Actuarial gain/(loss) from changes in financial assumptions	**912**	**–**	(120)	–
Actuarial loss from experience adjustments	**(17)**	**–**	(37)	–
Exchange adjustments	**1**	**–**	1	–
Items included in the Group Cash Flow Statement:				
Employer contributions	**–**	**216**	–	236
Contributions by employer in respect of employee salary sacrifice arrangements [(i)]	**–**	**29**	–	31
Other movements:				
Plan participants' contributions	**(2)**	**2**	(2)	2
Benefits paid from schemes	**277**	**(277)**	287	(287)
Acquisition of businesses [(iii)]	**–**	**–**	(8)	7
Scheme closures [(iii)]	**8**	**(7)**	–	–
Transfers from provisions for other liabilities and charges	**(21)**	**–**	(45)	–
31 December	**(8,566)**	**8,487**	(9,337)	8,451

(i) A salary sacrifice arrangement was introduced on 1 April 2013 for pension scheme members. The contributions paid via the salary sacrifice arrangement have been treated as employer contributions and included within current service cost, with a corresponding reduction in salary costs.

(ii) A £41 million past service cost was recognised in the year as a result of GMP equalisation. See note 7. A £7 million charge was recognised in 2017 as a result of the curtailment for certain employees within the Registered Pension Schemes upon the combination of the Group's Exploration & Production business with Bayerngas Norge.

(iii) As part of the combination of the Group's Exploration & Production business with Bayerngas Norge in 2017, a Norwegian defined benefit pension scheme was acquired. The scheme was then closed in 2018.

In addition to current service cost on the Group's defined benefit pension schemes, the Group also charged £58 million (2017: £45 million) to operating profit in respect of defined contribution pension schemes. This included contributions of £17 million (2017: £13 million) paid via a salary sacrifice arrangement.

(f) Pension scheme assets

The market values of plan assets were:

	2018			2017		
31 December	**Quoted £m**	**Unquoted £m**	**Total £m**	Quoted £m	Unquoted £m	Total £m
Equities	**1,991**	**351**	**2,342**	2,121	303	2,424
Corporate bonds	**1,118**	**–**	**1,118**	1,303	–	1,303
High-yield debt	**595**	**1,360**	**1,955**	280	1,451	1,731
Liability matching assets	**1,581**	**994**	**2,575**	1,663	952	2,615
Property	**–**	**395**	**395**	–	374	374
Cash pending investment	**102**	**–**	**102**	4	–	4
	5,387	**3,100**	**8,487**	5,371	3,080	8,451

Unquoted assets are valued by the fund managers with reference to the expected cash flows associated with the assets. These valuations are reviewed annually as part of the CCCIF audit. Included within equities are £1 million of ordinary shares of Centrica plc (2017: nil) via pooled funds that include a benchmark allocation to UK equities. Included within corporate bonds are nil (2017: £1 million) of bonds issued by Centrica plc held within pooled funds over which the CCCIF has no ability to direct investment decisions. Apart from the investment in the Scottish Limited Partnerships which form part of the asset-backed contribution arrangements described in note 22(g), no direct investments are made in securities issued by Centrica plc or any of its subsidiaries or property leased to or owned by Centrica plc or any of its subsidiaries.

22. Post-retirement benefits

Included within the Group Balance Sheet within non-current securities are £91 million (2017: £94 million) of investments, held in trust on behalf of the Group, as security in respect of the Centrica Unfunded Pension Scheme. Of the pension scheme liabilities above, £63 million (2017: £63 million) relate to this scheme. More information on the Centrica Unfunded Pension Scheme is included in the Remuneration Report on pages 90 to 103.

(g) Pension scheme contributions

The Group estimates that it will pay £91 million of ordinary employer contributions during 2019, at an average rate of 24% of pensionable pay, together with £27 million of contributions paid via a salary sacrifice arrangement. At 31 March 2015 (the date of the latest full agreed actuarial valuations) the weighted average duration of the liabilities of the Registered Pension Schemes was 24 years.

At the 31 March 2015 triennial review of the UK Registered Pension Schemes the Technical Provisions deficit was £1,203 million. The Group is committed to additional annual cash contributions to fund the pension deficit and this funding is provided through asset-backed contribution arrangements. The contribution during the year was £98 million, with the remaining annual contributions being £98 million per annum for 2019-2022, £81 million per annum for 2023-2026 and £76 million per annum for 2027-2030, through these arrangements. A £995 million security package over certain of the Group's assets, enforceable in the unlikely event the Group is unable to meet its obligations, is also in place.

The next UK Registered Pension Schemes triennial review, based on the position at 31 March 2018, is in progress. The Group is likely to remain in a Technical Provisions deficit position in excess of the agreed contributions noted above. Whilst negotiations are ongoing, a separate £75 million cash deficit contribution was made on 2 January 2019.

Deficit payments are also being made in respect of the Direct Energy Marketing Limited Pension Plan in Canada. £1 million was paid in 2018 with further annual contributions of £1 million to be paid in 2019.

23. Commitments and contingencies

(a) Commitments

Commitments are not held on the Group's Balance Sheet as these are executory arrangements, and relate to amounts that we are contractually required to pay in the future as long as the other party meets its contractual obligations.

The Group procures commodities through a mixture of production from gas fields, power stations, wind farms and procurement contracts. Procurement contracts include short-term forward market purchases of gas and electricity at fixed and floating prices. They also include gas and electricity contracts indexed to market prices and long-term gas contracts with non-gas indexation. The commitments in relation to commodity purchase contracts disclosed below are stated net of amounts receivable under commodity sales contracts, where there is a right of offset with the counterparty.

The total volume of gas to be taken under certain long-term structured contracts depends on a number of factors, including the actual reserves of gas that are eventually determined to be extractable on an economic basis. The commitments disclosed below are based on the expected minimum quantities of gas and other commodities that the Group is contracted to buy at estimated future prices.

The commitments in this note differ in scope and in basis from the maturity analysis of energy derivatives disclosed in note S3. Whilst the commitments in relation to commodity purchase contracts include all purchase contracts, only certain procurement and sales contracts are within the scope of IFRS 9 and included in note S3. In addition, the volumes used in calculating the maturity analysis in note S3 are estimated using valuation techniques, rather than being based on minimum contractual quantities.

The Group's 20-year agreement with Cheniere to purchase 89bcf per annum of LNG volumes for export from the Sabine Pass liquefaction plant in the US commits the Group to capacity payments of £3.8 billion (included in 'LNG capacity' below) between 2019 and 2039. It also allows the Group to make up to £6.9 billion of commodity purchases based on market gas prices and foreign exchange rates as at the balance sheet date. The target date for first commercial delivery is estimated by the terminal operator as September 2019.

23. Commitments and contingencies

31 December	2018 £m	2017 £m
Commitments in relation to the acquisition of property, plant and equipment:		
Development of Norwegian Nova oil and gas field	**143**	–
Development of Norwegian Oda gas and oil field	**38**	55
Development of Danish Hejre gas and oil field	**–**	219
Development of Norwegian Maria gas and oil field	**–**	31
Other Exploration & Production capital expenditure	**195**	162
Development of King's Lynn A power station	**11**	50
Other capital expenditure	**5**	29
Commitments in relation to the acquisition of intangible assets:		
Renewable obligation certificates	**4,326**	4,261
Other intangible assets	**592**	372
Other commitments:		
Commodity purchase contracts	**48,055**	42,324
LNG capacity	**4,371**	4,401
Transportation capacity	**1,013**	997
Other long-term commitments (i)	**669**	577
Operating lease commitments:		
Future minimum lease payments under non-cancellable operating leases	**343**	388

(i) Other long-term commitments include amounts in respect of executory contracts, power station tolling fees and the smart meter roll-out programme.

At 31 December the maturity analyses for commodity purchase contract commitments and the total minimum lease payments under non-cancellable operating leases were:

	Commodity purchase contract commitments		Total minimum lease payments under non-cancellable operating leases	
31 December	2018 £billion	2017 £billion	2018 £m	2017 £m
<1 year	**13.9**	11.2	**99**	120
1–2 years	**7.9**	6.0	**64**	77
2–3 years	**5.2**	4.4	**50**	46
3–4 years	**4.0**	3.7	**36**	38
4–5 years	**4.0**	3.6	**27**	30
>5 years	**13.1**	13.4	**67**	77
	48.1	42.3	**343**	388

Operating lease payments recognised as an expense in the year were as follows:

Year ended 31 December	2018 £m	2017 £m
Minimum lease payments (net of sub-lease receipts)	**80**	90
Contingent rents – renewables (i)	**59**	73

(i) The Group has entered into long-term arrangements with renewable providers to purchase physical power, renewable obligation certificates and levy exemption certificates from renewable sources. Payments made under these contracts are contingent upon actual production and so there is no commitment to a minimum lease payment (2017: nil). Payments made for physical power are charged to the Group Income Statement as incurred and disclosed as contingent rents.

23. Commitments and contingencies

(b) Guarantees and indemnities

This section discloses any guarantees and indemnities that the Group has given, where we may have to provide security in the future against existing and future obligations that will remain for a specific period.

In connection with the Group's energy trading, transportation and upstream activities, certain Group companies have entered into contracts under which they may be required to prepay, provide credit support or provide other collateral in the event of a significant deterioration in creditworthiness. The extent of credit support is contingent upon the balance owing to the third party at the point of deterioration.

The Group has provided a number of securities in respect of decommissioning liabilities associated with field developments owned, or partly owned, by Spirit Energy and its subsidiaries. These securities are provided to fellow partners and previous owners of these fields, who may be liable for Spirit Energy's share of the decommissioning costs, in the event of default by the Group. The most significant securities relate to the Morecambe and Statfjord fields. As at 31 December 2018, £612 million (2017: £694 million) of letters of credit and on demand payment bonds have been issued in respect of decommissioning obligations included in the Group Balance Sheet.

As additional assets are developed or acquired, additional securities may be provided.

(c) Contingent liabilities

Bacton entry capacity charging methodology

Under proposals for a new UK gas transmission charging methodology currently being considered by Ofgem, it is possible that the Exploration & Production segment may be subject to top-up charges in the future for entry capacity purchased for the now defunct Bacton storage project. Management's best estimate of the value of this contingent liability is £20 million.

The Group has no other material contingent liabilities.

24. Sources of finance

(a) Capital structure

The Group seeks to maintain an efficient capital structure with a balance of net debt and equity as shown in the table below:

31 December	2018 £m	2017 (restated) (i) £m
Net debt	**2,656**	2,596
Shareholders' equity	**3,145**	2,703
Capital	**5,801**	5,299

(i) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. Please see note 1 for further details.

Debt levels are restricted to limit the risk of financial distress and, in particular, to maintain a strong credit profile. The Group's credit standing is important for several reasons: to maintain a low cost of debt, limit collateral requirements in energy trading, hedging and decommissioning security arrangements, and to ensure the Group is an attractive counterparty to energy producers and long-term customers.

The Group monitors its current and projected capital position on a regular basis, considering a medium-term view of at least three years, and different stress case scenarios, including the impact of changes in the Group's credit ratings and significant movements in commodity prices. A number of financial ratios are monitored, including those used by the credit rating agencies.

The level of debt that can be raised by the Group is restricted by the Company's Articles of Association. Borrowings is limited to the higher of £10 billion and a gearing ratio of three times adjusted capital and reserves. The Group funds its long-term debt requirements through issuing bonds in the capital markets and taking bank debt. Short-term debt requirements are met primarily through issuance of commercial paper. The Group maintains substantial committed facilities and uses these to provide liquidity for general corporate purposes, including short-term business requirements and back-up for commercial paper.

British Gas Insurance Limited (BGIL) is required under PRA regulations to hold a minimum capital amount and has complied with this requirement in 2018 (and 2017). BGIL's capital management policy and plan is subject to review and approval by the BGIL board. Reporting processes provide relevant and timely capital information to management and the board. A medium-term capital management plan forms part of BGIL's planning and forecasting process, embedded into approved timelines, management reviews and board approvals.

In the period from 2015-2018, the Group has reduced its overall levels of net debt, in accordance with its strategic objectives and financial framework. The Group regularly reviews its cash and gross debt positions and considers opportunities for early retirement of debt in order to maintain a more efficient balance sheet.

(b) Liquidity risk management and going concern

The Group has a number of treasury and risk policies to monitor and manage liquidity risk. Cash forecasts identifying the Group's liquidity requirements are produced regularly and are stress-tested for different scenarios, including, but not limited to, reasonably possible increases or decreases in commodity prices and the potential cash implications of a credit rating downgrade. The Group seeks to ensure that sufficient financial headroom exists for at least a 12-month period to safeguard the Group's ability to continue as a going concern. It is the Group's policy to maintain committed facilities and/or available surplus cash resources of at least £1,200 million, raise at least 75% of its net debt (excluding non-recourse debt) in the long-term debt market and to maintain an average term to maturity in the recourse long-term debt portfolio greater than five years.

24. Sources of finance

At 31 December 2018, the Group had undrawn committed credit facilities of £3,879 million (2017: £3,530 million) and £1,079 million (2017: £2,664 million) of unrestricted cash and cash equivalents. 174% (2017: 238%) of the Group's net debt has been raised in the long-term debt market and the average term to maturity of the long-term debt portfolio was 11.1 years (2017: 10.8 years).

The Group's liquidity is impacted by the cash posted or received under margin and collateral agreements. The terms and conditions of these agreements depend on the counterparty and the specific details of the transaction. Cash is generally returned to the Group or by the Group within two days of trade settlement. Refer to note 24(c) for the movement in cash posted or received as collateral.

The level of undrawn committed bank facilities and available cash resources has enabled the Directors to conclude that the Group has sufficient headroom to continue as a going concern. The statement of going concern is included in the Governance section – Other Statutory Information, on page 112.

(c) Net debt summary

Net debt predominantly includes capital market borrowings offset by cash, cash posted or received as collateral, securities and certain hedging financial instruments used to manage interest rate and foreign exchange movements on borrowings.

Presented in the derivatives and current and non-current borrowings, finance leases and interest accruals columns shown below are the assets and liabilities that give rise to financing cash flows.

	Cash and cash equivalents, net of bank overdrafts (i) (ii) £m	Cash posted/ (received) as collateral (iii) £m	Current and non-current securities (iv) £m	Current and non-current borrowings, finance leases and interest accruals £m	Derivatives £m	Net debt £m
1 January 2017	1,960	496	232	(6,452)	291	(3,473)
Net cash outflow from purchase of securities	(2)	–	2	–	–	–
Cash outflow from payment of capital element of finance leases	(45)	–	–	45	–	–
Cash outflow from repayment of borrowings	(226)	–	–	226	–	–
Remaining cash inflow and movement in cash posted/received under margin and collateral agreements (v)	1,393	(136)	–	–	–	1,257
Revaluation	–	–	4	36	23	63
Financing interest paid	(318)	–	–	322	(48)	(44)
Increase in interest payable and amortisation of borrowings	–	–	–	(328)	–	(328)
Acquisition of businesses	–	–	–	(66)	–	(66)
New finance lease agreements	–	–	–	(53)	–	(53)
Exchange adjustments	(25)	(24)	(2)	99	–	48
31 December 2017	2,737	336	236	(6,171)	266	(2,596)
Net cash outflow from purchase of securities	(76)	–	76	–	–	**–**
Cash outflow from payment of capital element of finance leases	(56)	–	–	56	–	**–**
Cash outflow from repayment of borrowings	(1,617)	–	–	1,516	(38)	**(139)**
Remaining cash inflow and movement in cash posted/received under margin and collateral agreements (v)	441	(57)	–	–	–	**384**
Revaluation	–	–	(6)	39	25	**58**
Financing interest paid	(305)	–	–	288	(20)	**(37)**
Increase in interest payable and amortisation of borrowings	–	–	–	(262)	–	**(262)**
New finance lease agreements	–	–	–	(36)	–	**(36)**
Exchange adjustments	4	11	1	(44)	–	**(28)**
31 December 2018	**1,128**	**290**	**307**	**(4,614)**	**233**	**(2,656)**

(i) Cash and cash equivalents includes £189 million (2017: £200 million) of restricted cash. This includes cash totalling £100 million (2017: £65 million) within the Spirit Energy business that is not restricted by regulation but is managed by its own treasury department.

(ii) Cash and cash equivalents are net of £140 million bank overdrafts (2017: £127 million). This is offset by a corresponding gross up in current borrowings.

(iii) Collateral is posted or received to support energy trading and procurement activities. It is posted when contracts with marginable counterparties are out of the money and is received when contracts are in the money. These positions reverse when contracts are settled and the collateral is returned. Of the net cash collateral posted as at 31 December 2018, £157 million (2017: £29 million) is included within trade and other payables, £446 million (2017: £253 million) within trade and other receivables, and £1 million (2017: £112 million) has been settled against net derivative financial liabilities. The items to which the cash posted or received as collateral under margin and collateral agreements relate are not included within net debt.

(iv) Securities balances include £126 million (2017: £128 million) of index-linked gilts which the Group uses for short-term liquidity management purposes. Securities balances also include £68 million (2017: £74 million) debt instruments and £45 million (2017: £34 million) equity instruments, all measured at fair value, as described in note 1. In addition to the above, securities include £68 million (2017: nil) of deposits with maturities greater than three months, which are measured at amortised cost. The Group has posted £26 million (2017: £29 million) of non-current securities as collateral against an index-linked swap maturing on 16 April 2020.

(v) Including non-cash movements relating to the reversal of collateral amounts posted when the related derivative contract settles (where these daily margin amounts posted reduce the ultimate amount payable/receivable on settlement of the related derivative contract).

24. Sources of finance

(d) Borrowings, finance leases and interest accruals summary

			2018			2017		
31 December	Coupon rate %	Principal m	Current £m	Non-current £m	Total £m	Current £m	Non-current £m	Total £m
Bank overdrafts			(140)	–	(140)	(127)	–	(127)
Bank loans (> 5 year maturity)			–	(149)	(149)	–	(138)	(138)
Bonds (by maturity date):								
19 September 2018	7.000	£400	–	–	–	(411)	–	(411)
1 February 2019	3.213	€100	(90)	–	(90)	–	(89)	(89)
25 September 2020	Floating	US$80	–	(63)	(63)	–	(59)	(59)
22 February 2022	3.680	HK$450	–	(45)	(45)	–	(43)	(43)
10 March 2022 (i) (ii)	6.375	£246	–	(255)	(255)	–	(531)	(531)
16 October 2023 (i) (ii)	4.000	US$302	–	(237)	(237)	–	(563)	(563)
4 September 2026 (i) (ii)	6.400	£52	–	(56)	(56)	–	(225)	(225)
16 April 2027	5.900	US$70	–	(55)	(55)	–	(51)	(51)
13 March 2029 (i) (ii)	4.375	£552	–	(553)	(553)	–	(751)	(751)
5 January 2032 (iii)	Zero	€50	–	(60)	(60)	–	(57)	(57)
19 September 2033 (ii)	7.000	£770	–	(769)	(769)	–	(763)	(763)
16 October 2043 (i)	5.375	US$367	–	(283)	(283)	–	(437)	(437)
12 September 2044	4.250	£550	–	(537)	(537)	–	(537)	(537)
25 September 2045	5.250	US$50	–	(38)	(38)	–	(36)	(36)
10 April 2075 (ii) (iv)	5.250	£450	–	(449)	(449)	–	(455)	(455)
10 April 2076 (v)	3.000	€750	–	(672)	(672)	–	(664)	(664)
			(90)	(4,072)	(4,162)	(411)	(5,261)	(5,672)
Obligations under finance leases (vi)			(59)	(159)	(218)	(49)	(192)	(241)
Interest accruals			(85)	–	(85)	(120)	–	(120)
			(374)	(4,380)	(4,754)	(707)	(5,591)	(6,298)

(i) Before the effect of the debt repurchase programme dated March 2018, the notional values of the bonds were as follows: 2022 maturity - £500 million, 2023 - US$750 million, 2026 - £200 million, 2029 - £750 million, 2043 - US$600 million.

(ii) Bonds or portions of bonds maturing in 2022, 2023, 2026, 2029, 2033 and 2075 have been designated in a fair value hedge relationship. See note S5 for details of hedge relationships.

(iii) €50 million of zero coupon notes have an accrual yield of 4.200%, which will result in a €114 million repayment on maturity.

(iv) The Group has the right to repay at par on 10 April 2025 and every interest payment date thereafter.

(v) The Group has the right to repay at par on 10 April 2021 and every interest payment date thereafter.

(vi) Contingent rents paid under finance lease obligations during the year were £40 million (2017: £39 million).

25. Share capital

Ordinary share capital represents the total number of shares issued which are publicly traded. We also disclose the number of own and treasury shares the Company holds, which the Company has bought itself, principally as part of the share repurchase programme.

Allotted and fully paid share capital of the Company 31 December	**2018** **£m**	2017 £m
5,727,912,880 ordinary shares of 6$^{14}/_{81}$ pence each (2017: 5,642,344,165)	**354**	348

During the year 86 million new ordinary shares were issued at an average price of 146.3 pence for the scrip dividends, total value of £125 million.

The closing price of one Centrica ordinary share on 31 December 2018 was 134.9 pence (2017: 137.3 pence). Centrica employee share ownership trusts purchase Centrica ordinary shares from the open market and receive treasury shares to satisfy future obligations of certain employee share schemes. The movements in own and treasury shares during the year are shown below:

	Own shares		Treasury shares	
	2018 million shares	2017 million shares	**2018 million shares**	2017 million shares
1 January	**5.3**	9.0	**42.1**	50.8
Shares purchased	**8.2**	5.7	**–**	–
Treasury shares placed into trust	**1.1**	1.2	**(1.1)**	(1.2)
Shares released to employees on vesting	**(8.8)**	(10.6)	**(9.7)**	(7.5)
31 December [(i)]	**5.8**	5.3	**31.3**	42.1

(i) The closing balance in the treasury and own share reserve of own shares was £10 million (2017: £12 million) and treasury shares was £97 million (2017: £130 million).

26. Events after the balance sheet date

The Group updates disclosures in light of new information being received, or a significant event occurring, in the period between 31 December 2018 and the date of this report.

Dividends

The Directors propose a final dividend of 8.40 pence per ordinary share (totalling £479 million) for the year ended 31 December 2018. The dividend will be submitted for formal approval at the Annual General Meeting to be held on 13 May 2019 and, subject to approval, will be paid on 27 June 2019 to those shareholders registered on 10 May 2019.

Mozambique LNG Purchase

Energy Marketing & Trading has signed a joint purchase agreement with Tokyo Gas to take 2.6 million tonnes of LNG per year from the Mozambique LNG Project until the early 2040s. The project is targeting a final investment decision in the first half of 2019, with commencement of deliveries anticipated from 2023.

Disposal of Clockwork business

On 15 February 2019 the Group signed an agreement to dispose of the equity in a number of entities which collectively make up the Clockwork business ('Clockwork') - a component of North America Home Services. Clockwork consists of retail and franchise operations under the brands 'One Hour Air Conditioning and Heating', 'Benjamin Franklin Plumbing' and 'Mister Sparky Electric'. The net assets of the entities to be disposed of, plus the carrying amount of associated intangibles and estimated allocation of goodwill, result in approximately £117 million (US$150 million) of assets to be divested in exchange for consideration of approximately £234 million (US$300 million). The disposal may trigger a potential impairment of a shared IT system of up to £66 million (US$85 million). The goodwill allocation exercise, impairment review and recycling of any foreign exchange balances from reserves will be finalised prior to the expected transaction completion date of April 2019.

The assets of the disposal group were not held for sale at 31 December 2018 as the sale was not considered to be highly probable at this date.

Notes to the Financial Statements
Supplementary information

Supplementary information includes additional information and disclosures we are required to make by accounting standards or regulation.

S1. General information

Centrica plc (the 'Company') is a public company limited by shares, domiciled and incorporated in the UK, and registered in England and Wales. The address of the registered office is Millstream, Maidenhead Road, Windsor, Berkshire, SL4 5GD. The Company, together with its subsidiaries comprise the 'Group'. The nature of the Group's operations and principal activities are set out in note 4(a) and on pages 2 to 65.

The consolidated Financial Statements of Centrica plc are presented in pounds sterling. Operations and transactions conducted in currencies other than pounds sterling are included in the consolidated Financial Statements in accordance with the foreign currencies accounting policy set out in note S2.

S2. Summary of significant accounting policies

This section sets out the Group's significant accounting policies in addition to the critical accounting policies applied in the preparation of these consolidated Financial Statements. Unless otherwise stated, these accounting policies have been consistently applied to the years presented.

Income Statement presentation

The Group Income Statement and segmental note separately identify the effects of re-measurement of certain financial instruments and items that are exceptional, in order to provide readers with a clear and consistent presentation of the Group's underlying performance, as described in note 2.

Basis of consolidation

The Group Financial Statements consolidate the Financial Statements of the Company and entities controlled by the Company. Subsidiaries are all entities (including structured entities) over which the Group has control. Control is exercised over an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases. Transactions with non-controlling interests that relate to their ownership interests and do not result in a loss of control are accounted for as equity transactions.

The results of subsidiaries acquired or disposed of during the year are consolidated from the effective date of acquisition (at which point the Group gains control over a business as defined by IFRS 3, and applies the acquisition method to account for the transaction as a business combination) or up to the effective date of disposal, as appropriate. Where necessary, adjustments are made to the Financial Statements of subsidiaries, associates and joint ventures to align the accounting policies with those used by the Group.

When the Group ceases to have control, any retained interest in the entity is re-measured to its fair value with the change in carrying amount recognised in profit or loss. This fair value becomes the initial carrying amount for the purposes of subsequently accounting for the retained interest as a joint venture, associate or financial asset.

Segmental reporting

The Group's operating segments are reported in a manner consistent with the internal reporting provided to and regularly reviewed by the Group's Executive Committee (which is the Group's Chief Operating Decision Maker as defined by IFRS 8: 'Operating segments') for the purposes of evaluating segment performance and allocating resources.

Revenue

The accounting policies from the Group's revenue from contracts with customers are further explained in note 1.

Revenue from sources other than the Groups contracts with customers is recognised in accordance with the relevant standard, as detailed below:

Proprietary energy trading: revenue comprises both realised (settled) and unrealised (fair value changes) net gains and losses from trading in physical and financial energy contracts.

Fixed-fee service and insurance contracts: revenue from these contracts is recognised in the Group Income Statement with regard to the incidence of risk over the life of the contract, reflecting the seasonal propensity of claims to be made under the contracts and the benefits receivable by the customer, which span the life of the contract as a result of emergency maintenance being available throughout the contract term.

Amounts paid in advance are treated as deferred income, with any amount in arrears recognised as accrued income.

Supplementary information (continued)

S2. Summary of significant accounting policies

Revenue from the production of natural gas, oil and condensates in which the Group has an interest with other producers is recognised based on the Group's working interest and the terms of the relevant production sharing arrangements (the entitlement method). Where differences arise between production sold and the Group's share of production, this is accounted for as an overlift or underlift (see separate accounting policy).

Cost of sales

Energy supply includes the cost of gas and electricity produced and purchased during the year, taking into account the industry reconciliation process for total gas and total electricity usage by supplier and related transportation, distribution, royalty costs and bought-in materials and services.

Cost of sales relating to fixed-fee service and insurance contracts includes direct labour and related overheads on installation work, repairs and service contracts in the year.

Cost of sales relating to gas and oil production includes depreciation of assets used in production of gas and oil, royalty costs and direct labour costs.

Cost of sales within power generation businesses includes the depreciation of assets included in generating power, fuel purchase costs, direct labour costs and carbon emissions costs.

Financing costs

Financing costs that arise in connection with the acquisition, construction or production of a qualifying asset are capitalised and subsequently amortised in line with the depreciation of the related asset. Financing costs are capitalised from the time of acquisition or from the beginning of construction or production until the point at which the qualifying asset is ready for use. Where a specific financing arrangement is in place, the specific borrowing rate for that arrangement is applied. For non-specific financing arrangements, a Group financing rate representative of the weighted average borrowing rate of the Group is used (2018: 4.75%, 2017: 4.55%). Financing costs not arising in connection with the acquisition, construction or production of a qualifying asset are expensed.

Investment income

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying value.

Foreign currencies

The consolidated Financial Statements are presented in pounds sterling, which is the functional currency of the Company and the Group's presentational currency. Each entity in the Group determines its own functional currency and items included in the Financial Statements of each entity are measured using that functional currency. Transactions in foreign currencies are, on initial recognition, recorded in the functional currency of the entity at the exchange rate ruling at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency rate of exchange ruling at the balance sheet date. All exchange movements are included in the Group Income Statement for the period. In previous periods, the Group utilised net investment hedging and exchange differences on foreign currency borrowings and derivatives that provided a hedge against a net investment in a foreign entity were taken directly to equity. Upon the disposal or partial disposal of the net investment, any accumulated foreign exchange reserves related to the investment are recognised in the Group Income Statement. The Group no longer uses net investment hedging but historic exchange differences remain in equity until the disposal of the specific investments.

Non-monetary items that are measured at historical cost in a currency other than the functional currency of the entity concerned are translated using the exchange rate prevailing at the dates of the initial transaction.

For the purpose of presenting consolidated Financial Statements, the assets and liabilities of the Group's non-sterling functional currency subsidiary undertakings, joint ventures and associates are translated into pounds sterling at exchange rates prevailing at the balance sheet date. The monthly results of these (generally foreign) subsidiary undertakings, joint ventures and associates are translated into pounds sterling each month at the average rates of exchange for that month. The closing exchange rates, and the average of the rates used to translate the results of foreign operations to pounds sterling are shown below.

	Closing rate at 31 December		Average rate for the year ended 31 December	
Exchange rate per pound sterling (£)	**2018**	2017	**2018**	2017
US dollars	**1.28**	1.35	**1.33**	1.30
Canadian dollars	**1.74**	1.70	**1.73**	1.69
Euro	**1.11**	1.13	**1.13**	1.15
Norwegian krone	**11.04**	11.09	**10.87**	10.71
Danish krone	**8.32**	8.39	**8.42**	8.52

S2. Summary of significant accounting policies

Exchange adjustments arising from the retranslation of the opening net assets and results of non-sterling functional currency operations are transferred to the Group's foreign currency translation reserve, a separate component of equity, and are reported in the Statement of Comprehensive Income. In the event of the disposal of a non-sterling functional currency subsidiary, the cumulative translation difference arising in the foreign currency translation reserve is charged or credited to the Group Income Statement on disposal.

Employee share schemes

The Group operates a number of employee share schemes, detailed in the Remuneration Report on pages 90 to 103, under which it makes equity-settled share-based payments to certain employees. Equity-settled share-based payments are measured at fair value at the date of grant (excluding the effect of non-market based vesting conditions). The fair value determined at the grant date is expensed on a straight-line basis together with a corresponding increase in equity over the vesting period, based on the Group's estimate of the number of awards that will vest, and adjusted for the effect of non-market based vesting conditions.

The majority of the share-based payment charge arises from the following schemes. More information is included in the Remuneration Report on pages 90 to 103.

Deferred Matching Share Scheme (DMSS):

- Applicable employees: Senior Executive Group.
- From 2015 this scheme was replaced by the Annual Incentive Plan (AIP) and Long Term Incentive Plan (LTIP) for Executive Directors and the On Track Incentive Plan (OTIP) for Senior Executives and senior management.
- Vesting period of four years, comprising bonus year and three-year performance period.
- Participants must defer between 20% and 40% of annual pre-tax bonus into scheme (deferred shares) and can elect to invest additional amounts of annual bonus up to a maximum of 50% of total potential bonus (investment shares).
- Deferred and investment shares will be matched with conditional shares. On achievement of performance targets over a three-year period, matching shares are either released immediately or delivered as nil cost options exercisable for seven years.
- Performance measured through Group and segment Economic Profit (EP) targets.
- Leaving prior to vesting date will normally mean forfeiting rights to deferred and matching shares.

Long Term Incentive Scheme (LTIS):

- Applicable employees: senior management.
- From 2015 this scheme was replaced by the AIP and LTIP for Executive Directors and OTIP for Senior Executives and senior management.
- Vesting period of three years following grant date.
- Grants after 2012: number of shares calculated according to adjusted EPS, Group EP, total shareholder return (TSR) and non-financial KPIs.
- Following the end of the assessed performance period, and subject to continued employment at that date, shares are either released immediately or delivered as nil cost options exercisable for seven years.
- Leaving prior to vesting date will normally mean forfeiting rights.

On Track Incentive Plan (OTIP):

- Applicable employees: Senior Executives, senior and middle management.
- Shares vest subject to continued employment within the Group in two stages: half after two years and the other half after three years.
- Leaving prior to vesting date will normally mean forfeiting rights to the unvested share awards.

Long Term Incentive Plan (LTIP):

- Applicable employees: Executive Directors.
- Shares vest subject to continued employment and performance conditions after a three-year period.
- Number of shares calculated according to adjusted EPS, Group EP and non-financial KPIs.
- Mandatory holding period of two years following vesting during which claw back applies.
- Leaving prior to vesting date will normally mean forfeiting rights.

Annual Incentive Plan (AIP):

- Applicable employees: Senior Executive Group.
- Replaces the previous Annual Incentive Scheme (AIS), Deferred and Matching Share Scheme (DMSS) and Long Term Incentive Scheme (LTIS).
- Designed to incentivise and reward the achievement of demanding financial and individual strategically aligned performance obligations.
- Half of the award is paid in cash. The other half is paid in shares which vest immediately but are deferred in trust, two-thirds of which are released after three years and the remaining third after four years.
- Dividends payable during restricted periods.
- If performance is not deemed satisfactory, an individual's payment may be reduced or forfeited.

Supplementary information (continued)

S2. Summary of significant accounting policies

Sharesave:

- Applicable employees: All UK and Ireland employees.
- Options granted with a fixed exercise price equal to 80% of the average market price of the shares for three days prior to invitation which is three to four weeks prior to the grant date.
- Employees pay a monthly fixed amount into a savings account and may elect to save over three or five years. At the end of the savings period, employees have six months to exercise their options or withdraw the saved funds.

For each of the schemes, the fair value is measured using the market value on the date of the grant.

Business combinations and goodwill

The acquisition of subsidiaries is accounted for using the acquisition method (at the point the Group gains control over a business as defined by IFRS 3). The cost of the acquisition is measured as the cash paid and the aggregate of the fair values, at the date of exchange, of other assets transferred, liabilities incurred or assumed, and equity instruments issued by the Group in exchange for control of the acquiree. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement at the acquisition date.

Acquisition-related costs are expensed as incurred. The acquiree's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition under IFRS 3, are recognised at their fair value at the acquisition date, except for non-current assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5: 'Non-current assets held for sale and discontinued operations', which are recognised and measured at FVLCD. The Group recognises any non-controlling interests in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of acquiree's identifiable net assets.

Goodwill arising on a business combination represents the excess of the consideration transferred, the amount of the non-controlling interests and the acquisition date fair value of any previously held interest in the acquiree over the Group's interest in the fair value of the identifiable net assets acquired. Goodwill arising on the acquisition of a stake in a joint venture or an associate represents the excess of the consideration transferred over the Group's interest in the fair value of the identifiable assets and liabilities of the investee at the date of acquisition. Goodwill is initially recognised as an asset at cost and is subsequently measured at cost less any accumulated impairment losses. The goodwill arising on an investment in a joint venture or in an associate is not recognised separately, but is shown under 'Interests in joint ventures and associates' in the Group Balance Sheet. If, after reassessment, the Group's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities exceeds the cost of the business combination, the excess is recognised immediately in the Group Income Statement.

Acquisitions of joint operations that meet the definition of a business as defined in IFRS 3 are accounted for as a business combination.

On disposal of a subsidiary, associate or joint venture entity, any amount of goodwill attributed to that entity is included in the determination of the profit or loss on disposal. A similar accounting treatment is applied on disposal of assets that represent a business.

Other intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. Intangible assets include contractual customer relationships, brands, application software, emissions trading schemes, renewable obligation and renewable energy certificates, and certain exploration and evaluation expenditures, the accounting policies for which are dealt with separately below. For purchased application software, for example investments in customer relationship management and billing systems, cost includes contractors' charges, materials, directly attributable labour and directly attributable overheads.

Capitalisation begins when expenditure for the asset is being incurred and activities necessary to prepare the asset for use are in progress. Capitalisation ceases when substantially all the activities that are necessary to prepare the asset for use are complete. Amortisation commences at the point of commercial deployment. The cost of intangible assets acquired in a business combination is their fair value as at the date of acquisition.

Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are amortised over their useful lives and are tested for impairment annually, otherwise they are assessed for impairment whenever there is an indication that the intangible asset could be impaired. The amortisation period and the amortisation method for an intangible asset are reviewed at each financial year end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for on a prospective basis by changing the amortisation period or method, as appropriate, and treated as changes in accounting estimates.

Intangible assets are derecognised on disposal, or when no future economic benefits are expected from their use.

Intangible assets with indefinite useful lives are tested for impairment annually, and whenever there is an indication that the intangible asset could be impaired, either individually or at the CGU level. Such intangibles are not amortised. The useful life of an intangible asset with an indefinite useful life is reviewed annually to determine whether the indefinite life assessment continues to be supportable. If not, the change in the useful life assessment from indefinite to finite is made on a prospective basis.

The useful economic lives for the principal categories of intangible assets are as follows:

Customer relationships and other contractual assets	Up to 20 years
Strategic identifiable acquired brands	Indefinite
Application software	Up to 15 years

S2. Summary of significant accounting policies

EU Emissions Trading Scheme and renewable obligation certificates

Purchased carbon dioxide emissions allowances are recognised initially at cost (purchase price) within intangible assets. The liability is measured at the cost of purchased allowances up to the level of purchased allowances held, and then at the market price of allowances ruling at the balance sheet date, with movements in the liability recognised in operating profit.

Forward contracts for the purchase or sale of carbon dioxide emissions allowances are measured at fair value with gains and losses arising from changes in fair value recognised in the Group Income Statement. The intangible asset is surrendered and the liability is extinguished at the end of the compliance period to reflect the consumption of economic benefits.

Purchased renewable obligation certificates are recognised initially at cost within intangible assets. A liability for the renewables obligation is recognised based on the level of electricity supplied to customers, and is calculated in accordance with percentages set by the UK Government and the renewable obligation certificate buyout price for that period.

The intangible asset is surrendered and the liability is extinguished at the end of the compliance period to reflect the consumption of economic benefits. Any recycling benefit related to the submission of renewable obligation certificates is recognised in the Group Income Statement when received.

Exploration, evaluation, development and production assets

The Group uses the successful efforts method of accounting for exploration and evaluation expenditure. Exploration and evaluation expenditures associated with an exploration well, including acquisition costs related to exploration and evaluation activities are capitalised initially as intangible assets. Certain expenditures such as geological and geophysical exploration costs are expensed. If the prospects are subsequently determined to be successful on completion of evaluation, the relevant expenditure including licence acquisition costs is transferred to PP&E. If the prospects are subsequently determined to be unsuccessful on completion of evaluation, the associated costs are expensed in the period in which that determination is made.

All field development costs are capitalised as PP&E. Such costs relate to the acquisition and installation of production facilities and include development drilling costs, project-related engineering and other technical services costs. PP&E, including rights and concessions related to production activities, are depreciated from the commencement of production in the fields concerned, using the unit of production method, based on all of the 2P reserves of those fields. Changes in these estimates are dealt with prospectively.

The net carrying value of fields in production and development is compared annually on a field-by-field basis with the likely discounted future net revenues to be derived from the remaining commercial reserves. An impairment loss is recognised where it is considered that recorded amounts are unlikely to be fully recovered from the net present value of future net revenues. Exploration assets are reviewed annually for indicators of impairment and production and development assets are tested annually for impairment.

Interests in joint arrangements and associates

Under IFRS 11, joint arrangements are those that convey joint control, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor. Associates are investments over which the Group has significant influence but not control or joint control, which are generally investments in which the Group holds between 20% and 50% of the voting rights. The Group's joint ventures and associates (as defined in note 6) are accounted for using the equity method.

Under the equity method, investments are carried at cost plus post-acquisition changes in the Group's share of net assets, less any impairment in value in individual investments. The Group Income Statement reflects the Group's share of the results of operations after tax and interest. Adjustments are made to the results and net assets of the joint ventures and associates where necessary to ensure consistency with the accounting policies adopted by the Group. Upon initial acquisition goodwill may arise and is recognised within 'Interests in joint ventures and associates' in the Group Balance Sheet.

The Group's interests in joint operations (gas and oil exploration and production licence arrangements) are accounted for by recognising its assets (including its share of assets held jointly), its liabilities (including its share of liabilities incurred jointly), its revenue from the sale of its share of the output arising from the joint operation, its share of the revenue from the sale of the output by the joint operation and its expenses (including its share of any expenses incurred jointly).

Where the Group has an equity stake or a participating interest in operations governed by a joint arrangement for which it is acting as operator, an assessment is carried out to confirm whether the Group is acting as agent or principal. As the terms and conditions negotiated between business partners usually provide joint control to the parties over the relevant activities of the gas and oil fields that are governed by joint arrangements, the Group is usually deemed to be an agent when it is appointed as operator and not as principal (as the contracts entered into do not convey control to the parties). Accordingly, the Group recognises its interests in these arrangements as outlined above except that it presents gross liabilities and gross receivables of joint operations (including amounts due to or from non-operating partners) in the Group Balance Sheet in accordance with the netting rules of IAS 32: 'Financial instruments – presentation'.

Property, plant and equipment

PP&E is included in the Group Balance Sheet at cost, less accumulated depreciation and any provisions for impairment. The initial cost of an asset comprises its purchase price or construction cost and any costs directly attributable to bringing the asset into operation. The purchase price or construction cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

Subsequent expenditure in respect of items of PP&E, such as the replacement of major parts, major inspections or overhauls, are capitalised as part of the cost of the related asset where it is probable that future economic benefits will arise as a result of the expenditure and the cost can be reliably measured. All other subsequent expenditure, including the costs of day-to-day servicing, repairs and maintenance, is expensed as incurred.

Supplementary information (continued)

S2. Summary of significant accounting policies

Freehold land is not depreciated. Other PP&E, with the exception of upstream production assets (see above), are depreciated on a straight-line basis at rates sufficient to write off the cost, less estimated residual values, of individual assets over their estimated useful lives. The depreciation periods for the principal categories of assets are as follows:

Freehold and leasehold buildings	Up to 50 years
Plant	Five to 20 years
Equipment and vehicles	Three to 10 years
Power generation assets	Up to 30 years
Gas storage assets[i]	Up to 40 years

(i) The depreciation policy for the Group's UK Storage assets applied during 2017. Following the grant of consent from the Oil and Gas Authority confirming transition from a storage operation into one of production on 17 January 2018, this policy changed to be consistent with the unit of production method used by other production assets.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as for owned assets or, where shorter, the lease term.

The carrying values of PP&E are tested annually for impairment and are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable. Residual values and useful lives are reassessed annually and, if necessary, changes are accounted for prospectively.

Impairment assumptions

Details of the approach taken to assess and measure impairment are included in note 7(d). The following provides further information on the assumptions used in the VIU calculations and FVLCD calculations that did not result in impairment or impairment reversals during the year:

VIU – Key assumptions used

Pre-tax cash flows used in the VIU calculations are derived from the Group's Board-approved business plans, extended as necessary to reflect strategic shape and assumptions specific to the nature and life of the asset. The Group's business plans and strategic shape assumptions are based on past experience and adjusted to reflect market trends, economic conditions, key risks, the implementation of strategic objectives and changes in commodity prices, as appropriate. Commodity prices used in the planning process are based in part on observable market data and in part on internal estimates. The extent to which the commodity prices used in the business plans are based on observable market data is determined by the extent to which the market for the underlying commodity is judged to be active. Note S6 provides additional detail on the active period of each of the commodity markets in which the Group operates.

(a) VIU – Growth rates and discount rates

Unless stated otherwise in the table below, cash flows beyond the planned period have been extrapolated using long-term growth rates in the market where the CGU operates. Long-term growth rates are determined using a blend of publicly available historical data and long-term growth rate forecasts published by external analysts. Cash flows are discounted using a discount rate specific to each CGU. Discount rates reflect the current market assessments of the time value of money and are based on the estimated cost of capital of each CGU. Additionally, risks specific to the cash flows of the CGUs are reflected within cash flow forecasts. Each CGU's weighted average cost of capital is then adjusted to reflect the impact of tax in order to calculate an equivalent pre-tax discount rate.

Long-term growth rates and pre-tax discount rates used in the VIU calculations for each of the Group's CGUs are provided in the table below:

2018	UK Home %	UK Business %	Ireland %	North America Home (i) %	North America Business (i) %	Connected Home (ii) %	CPG (Nuclear) %	Distributed Energy & Power (turbines/engines) %	Energy Marketing & Trading %
Growth rate to perpetuity (including inflation)	**2.1**	**2.1**	**1.4**	**2.2/2.0**	**2.2/2.0**	**2.2/2.1**	**N/A[iv]**	**N/A[iv]**	**2.1**
Pre-tax discount rate	**8.2**	**8.2**	**7.8**	**9.1**	**11.0**	**12.3/11.1**	**9.2**	**8.2**	**9.9**

2017	UK Home %	UK Business %	Ireland %	North America Home (i) (iii) %	North America Business (i) (iii) %	Connected Home (ii) (iii) %	CPG (Nuclear) %	Distributed Energy & Power (ii) (iii) %	Energy Marketing & Trading %
Growth rate to perpetuity (including inflation)	2.6	2.6	1.3	2.1/2.0	2.1/2.0	2.1/2.6	N/A	2.1/2.6	2.6
Pre-tax discount rate	7.3	7.3	7.2	7.9/7.5	7.9/7.5	10.4/9.5	N/A	10.4/9.5	9.0

(i) US/Canada respectively.

(ii) US/UK respectively.

(iii) The US discount rates used for impairment testing purposes were calculated prior to the reduction in US federal tax rates. The reduction in tax rates would not have changed the impairment conclusions.

(iv) Cash flows arising after the planned period have been derived from forecasts to the end of the asset lives. Due to the nature of these finite-lived assets, this provides a more appropriate valuation in later years.

(b) VIU – Inflation rates

Inflation rates used in the business plan were based on a blend of a number of publicly available inflation forecasts for the UK, Canada, the Republic of Ireland and the US. Inflation rates used for the VIU calculations were as follows: UK 2.1% (2017: 2.6%); Canada 2.0% (2017: 2.0%); Republic of Ireland 1.2% (2017: 1.5%); and the US 2.2% (2017: 2.3%).

S2. Summary of significant accounting policies

(c) Key operating assumptions by CGUs using VIU

The key operating assumptions across all CGUs are gross margin, revenues and operating costs. These assumptions are tailored to the specific CGU using management's knowledge of the environment, as shown in the table below:

CGU	Gross margin	Revenues	Operating costs
UK Home	Existing customers: based on contractual terms. Losses are forecast based on historic data and future expectations of the market. New customers and renewals: based on gross margins achieved in the period leading up to the date of the business plan. Both adjusted for current market conditions and cost of goods inflation. For the Services business, future sales and related gross margins are based on planned future product sales and contract losses based upon past performance and future expectations of the competitive environment.	Existing customers: based on contractual terms. Losses are forecast based on historic data and future expectations of the market. Adjusted for: growth forecasts which are based on sales and marketing activity, recent customer acquisitions and the current economic environment in the UK. Gas and electricity revenues based on forward market prices.	Wages: projected headcount in line with expected efficiency programme. Salary increases based on inflation expectations. Credit losses: historical assumptions regarding realised cash losses have been updated to reflect the current UK environment.
UK Business	Existing customers: based on contractual terms. New customers and renewals: based on gross margins achieved in the period leading up to the date of the business plan. Both adjusted for current market conditions and cost of goods inflation.	Market share: percentage immediately prior to business plan. Adjusted for: growth forecasts which are based on sales, marketing activity, recent customer acquisitions and the current economic environment in the UK. Gas and electricity revenues based on forward market prices.	Wages: projected headcount in line with expected activity. Salary increases based on inflation expectations. Credit losses: historical assumptions regarding realised cash losses have been updated to reflect the current UK environment.
Ireland	Existing customers: based on contractual terms. New customers and renewals: based on gross margins achieved in the period leading up to the date of the business plan. Both adjusted for current market conditions, inflation and transportation costs.	Market share: percentage immediately prior to business plan. Adjusted for: growth forecasts which are based on sales, marketing activity and recent customer acquisitions. Gas and electricity revenues based on forward market prices.	Wages: projected headcount in line with expected activity. Salary increases based on inflation expectations. Credit losses: historical assumptions regarding realised cash losses have been updated to reflect the current Irish market environment.
North America Home	Existing customers: based on contractual terms and gross margins achieved in the period leading up to the date of the business plan. New customers and renewals: based on gross margins achieved in the period leading up to the date of the business plan. Adjusted for: competitor data. For the Services business, adjustments are made for current economic conditions and the status of the housing market as appropriate.	Market share: average percentage immediately prior to business plan. For the Services business, the market share is based on historical growth trends and planned sales activities by individual market sectors. Adjusted for: expectations of growth or decline to reflect competitive differences. For the Services business, adjustments are made for new product offerings and continued penetration into new markets.	Wages: projected headcount in line with expected activity. Salary increases based on inflation expectations. Future developments: reduction in costs to reflect expected savings. Customer acquisition: based on experience of costs required to support acquisition, renewal and other servicing activities. Credit losses: historical assumptions regarding realised cash losses have been updated to reflect the current North American environment.
North America Business	Existing customers: based on contractual terms. New customers and renewals: based on gross margins achieved historically.	Market share: based on historical growth trends and planned sales activities by individual market sector. Adjusted for: prices based on contractual terms for fixed price contracts and forward market curves for both gas and electricity in Canada and the US.	Wages: projected headcount in line with expected activity. Salary increases based on forecast salary growth. Future developments: reduction in costs to reflect expected savings. Customer acquisition: based on experience of costs required to support acquisition, renewal and other servicing activities. Credit losses: historical assumptions regarding realised cash losses have been updated to reflect the current North American environment.

Supplementary information (continued)

S2. Summary of significant accounting policies

CGU	Gross margin	Revenues	Operating costs
Connected Home	Future sales: based on gross margins achieved in the period leading up to the date of the business plan. Adjusted for: recurring revenue subscriptions by driving service-led propositions.	Market share: based on current growth trends and planned sales activities by individual market sector. Adjusted for: new product offerings and continued penetration into new markets. One-off revenues based on current external rates. Recurring revenues based on expected package price.	Wages: projected headcount in line with expected activity. Salary increases based on inflation expectations. Future developments: costs to increase in line with customer growth, adjusted to reflect planned business process efficiencies. Credit losses: historical assumptions regarding realised cash losses have been updated to reflect the current UK and US environment.
Energy Marketing & Trading	Asset-backed business: Existing customers: based on contractual terms. New customers and renewals: based on gross margins in the period leading up to the date of the business plan and estimates of future profitability. Trading business: Existing and new markets: management's estimate of future trading performance.	Asset-backed business: customer book immediately prior to business plan. Adjusted for: growth forecasts.	Wages: projected headcount in line with expected activity. Salary increases based on inflation expectations. Bonuses: in line with expected business performance. Future development: increase in costs to support growth forecasts, adjusted for planned business process efficiencies.
Distributed Energy & Power (turbines/ engines)	Based on forecast revenues, operations and maintenance costs, grid network and balancing system charges for the asset life.	Based on forward and contracted prices for commodity, capacity market and grid ancillary service contracts for the asset life. No capacity market revenue until October 2019, but resuming prospectively thereafter.	Based on run-rate and forecast changes, including expected inflation for the asset life.
Central Power Generation (Nuclear)	Based on forward commodity prices and capacity rates, and forecasts of fuel, transportation costs, and balancing system charges for the remaining fleet life.	Based on forward commodity prices and capacity rates for the remaining fleet life. No capacity market revenue until October 2019, but resuming prospectively thereafter.	Based on latest JV Board approved forecasts extrapolated for the remaining fleet life.

FVLCD – key assumptions used

Distributed Energy and Power

A FVLCD calculation has been performed to value the customer CGU within Distributed Energy & Power. Post-tax cash flows used in the FVLCD calculation for the first five years are based on the Group's Board-approved business plans and strategic shape assumptions and, thereafter, are based on long-term production and cash flow forecasts based on terminal values, which management believes reflects the assumptions of a market participant.

The future post-tax cash flows are discounted using a post-tax nominal discount rate of 8.5% to determine the FVLCD. The discount rate and inflation rate used in the FVLCD calculation are determined in the same manner as the rates used in the VIU calculations described above, with the exception of the adjustment required to determine an equivalent pre-tax discount rate.

Overlift and underlift

Off-take arrangements for gas and oil produced from joint operations are often such that it is not practical for each participant to receive or sell its precise share of the overall production during the period. This results in short-term imbalances between cumulative production entitlement and cumulative sales, referred to as overlift and underlift.

An overlift payable, or underlift receivable, is recognised at the balance sheet date within trade and other payables or trade and other receivables respectively, and is measured at market value, with movements in the period recognised within cost of sales.

Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement and requires an assessment of whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets and whether the arrangement conveys a right to use the asset or assets. Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases. Assets held under finance leases are capitalised and included in PP&E at their fair value, or if lower, at the present value of the minimum lease payments, each determined at the inception of the lease. The obligations relating to finance leases, net of finance charges in respect of future periods, are included within bank loans and other borrowings, with the amount payable within 12 months included in bank overdrafts, loans and other borrowings within current liabilities.

Lease payments are apportioned between finance charges and the reduction of the finance lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged directly against income.

Payments under operating leases are charged to the Group Income Statement on a straight-line basis over the term of the relevant lease.

Inventories

Inventories of finished goods are valued at the lower of cost or estimated net realisable value after allowance for redundant and slow-moving items. The cost of inventories includes the purchase price plus costs of conversion incurred in bringing the inventories to their present location and condition.

S2. Summary of significant accounting policies

Inventory of gas in storage is valued either on a weighted average cost basis or at fair value less any costs to sell depending on the business model for holding the inventory. Changes in fair value less costs to sell are recognised in the Group Income Statement.

Oil inventory is measured at fair value, being the spot price at the balance sheet date.

Decommissioning costs

Provision is made for the net present value of the estimated cost of decommissioning gas and oil production facilities at the end of the producing lives of fields and power stations at the end of their useful lives, based on price levels and technology at the balance sheet date.

When this provision relates to an asset with sufficient future economic benefits, a decommissioning asset is recognised and included as part of the associated PP&E and depreciated accordingly. If there is an indication that the new carrying amount of the asset is not fully recoverable, the asset is tested for impairment and an impairment loss is recognised where necessary. Changes in these estimates and changes to the discount rates are dealt with prospectively and reflected as an adjustment to the provision and corresponding decommissioning asset included within PP&E. The unwinding of the discount on the provision is included in the Group Income Statement within financing costs.

Non-current assets and disposal groups held for sale and discontinued operations

Non-current assets and disposal groups classified as held for sale are measured at the lower of carrying amount and fair value less costs of disposal. No depreciation is charged in respect of non-current assets classified as held for sale.

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable, the asset or disposal group is available for immediate sale in its present condition and the Directors are committed to the sale which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

The profits or losses and cash flows that relate to a major component of the Group that has been sold or is classified as held for sale are presented separately from continuing operations as discontinued operations within the Group Income Statement and Group Cash Flow Statement.

Pensions and other post-employment benefits

The Group operates a number of defined benefit and defined contribution pension schemes. The cost of providing benefits under the defined benefit schemes is determined separately for each scheme using the projected unit credit actuarial valuation method. Actuarial gains and losses are recognised in the period in which they occur in the Group Statement of Comprehensive Income.

The cost of providing retirement pensions and other benefits is charged to the Group Income Statement over the periods benefiting from employees' service. Past service cost is recognised immediately. Costs of administering the schemes are charged to the Group Income Statement. Net interest, being the change in the net defined benefit liability or asset due to the passage of time, is recognised in the Group Income Statement within net finance cost.

The net defined benefit liability or asset recognised in the Group Balance Sheet represents the present value of the defined benefit obligation of the schemes and the fair value of the schemes' assets. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits are paid, and that have terms of maturity approximating to the terms of the related pension liability.

Payments to defined contribution retirement benefit schemes are recognised in the Group Income Statement as they fall due.

Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, that can be measured reliably, and it is probable that the Group will be required to settle that obligation. Provisions are measured at the best estimate of the expenditure required to settle the obligation at the balance sheet date and are discounted to present value where the effect is material.

Where discounting is used, the increase in the provision due to the passage of time is recognised in the Group Income Statement within interest expense. Onerous contract provisions are recognised where the unavoidable costs of meeting the obligations under a contract exceed the economic benefits expected to be received under it. Contracts to purchase or sell energy are reviewed on a portfolio basis given the fungible nature of energy, whereby it is assumed that the highest priced purchase contract supplies the highest priced sales contract and the lowest priced sales contract is supplied by the lowest priced purchase contract.

Taxation

Current tax, including UK corporation tax, UK petroleum revenue tax and foreign tax is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date. From time to time, the Group may have open tax issues with a number of revenue authorities. Where an outflow of funds is believed to be probable and a reliable estimate of the dispute can be made, management provides for its best estimate of the liability. These estimates take into account the specific circumstances of each dispute and relevant external advice. Each item is considered separately and on a basis that provides the better prediction of the outcome. See note 9 for further details on uncertain tax provisions.

Deferred tax is recognised in respect of all temporary differences identified at the balance sheet date, except to the extent that the deferred tax arises from the initial recognition of goodwill (if impairment of goodwill is not deductible for tax purposes) or the initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction affects neither accounting profit nor taxable profit and loss. Temporary differences are differences between the carrying amount of the Group's assets and liabilities and their tax base.

Deferred tax liabilities may be offset against deferred tax assets within the same taxable entity or qualifying local tax group. Any remaining deferred tax asset is recognised only when, on the basis of all available evidence, it can be regarded as probable that there will be suitable taxable profits, within the same jurisdiction, in the foreseeable future, against which the deductible temporary difference can be utilised.

Supplementary information (continued)

S2. Summary of significant accounting policies

Deferred tax is provided on temporary differences arising on subsidiaries, joint ventures and associates, except where the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax is measured at the average tax rates that are expected to apply in the periods in which the asset is realised or liability settled, based on tax rates and laws that have been enacted or substantively enacted by the balance sheet date. Measurement of deferred tax liabilities and assets reflects the tax consequences expected from the manner in which the asset or liability is recovered or settled.

Financial instruments

Financial assets and financial liabilities are recognised in the Group Balance Sheet when the Group becomes a party to the contractual provisions of the instrument. Financial assets are derecognised when the Group no longer has the rights to cash flows, the risks and rewards of ownership or control of the asset. Financial liabilities are derecognised when the obligation under the liability is discharged, cancelled or expires.

(a) Trade receivables

Trade receivables are initially recognised at fair value, which is usually the original invoice amount, and are subsequently held at amortised cost using the effective interest method less an allowance for impairment losses. Changes in the Group's impairment policy as a result of the application of IFRS 9 are shown at note 1. Balances are written off when recoverability is assessed as being remote. If collection is due in one year or less, receivables are classified as current assets. If not they are presented as non-current assets.

(b) Trade payables

Trade payables are initially recognised at fair value, which is usually the original invoice amount and are subsequently held at amortised cost using the effective interest method. If payment is due within one year or less, payables are classified as current liabilities. If not, they are presented as non-current liabilities.

(c) Share capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction from the proceeds received. Own equity instruments that are reacquired (treasury or own shares) are deducted from equity. No gain or loss is recognised in the Group Income Statement on the purchase, sale, issue or cancellation of the Group's own equity instruments.

(d) Cash and cash equivalents

Cash and cash equivalents comprise cash in hand and current balances with banks and similar institutions, which are readily convertible to known amounts of cash and which are subject to insignificant risk of changes in value and have an original maturity of three months or less. Cash and cash equivalents are presented net of outstanding bank overdrafts where there is a legal right of set off and, for the Group's cash pooling arrangements, to the extent the Group expects to settle its subsidiaries' year-end account balances on a net basis.

Money market funds are included in Cash and Cash Equivalents and are measured at fair value through profit and loss, in accordance with the policy detailed below.

For the purpose of the Group Cash Flow Statement, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts.

(e) Interest-bearing loans and other borrowings

All interest-bearing loans and other borrowings with banks and similar institutions are initially recognised at fair value net of directly attributable transaction costs. After initial recognition, interest-bearing loans and other borrowings are subsequently measured at amortised cost using the effective interest method, except when they are hedged items in an effective fair value hedge relationship where the carrying value is also adjusted to reflect the fair value movements associated with the hedged risks. Such fair value movements are recognised in the Group Income Statement. Amortised cost is calculated by taking into account any issue costs, discount or premium.

(f) Financial instruments at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income are equity instruments that the Group has elected to recognise the changes in fair value of in other comprehensive income. In the prior year, these instruments were classified as available-for-sale. They are recognised initially at fair value in the Group Balance Sheet and are re-measured subsequently at fair value with gains and losses arising from changes in fair value recognised directly in equity and presented in the Group Statement of Comprehensive Income. Accrued interest or dividends arising on these financial assets are recognised in the Group Income Statement.

If the Group assesses the need to recognise a loss allowance on a financial asset carried at fair value through other comprehensive income, the loss allowance is recognised in other comprehensive income, however, the recognition of a loss allowance does not impact the carrying value of the asset on the Group's balance sheet.

Cumulative gains and losses on equity instruments at fair value through other comprehensive income are not recycled to the Group Income Statement.

(g) Financial assets at fair value through profit or loss

The Group holds investments in gilts which it designates at fair value through profit or loss in order to eliminate asymmetry arising from the measurement of an index-linked derivative. Other debt instruments and money market funds are mandatorily required under IFRS 9 to be measured at fair value through profit or loss as the assets are not held solely for the purpose of collecting contractual cashflows related to principal and interest (see note 1 for changes in classification of financial instruments on application of IFRS 9). Both mandatory and designated instruments are measured at fair value on initial recognition and are re-measured to fair value in each subsequent reporting period. Gains and losses arising from changes in fair value are recognised in the Group Income Statement within investment income or financing costs.

S2. Summary of significant accounting policies

(h) Derivative financial instruments

The Group routinely enters into sale and purchase transactions for physical delivery of gas, power and oil. A portion of these transactions take the form of contracts that were entered into and continue to be held for the purpose of receipt or delivery of the physical commodity in accordance with the Group's expected sale, purchase or usage requirements ('own use'), and are not within the scope of IFRS 9. The assessment of whether a contract is deemed to be 'own use' is conducted on a Group basis without reference to underlying book structures, business units or legal entities.

Certain purchase and sales contracts for the physical delivery of gas, power and oil are within the scope of IFRS 9 due to the fact that they net settle or contain written options. Such contracts are accounted for as derivatives under IFRS 9 and are recognised in the Group Balance Sheet at fair value. Gains and losses arising from changes in fair value on derivatives that do not qualify for hedge accounting are taken directly to the Group Income Statement for the year.

The Group uses a range of derivatives for both trading and to hedge exposures to financial risks, such as interest rates, foreign exchange and energy price risks, arising in the normal course of business. The use of derivative financial instruments is governed by the Group's policies which are approved by the Board of Directors. Further detail on the Group's risk management policies is included within the Strategic Report – Principal Risks and Uncertainties on pages 41 to 50 and in note S3.

The accounting treatment of derivatives is dependent on whether they are entered into for trading or hedging purposes. A derivative instrument is considered to be used for hedging purposes when it alters the risk profile of an underlying exposure of the Group in line with the Group's risk management policies and is in accordance with established guidelines. Certain derivative instruments used for hedging purposes are designated in hedge accounting relationships as described by IAS 39 (the Group has not applied the hedge accounting requirements of IFRS 9). In order to qualify for hedge accounting, the effectiveness of the hedge must be reliably measurable and documentation describing the formal hedging relationship must be prepared at the point of designation. The hedge must be highly effective in achieving its objective. The Group also holds derivatives that are used for hedging purposes which are not designated in hedge accounting relationships and are held for trading.

All derivatives are recognised at fair value on the date on which the derivative is entered into and are re-measured to fair value at each reporting date. Derivatives are carried as assets when the fair value is positive and as liabilities when the fair value is negative. Derivative assets and derivative liabilities are offset and presented on a net basis only when there is a currently enforceable legal right of set-off, and the intention to net settle the derivative contracts is present.

The Group enters into certain energy derivative contracts covering periods for which observable market data does not exist. The fair value of such derivatives is estimated by reference in part to published price quotations from active markets, to the extent that such observable market data exists, and in part by using valuation techniques, the inputs to which include data that is not based on or derived from observable markets. Where the fair value at initial recognition for such contracts differs from the transaction price, a fair value gain or fair value loss will arise. This is referred to as a day-one gain or day-one loss. Such gains and losses are deferred (not recognised) and amortised to the Group Income Statement based on volumes purchased or delivered over the contractual period until such time as observable market data becomes available. When observable market data becomes available, any remaining deferred day-one gains or losses are recognised within the Group Income Statement. Recognition of the gains or losses resulting from changes in fair value depends on the purpose for issuing or holding the derivative. For derivatives that do not qualify for hedge accounting, any gains or losses arising from changes in fair value are taken directly to the Group Income Statement and are included within gross profit or investment income and financing costs. Gains and losses arising on derivatives entered into for speculative energy trading purposes are presented on a net basis within revenue.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not carried at fair value, with gains or losses reported in the Group Income Statement. The closely related nature of embedded derivatives is reassessed when there is a change in the terms of the contract that significantly modifies the future cash flows under the contract. Where a contract contains one or more embedded derivatives, and providing that the embedded derivative significantly modifies the cash flows under the contract, the option to fair value the entire contract may be taken and the contract will be recognised at fair value with changes in fair value recognised in the Group Income Statement.

(i) Hedge accounting

The Group continues to apply the hedge accounting requirements of IAS 39 and has not adopted IFRS 9 hedge accounting.

For the purposes of hedge accounting, hedges are classified as either fair value hedges or cash flow hedges. Note S5 details the Group's accounting policies in relation to derivatives qualifying for hedge accounting under IAS 39.

(j) Impairment of financial assets

In accordance with IFRS 9, the Group has applied the expected credit loss model to financial assets measured at amortised cost and fair value through Other Comprehensive Income.

For trade receivables, contract assets and finance lease receivables, the simplified approach is taken and the lifetime expected credit loss provided for.

For all other in-scope financial assets at the balance sheet date either the lifetime expected credit loss or a 12-month expected credit loss is provided for, depending on the Group's assessment of whether the credit risk associated with the specific asset has increased significantly since initial recognition. As the Group's financial assets are predominantly short term (less than 12 months), the impairment loss recognised is not materially different using either approach. Further details of the assumptions and inputs used to calculate expected credit losses are shown in note 17.

Supplementary information (continued)

S2. Summary of significant accounting policies

Nuclear activity

The Group's investment in Lake Acquisitions Limited ('Nuclear') is accounted for as an associate. The following accounting policies are specific to this nuclear activity.

(a) Fuel costs – nuclear front end

Front end fuel costs consist of the costs of procurement of uranium, conversion and enrichment services, and fuel element fabrication. All costs are capitalised into inventory and charged to the Group Income Statement in proportion to the amount of fuel burnt.

(b) Fuel costs – nuclear back end

Advanced gas-cooled reactors (AGR)

Spent fuel extracted from the reactors is sent for reprocessing and/or long-term storage and eventual disposal of resulting waste products. Back end fuel costs comprise of a loading related cost per tonne of uranium and a rebate/surcharge to this cost which is dependent on the out-turn market electricity price and the amount of electricity generated from AGR stations in the year. These costs are capitalised into inventory and charged to the Group Income Statement in proportion to the amount of fuel burnt.

Pressurised water reactor (PWR)

Back end fuel costs are based on wet storage in station ponds followed by dry storage and subsequent direct disposal of fuel. Back end fuel costs are capitalised into inventory on loading and are charged to the Group Income Statement in proportion to the amount of fuel burnt.

(c) Nuclear property, plant and equipment and depreciation

The majority of the cost of the nuclear fleet is depreciated from the date of the Group acquiring its share of the fleet on a straight-line basis, with remaining depreciable periods currently of up to 17 years.

Other expenditure including amounts spent on major inspections and overhauls of production plant is depreciated over the period until the next outage which for AGR power stations is two to three years and for the PWR power station is 18 months.

(d) Nuclear Liabilities Fund (NLF) funding arrangements

Under the arrangements in place with the Secretary of State, the NLF will fund, subject to certain exceptions, qualifying uncontracted nuclear liabilities and qualifying decommissioning costs.

In part consideration for the assumption of these liabilities by the Secretary of State and the NLF, the former British Energy Group agreed to pay fixed decommissioning contributions each year and £150,000 (indexed to RPI) for every tonne of uranium in PWR fuel loaded into the Sizewell B reactor after the date of these arrangements.

(e) NLF and nuclear liabilities receivables

The UK Government indemnity is provided to indemnify any future shortfall on NLF funding of qualifying uncontracted nuclear liabilities (including PWR back end fuel services) and qualifying nuclear decommissioning costs such that the receivable equals the present value of the associated qualifying nuclear liabilities (apart from a small timing difference due to timing of receipts from NLF).

(f) Nuclear liabilities

Nuclear liabilities represent provision for liabilities in respect of the costs of waste management of spent fuel and nuclear decommissioning.

(g) Unburnt fuels at shutdown

Due to the nature of the nuclear fuel process there will be quantities of unburnt fuel in the reactors at station closure. The costs relating to this unburnt fuel (final core) are fully provided for at the balance sheet date. The provision is based on a projected value per tonne of fuel remaining at closure, discounted back to the balance sheet date and recorded as a long-term liability.

S3. Financial risk management

The Group's normal operating, investing and financing activities expose it to a variety of financial risks: market risk (including commodity price risk, currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall financial risk management processes are designed to identify, manage and mitigate these risks.

Further detail on the Group's overall risk management processes is included within the Strategic Report – Principal Risks and Uncertainties on pages 41 to 50.

Commodity price risk management is carried out in accordance with individual business unit policies and directives including appropriate escalation routes.

Treasury risk management, including management of currency risk, interest rate risk and liquidity risk is carried out by a central Group Treasury function in accordance with the Group's financing and treasury policy, as approved by the Board.

The wholesale credit risks associated with commodity trading and treasury positions are managed in accordance with the Group's credit risk policy. Downstream customer credit risk management is carried out in accordance with individual business unit credit policies.

Market risk management

Market risk is the risk of loss that results from changes in market prices (commodity prices, foreign exchange rates and interest rates). The level of market risk to which the Group is exposed at a point in time varies depending on market conditions, expectations of future price or market rate movements and the composition of the Group's physical asset and contract portfolios.

(a) Commodity price risk management

The Group is exposed to commodity price risk in its energy procurement and supply activities, production, generation and trading operations and uses specific limits to manage the exposure to commodity prices associated with the Group's activities to an acceptable level. The Group uses Profit at Risk (PaR) limits to control exposures to market prices. These are complemented by other limits including Value at Risk (VaR), volumetric or stop-loss limits to control risk around trading activities.

(i) Energy price exposed business activities

The Group's price exposed business activities consist of equity gas and liquids production, equity power generation, bilateral procurement and sales contracts, market-traded purchase and sales contracts and derivative positions primarily transacted with the intent of securing gas and power for the Group's supply customers, from a variety of sources at an optimal cost. The Group actively manages commodity price risk by optimising its asset and contract portfolios and making use of volume flexibility.

The Group's commodity price risk exposure in its business activities is driven by the cost of procuring gas and electricity to serve its supply customers and selling gas, oil and electricity from its upstream production and generation, which varies with wholesale commodity prices. The primary risk is that market prices for commodities will fluctuate between the time that sales prices are fixed or tariffs are set and the time at which the corresponding procurement cost is fixed, thereby potentially reducing expected margins or making sales unprofitable.

The Group's supply activities are also exposed to volumetric risk in the form of an uncertain consumption profile arising from a range of factors, including the weather, energy consumption changes, customer attrition and the economic climate. There is also risk associated with ensuring that there is sufficient commodity available to secure supply to customers. The Group's production and generation activities are also exposed to volumetric risk in the form of uncertain production profiles.

In order to manage the exposure to market prices associated with the Group's business operations the Group uses a specific set of limits (including VaR and PaR) established by the Board, and sub-delegated downwards through the delegation lines to the commercial leaders.

PaR measures the estimated potential loss in a position or portfolio of positions associated with the movement of a commodity price for a given confidence level, over the remaining term of the position or contract. VaR measures the estimated potential loss for a given confidence level over a predetermined holding period. The standard confidence level used is 95%. In addition, regular stress and scenario tests are performed to evaluate the impact on the portfolio of possible substantial movements in commodity prices.

The Group measures and manages the commodity price risk associated with the Group's entire energy price exposed business portfolio. Only certain of the Group's energy contracts constitute financial instruments under IFRS 9 (note S6).

As a result, while the Group manages the commodity price risk associated with both financial and non-financial energy procurement, sales and purchase contracts, it is the notional value of energy contracts being carried at fair value that represents the exposure of the Group's energy price exposed business activities to commodity price risk according to IFRS 7: 'Financial instruments: disclosures'. This is because energy contracts that are financial instruments under IFRS 9 are accounted for on a fair value basis and changes in fair value immediately impact profit. Conversely, energy contracts that are not financial instruments under IFRS 9 are accounted for as executory contracts and changes in fair value do not immediately impact profit, and as such, are not exposed to commodity price risk as defined by IFRS 7. So, whilst the PaR or VaR associated with energy procurement and supply contracts that are outside the scope of IFRS 9 are monitored for internal risk management purposes; only those energy contracts within the scope of IFRS 9 are within the scope of the IFRS 7 disclosure requirements.

(ii) Proprietary energy trading

The Group's proprietary energy trading activities consist of physical and financial commodity purchases and sales contracts taken on with the intent of benefiting from changes in market prices or differences between buying and selling prices. The Group conducts its trading activities in the over-the-counter market and through exchanges in the UK, North America and continental Europe. The Group is exposed to commodity price risk as a result of its proprietary energy trading activities because the value of its trading assets and liabilities will fluctuate with changes in market prices for commodities.

Supplementary information (continued)

S3. Financial risk management

The Group sets volumetric and VaR limits to manage the commodity price risk exposure associated with the Group's proprietary energy trading activities. VaR measures the estimated potential loss at a 95% confidence level over a one-day holding period. The carrying value of energy contracts used in proprietary energy trading activities at 31 December 2018 is disclosed in note 19.

As with any modelled risk measure, there are certain limitations that arise from the assumptions used in the VaR calculation. VaR assumes that historical price behaviours will continue in the future and that the Group's trading positions can be unwound or hedged within the predetermined holding period. Furthermore, the use of a 95% confidence level, by definition, does not take into account changes in value that might occur beyond this confidence level.

(b) Currency risk management

The Group is exposed to currency risk on foreign currency denominated forecast transactions, firm commitments, monetary assets and liabilities (transactional exposure) and on its net investments in foreign operations (translational exposure). IFRS 7 only requires disclosure of currency risk arising on financial instruments denominated in a currency other than the functional currency of the commercial operation transacting. As a result, for the purposes of IFRS 7, currency risk excludes items that are not financial instruments, such as the Group's net investments in international operations as well as foreign currency denominated forecast transactions and firm commitments.

(i) Transactional currency risk

The Group is exposed to transactional currency risk on transactions denominated in currencies other than the underlying functional currency of the commercial operation transacting. The Group has been increasing its international presence through acquisition and the primary functional currencies remain pounds sterling in the UK, Canadian dollars in Canada, US dollars in the US, Norwegian krone in Norway, Danish krone in Denmark and euros in the Netherlands and the Republic of Ireland. The risk is that the functional currency value of cash flows will vary as a result of movements in exchange rates. Transactional exposure arises from the Group's energy procurement, production and generation activities, where many transactions are denominated in foreign currencies. In addition, in order to optimise the cost of funding, the Group has, in certain cases, issued foreign currency denominated debt or entered into foreign currency loans, primarily in US dollars, euros, Japanese yen and Hong Kong dollars.

It is the Group's policy to hedge material transactional exposures using derivatives to fix the functional currency value of non-functional currency cash flows, except where there is an economic hedge inherent in the transaction. At 31 December 2018, there were no material unhedged non-functional currency monetary assets or liabilities, firm commitments or probable forecast transactions (2017: nil), other than transactions which have an inherent economic hedge and foreign currency borrowings used to hedge translational exposures.

(ii) Translational currency risk

The Group is exposed to translational currency risk as a result of its net investments in North America and Europe. The risk is that the pound sterling value of the net assets of foreign operations will decrease with changes in foreign exchange rates. The Group's policy is to protect the pounds sterling book value of its net investments in foreign operations where appropriate, subject to certain parameters, by holding foreign currency debt, entering into foreign currency derivatives, or a mixture of both.

The Group manages translational currency risk taking into consideration the cash impact of any hedging activity as well as the risk to the net asset numbers in the Group's Financial Statements. The translation hedging programme including the potential cash impact is managed by the Group Treasury function and monitored by the Chief Financial Officer.

(c) Interest rate risk management

In the normal course of business the Group borrows to finance its operations. The Group is exposed to interest rate risk because the fair value of fixed rate borrowings and the cash flows associated with floating rate borrowings will fluctuate with changes in interest rates. The Group's policy is to manage the interest rate risk on long-term borrowings by ensuring the exposure to floating interest rates remains within a 30% to 70% range, including the impact of interest rate derivatives.

The return generated on the Group's cash balance is also exposed to movements in short-term interest rates. The Group manages cash balances to protect against adverse changes in rates whilst retaining liquidity.

(d) Sensitivity analysis

IFRS 7 requires disclosure of a sensitivity analysis that is intended to illustrate the sensitivity of the Group's financial position and performance to changes in market variables (commodity prices, foreign exchange rates and interest rates) as a result of changes in the fair value or cash flows associated with the Group's financial instruments. The sensitivity analysis provided discloses the effect on profit or loss and equity at 31 December 2018, assuming that a reasonably possible change in the relevant risk variable had occurred at 31 December 2018, and has been applied to the risk exposures in existence at that date to show the effects of reasonably possible changes in price on profit or loss and equity. Reasonably possible changes in market variables used in the sensitivity analysis are based on implied volatilities, where available, or historical data for energy prices and foreign exchange rates. Reasonably possible changes in interest rates are based on management judgement and historical experience.

The sensitivity analysis has been prepared based on 31 December 2018 balances and on the basis that the balances, the ratio of fixed to floating rates of debt and derivatives, the proportion of energy contracts that are financial instruments, the proportion of financial instruments in foreign currencies and the hedge designations in place at 31 December 2018 are all constant. Excluded from this analysis are all non-financial assets and liabilities and energy contracts that are not financial instruments under IFRS 9. The sensitivity to foreign exchange rates relates only to monetary assets and liabilities denominated in a currency other than the functional currency of the commercial operation transacting, and excludes the translation of the net assets of foreign operations to pounds sterling.

S3. Financial risk management

The sensitivity analysis provided is hypothetical only and should be used with caution as the impacts provided are not necessarily indicative of the actual impacts that would be experienced. This is because the Group's actual exposure to market rates is changing constantly as the Group's portfolio of commodity, debt and foreign currency contracts changes. Changes in fair values or cash flows based on a variation in a market variable cannot be extrapolated because the relationship between the change in market variable and the change in fair value or cash flows may not be linear. In addition, the effect of a change in a particular market variable on fair values or cash flows is calculated without considering interrelationships between the various market rates or mitigating actions that would be taken by the Group. The sensitivity analysis provided excludes the impact of proprietary energy trading assets and liabilities because the VaR associated with the Group's proprietary energy trading activities is less than £5 million.

(i) Transactional currency risk

The Group has performed an analysis of the sensitivity of the Group's financial position and performance to changes in foreign exchange rates. The Group deems 10% movements to US dollar, Canadian dollar and euro currency rates relative to pounds sterling to be reasonably possible. The impact of such movements on profit and equity, both before and after taxation, is immaterial.

(ii) Interest rate risk

The Group has performed an analysis of the sensitivity of the Group's financial position and performance to changes in interest rates. The Group deems a one percentage point move in UK, US and euro interest rates to be reasonably possible. The impact of such movements on profit and equity, both after taxation, is immaterial.

(iii) Commodity price risk

The impacts of reasonably possible changes in commodity prices on profit and equity, both after taxation, based on the assumptions set out above are as follows:

	2018		2017	
Energy prices	**Base price (i)**	**Reasonably possible change in variable (ii) %**	Base price (i)	Reasonably possible change in variable (ii) %
UK gas (p/therm)	**54**	**+/-14**	48	+/–11
UK power (£/MWh)	**54**	**+/-12**	45	+/–7
UK emissions (€/tonne)	**26**	**+/-22**	8	+/–18
UK oil (US$/bbl)	**56**	**+/-20**	62	+/–10
North American gas (US cents/therm)	**27**	**+/-4**	28	+/–4
North American power (US$/MWh)	**34**	**+/-6**	32	+/–6

Incremental profit/(loss)	**2018 Impact on profit (ii) £m**	2017 Impact on profit (ii) £m
UK energy prices (combined) – increase/(decrease)	**18/(9)**	68/(72)
North American energy prices (combined) – increase/(decrease)	**280/(280)**	238/(238)

(i) The base price represents the average forward market price over the duration of the active market curve used in the sensitivity analysis provided.

(ii) The reasonably possible change in variable and the impact on profit are calculated using both the active and inactive market curves for all UK energy prices.

The impact on Other Comprehensive Income of such price changes is immaterial.

Credit risk management

Credit risk is the risk of loss associated with a counterparty's inability or failure to discharge its obligations under a contract.

The Group continually reviews its rating thresholds for relevant counterparty credit limits and updates these as necessary, based on a consistent set of principles. It continues to operate within its limits. In respect of trading activities for both the US and Europe, there is an effort to maintain a balance between exchange based trading and bilateral transactions. This allows for a reasonable balance between counterparty credit risk and potential liquidity requirements. In addition, the Group actively manages the trade-off between credit and liquidity risks by optimising the use of contracts with collateral obligations and physically settled contracts without collateral obligations.

Supplementary information (continued)

S3. Financial risk management

The Group is exposed to credit risk in its treasury, trading, energy procurement and downstream activities. The maximum exposure to credit risk for financial instruments at fair value is equal to their carrying value and is shown by counterparty credit rating in the table below. Further details of other collateral and credit security not offset against these amounts is shown in note S6.

	2018				2017			
	Financial assets at amortised cost		Financial assets at fair value		Financial assets at amortised cost		Financial assets at fair value	
31 December	Receivables including treasury, trading and energy procurement counterparties £m	Cash and cash equivalents £m	Cash and cash equivalents £m	Derivative financial instruments with positive fair values £m	Receivables including treasury, trading and energy procurement counterparties £m	Cash and cash equivalents £m	Cash and cash equivalents £m	Derivative financial instruments with positive fair values £m
AAA to AA	**82**	**–**	**781**	**13**	78	2,024	–	15
AA– to A–	**580**	**454**	**–**	**655**	379	799	–	687
BBB+ to BBB–	**601**	**15**	**–**	**738**	279	27	–	465
BB+ to BB–	**375**	**–**	**–**	**154**	228	–	–	76
B+ or lower	**15**	**–**	**–**	**61**	59	–	–	82
Unrated [(i)]	**4,151**	**18**	**–**	**57**	3,986	14	–	65
	5,804	**487**	**781**	**1,678**	5,009	2,864	–	1,390

(i) The unrated counterparty receivables primarily comprise amounts due from downstream customers, subsidiaries of rated entities, exchanges or clearing houses.

Details of how credit risk is managed across the asset categories are provided below:

(a) Treasury, trading and energy procurement activities

Wholesale counterparty credit exposures are monitored by individual counterparty and by category of credit rating, and are subject to approved limits. The Group uses master netting agreements to reduce credit risk and net settles payments with counterparties where net settlement provisions exist (see note S6 for details of amounts offset). In addition, the Group employs a variety of other methods to mitigate credit risk: margining, various forms of bank and parent company guarantees and letters of credit. See note 24(c) for details of cash posted or received under margin or collateral agreements.

100% of the Group's credit risk associated with its treasury, trading and energy procurement activities is with counterparties in related energy industries or with financial institutions. The impairment considerations of IFRS 9 are applicable to financial assets arising from treasury, trading and energy procurement activities that are carried at amortised cost and equity instruments that are carried at FVOCI. Equity instruments measured at FVOCI are not material for further disclosure.

Included in the table above within receivables including treasury, trading and energy procurement counterparties is £1,747 million of treasury, trading and energy procurement assets. The Group's risk assessment procedures and counterparty selection process ensure that the credit risk on this type of financial asset is always low at initial recognition, and is expected to continue to be assessed as low throughout the asset life. Therefore, the assumption that there has been no significant increase in credit risk since initial recognition applies, and accordingly the expected credit loss modelled is the 12-month expected credit loss, and is not material for further disclosure.

Included within the table above is information about the exposure to credit risk arising from only certain of the Group's energy procurement contracts under IFRS 9. Whilst the Group manages the credit risk associated with both financial and non-financial energy procurement contracts, it is the carrying value of financial assets within the scope of IFRS 9 (note S6) that represents the maximum exposure to credit risk in accordance with IFRS 7.

(b) Trade receivables and contract assets

The simplified approach of measuring lifetime expected credit losses has been applied to trade receivables and contract asset balances, which are the focus of this disclosure. Therefore, consideration of the significance of any change in credit risk since initial recognition for the purpose of applying this model is not required for any material component of the receivables balance.

In the case of business customers, credit risk is managed by checking a company's creditworthiness and financial strength both before commencing trade and during the business relationship. For residential customers, creditworthiness is ascertained normally before commencing trade to determine the payment mechanism required to reduce credit risk to an acceptable level. Certain customers will only be accepted on a prepayment basis or with a security deposit. In some cases, an ageing of receivables is monitored and used to manage the exposure to credit risk associated with both business and residential customers. In other cases, credit risk is monitored and managed by grouping customers according to method of payment or profile.

A sensitivity analysis on the further credit deterioration of receivables greater than 90 days past their due date is provided in note 17.

Liquidity risk management and going concern

Liquidity risk is the risk that the Group is unable to meet its financial obligations as they fall due. The Group experiences significant movements in its liquidity position due primarily to the seasonal nature of its business and margin cash arrangements associated with certain wholesale commodity contracts. To mitigate this risk the Group maintains significant committed facilities and holds cash on deposit. See note 24(b) for further information.

S3. Financial risk management

Maturity profiles

Maturities of derivative financial instruments, provisions, borrowings and finance leases are provided in the following tables (all amounts are remaining contractual undiscounted cash flows):

Due for payment 2018	<1 year £m	1 to 2 years £m	2 to 3 years £m	3 to 4 years £m	4 to 5 years £m	>5 years £m
Energy and interest derivatives in a loss position that will be settled on a net basis	(193)	(90)	(10)	(4)	(1)	4
Gross energy procurement contracts and other derivative buy trades carried at fair value[i]	(4,323)	(3,280)	(2,363)	(1,756)	(2,018)	(3,629)
Foreign exchange derivatives that will be settled on a gross basis:						
Outflow	(4,630)	(1,001)	(910)	(120)	(2)	(61)
Inflow	4,638	995	1,041	113	–	102
Financial liabilities within provisions	(109)	(68)	(34)	(23)	(6)	(6)
Borrowings (bank loans, bonds, overdrafts and interest)	(435)	(267)	(875)	(472)	(401)	(4,669)
Finance leases:[ii]						
Minimum lease payments	(68)	(76)	(59)	(19)	(14)	(2)
Capital elements of leases	(59)	(68)	(57)	(19)	(13)	(2)

Due for payment 2017	<1 year £m	1 to 2 years £m	2 to 3 years £m	3 to 4 years £m	4 to 5 years £m	>5 years £m
Energy and interest derivatives in a loss position that will be settled on a net basis	(183)	(56)	(46)	(3)	1	4
Gross energy procurement contracts and other derivative buy trades carried at fair value[i]	(4,160)	(2,953)	(2,585)	(2,183)	(1,940)	(5,875)
Foreign exchange derivatives that will be settled on a gross basis:						
Outflow	(3,020)	(572)	(64)	(564)	(46)	(63)
Inflow	3,004	566	57	688	43	101
Financial liabilities within provisions	(99)	(39)	(33)	(23)	(25)	(34)
Borrowings (bank loans, bonds, overdrafts and interest)	(817)	(350)	(317)	(923)	(778)	(6,153)
Finance leases:[ii]						
Minimum lease payments	(60)	(64)	(65)	(54)	(13)	(12)
Capital elements of leases	(49)	(56)	(60)	(52)	(12)	(12)

[i] Proprietary energy trades are excluded from this maturity analysis as the Group does not take physical delivery of volumes traded under these contracts. The associated cash flows are expected to be equal to the contract fair value at the balance sheet date. See note 19 for further details.

[ii] The difference between the total minimum lease payments and the total capital elements of leases is due to future finance charges.

Supplementary information (continued)

S4. Other equity

This section summarises the Group's other equity reserve movements.

	Cash flow hedging reserve £m	Foreign currency translation reserve £m	Actuarial gains and losses reserve £m	Financial asset at FVOCI reserve (i) £m	Treasury and own shares reserve £m	Share-based payments reserve £m	Merger, capital redemption and other reserves £m	Total £m
1 January 2017	8	(49)	(1,514)	26	(180)	107	493	(1,109)
Revaluation of available-for-sale securities	–	–	–	6	–	–	–	6
Actuarial gain	–	–	222	–	–	–	–	222
Employee share schemes:								
Increase in own shares	–	–	–	–	(11)	–	–	(11)
Exercise of awards	–	–	–	–	49	(54)	–	(5)
Value of services provided	–	–	–	–	–	47	–	47
Cash flow hedges:								
Net gains	24	–	–	–	–	–	–	24
Transferred to income and expense	(34)	–	–	–	–	–	–	(34)
Transferred to assets and liabilities	(7)	–	–	–	–	–	–	(7)
Share of other comprehensive income of joint ventures and associates, net of taxation	–	–	43	–	–	–	–	43
Taxation on above items	1	–	(38)	(1)	–	–	–	(38)
Acquisition of business	–	–	–	–	–	–	24	24
Recycled to Group Income Statement on disposal	10	8	–	–	–	–	–	18
Exchange adjustments	–	(131)	1	–	–	–	–	(130)
31 December 2017	2	(172)	(1,286)	31	(142)	100	517	(950)
Adjustment on adoption of IFRS 9 (i)	–	–	–	(28)	–	–	–	**(28)**
Losses on revaluation of equity instruments measured at fair value through other comprehensive income	–	–	–	(2)	–	–	–	**(2)**
Actuarial gain	–	–	792	–	–	–	–	**792**
Employee share schemes:								
Increase in own shares	–	–	–	–	(11)	–	–	**(11)**
Exercise of awards	–	–	–	–	46	(51)	–	**(5)**
Value of services provided	–	–	–	–	–	43	–	**43**
Cash flow hedges:								
Net gains	22	–	–	–	–	–	–	**22**
Transferred to income and expense	(10)	–	–	–	–	–	–	**(10)**
Transferred to assets and liabilities (i)	(1)	–	–	–	–	–	–	**(1)**
Share of other comprehensive income of joint ventures and associates, net of taxation	–	–	(1)	–	–	–	–	**(1)**
Taxation on above items	(2)	–	(135)	1	–	–	–	**(136)**
Acquisition of business	–	–	–	–	–	–	8	**8**
Exchange adjustments	–	104	1	–	–	–	–	**105**
31 December 2018	**11**	**(68)**	**(629)**	**2**	**(107)**	**92**	**525**	**(174)**

(i) See Group Statement of Comprehensive Income, Group Statement of Changes in Equity and note 1 for further details of adjustments arising on transition to IFRS 9: 'Financial instruments'.

S4. Other equity

Financial assets at fair value through other comprehensive income reserve

On transition to IFRS 9, the Group's debt securities classified as available-for-sale were reclassified to FVTPL. Historical gains related to the re-measurement of these instruments were transferred to retained earnings on 1 January 2018 and the balance remaining in the financial assets at fair value through other comprehensive income reserve relates to revaluation of equity instruments previously classified as available-for-sale under IAS 39.

Merger, capital redemption and other reserves

During February 1997, BG plc (formerly British Gas plc) demerged certain businesses (grouped together under GB Gas Holdings Limited (GBGH)) to form Centrica plc. Upon demerger, the share capital of GBGH was transferred to Centrica plc and was recorded at the nominal value of shares issued to BG plc shareholders. In accordance with the Companies Act 1985, no premium was recorded on the shares issued. On consolidation, the difference between the nominal value of the Company's shares issued and the amount of share capital and share premium of GBGH at the date of demerger was credited to a merger reserve.

On 8 December 2017, the Group's existing Exploration & Production business was combined with that of Bayerngas Norge AS to form the Spirit Energy business. The Group acquired 69% of the Spirit Energy business and Bayerngas Norge's former shareholders acquired 31%. The non-controlling interest established on acquisition has been based on its share of the carrying value of the combined business, with the other reserve representing the difference between the fair value and this carrying value. During 2018 measurement period adjustments have updated the postings to the other reserve. See note 12(b).

In accordance with the Companies Act 1985, the Company has transferred to the capital redemption reserve an amount equal to the nominal value of shares repurchased and subsequently cancelled. Up to 31 December 2018 the cumulative nominal value of shares repurchased and subsequently cancelled was £26 million (2017: £26 million).

Own shares reserve

The own shares reserve reflects the cost of shares in the Company held in the Centrica employee share ownership trusts to meet the future requirements of the Group's share-based payment plans.

Treasury shares reserve

Treasury shares are acquired equity instruments of the Company.

Share-based payments reserve

The share-based payments reserve reflects the obligation to deliver shares to employees under the Group's share schemes in return for services provided.

Foreign currency translation reserve

The foreign currency translation reserve comprises exchange adjustments on the translation of the Group's foreign operations. Historically the Group has hedged its net investments in these foreign operations and the opening balance of the foreign currency translation reserve includes exchange translation adjustments on borrowings and derivatives classified as net investment hedges under the requirements of IAS 39. Note S5 provides further detail on historical net investment hedges.

Cash flow hedging reserve

The cash flow hedging reserve comprises fair value movements on instruments designated as cash flow hedges under the requirements of IAS 39. Amounts are transferred from the cash flow hedging reserve to the Group Income Statement or Group Balance Sheet as and when the hedged item affects the Group Income Statement or Group Balance Sheet which is, for the most part, on receipt or payment of amounts denominated in foreign currencies and settlement of interest on debt instruments. Note S5 provides further detail on cash flow hedging.

Supplementary information (continued)

S5. Hedge accounting

The Group applies hedge accounting to address interest rate and foreign currency risk on borrowings.

For the purposes of hedge accounting, hedges are classified either as fair value hedges, cash flow hedges or, in previous periods, hedges of net investments in foreign operations.

The fair values of derivatives and primary financial instruments in hedge accounting relationships at 31 December were as follows:

		2018			2017		
31 December	Hedge	Assets £m	Liabilities £m	Change in fair value £m	Assets £m	Liabilities £m	Change in fair value £m
Interest rate risk	Fair value	59	(10)	3	128	(6)	(1)
Foreign exchange risk	Cash flow hedge	185	(1)	22	162	(16)	24

	Hedge	Timing of nominal amount	Average rate	Nominal value	Hedged item	Change in fair value of hedged item in year £m	Cumulative amount of fair value hedge adjustments on hedged item £m	Accumulated foreign exchange gain/(losses) in CFHR (i) £m
Interest rate risk	Fair value	2022 – 2033	Fixed to floating at LIBOR + 1% - 5%	£50 million - £550 million	Bonds [(ii)]	2	(28)	N/A
Foreign exchange risk	Cash flow hedge	2021 – 2032	GBP to Euro at 1.356	€50 million, €750 million	Euro bonds	(12)	N/A	30
	Cash flow hedge	2036 – 2038	GBP to Yen at 151.49	¥20 billion	Yen bank loans	(11)	N/A	(17)

(i) All amounts relate to continuing cash flow hedge relationships.
(ii) The carrying amount of bonds designated as hedged items in hedging relationships is disclosed in note 24.

The Group's accounting policies in relation to derivatives qualifying for hedge accounting under IAS 39 are described below.

Fair value hedges

A derivative is designated as a hedging instrument and its relationship to a recognised asset or liability is classified as a fair value hedge when it hedges the exposure to changes in the fair value of that recognised asset or liability. The Group's fair value hedges consist of interest rate swaps used to protect against changes in the fair value of fixed-rate, long-term debt due to movements in market interest rates. Any gain or loss from re-measuring the hedging instrument to fair value is recognised immediately in the Group Income Statement. Any gain or loss on the hedged item attributable to the hedged risk is adjusted against the carrying amount of the hedged item and recognised in the Group Income Statement within net finance cost. The Group discontinues fair value hedge accounting if the hedging instrument expires or is sold, terminated or exercised, the hedge no longer qualifies for hedge accounting or the Group revokes the designation. Any adjustment to the carrying amount of a hedged financial instrument for which the effective interest method is used is amortised to the Group Income Statement. Amortisation may begin as soon as an adjustment exists and shall begin no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

Cash flow hedges

A derivative is classified as a cash flow hedge when it hedges exposure to variability in cash flows that is attributable to a particular risk either associated with a recognised asset, liability or a highly probable forecast transaction. The Group's cash flow hedges consist primarily of:

- forward foreign exchange contracts used to protect against the variability of functional currency denominated cash flows associated with non-functional currency denominated highly probable forecast transactions; and
- cross-currency interest rate swaps and forward foreign exchange contracts used to protect against the variability in cash flows associated with borrowings denominated in non-functional currencies.

S5. Hedge accounting

The portion of the gain or loss on the hedging instrument which is effective is recognised directly in equity while any ineffectiveness is recognised in the Group Income Statement. The gains or losses that are initially recognised in the cash flow hedging reserve in the Group Statement of Comprehensive Income are transferred to the Group Income Statement in the same period in which the highly probable forecast transaction affects income. Where the hedged item is the cost of a non-financial asset or liability, the amounts taken to equity are transferred to the initial carrying amount of the non-financial asset or liability on its recognition. Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated or exercised without replacement or rollover, no longer qualifies for hedge accounting or the Group revokes the designation. At that point in time, any cumulative gain or loss on the hedging instrument recognised in equity remains in equity until the highly probable forecast transaction occurs. If the transaction is no longer expected to occur, the cumulative gain or loss recognised in equity is recognised in the Group Income Statement.

Note S4 details movements in the cash flow hedging reserve. The ineffective portion of gains and losses on cash flow hedging is immaterial and is recognised immediately in the Group Income Statement.

Net investment hedges

Historically the Group engaged in net investment hedging (NIH) whereby it would obtain foreign currency debt issued in the same currency as its net investment in a foreign operation. Such hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the effective portion of the hedge is recognised in equity; any gain or loss on the ineffective portion of the hedge is recognised in the Group Income Statement. In 2009 the Group ceased to NIH, however the opening balance of the foreign currency translation reserve includes cumulative exchange translation adjustments on borrowings and derivatives classified as a NIH under the requirements of IAS 39. These balances will be recycled to the Group Income Statement on disposal of the relevant foreign operation.

S6. Fair value of financial instruments

The fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Group has documented internal policies for determining fair value, including methodologies used to establish valuation adjustments required for credit risk.

(a) Fair value hierarchy

Financial assets and financial liabilities measured and held at fair value are classified into one of three categories, known as hierarchy levels, which are defined according to the inputs used to measure fair value as follows:

- Level 1: fair value is determined using observable inputs that reflect unadjusted quoted market prices for identical assets and liabilities;
- Level 2: fair value is determined using significant inputs that may be directly observable inputs or unobservable inputs that are corroborated by market data; and
- Level 3: fair value is determined using significant unobservable inputs that are not corroborated by market data and may be used with internally developed methodologies that result in management's best estimate of fair value.

	2018				2017			
31 December	Level 1 (i) £m	Level 2 £m	Level 3 £m	**Total** **£m**	Level 1(i) £m	Level 2 £m	Level 3 £m	Total £m
Financial assets								
Derivative financial instruments:								
Energy derivatives	6	1,248	150	**1,404**	(2)	1,014	56	1,068
Interest rate derivatives	–	59	–	**59**	–	128	–	128
Foreign exchange derivatives	–	215	–	**215**	–	194	–	194
Treasury gilts designated FVTPL	126	–	–	**126**	128	–	–	128
Debt instruments (ii)	68	–	–	**68**	74	–	–	74
Equity instruments (iii)	20	–	25	**45**	31	–	3	34
Cash and cash equivalents (iv)	–	781	–	**781**	–	–	–	–
Total financial assets at fair value	**220**	**2,303**	**175**	**2,698**	231	1,336	59	1,626
Financial liabilities								
Derivative financial instruments:								
Energy derivatives	(42)	(1,390)	(59)	**(1,491)**	(60)	(845)	(33)	(938)
Interest rate derivatives	–	(36)	–	**(36)**	–	(34)	–	(34)
Foreign exchange derivatives	–	(39)	–	**(39)**	–	(48)	–	(48)
Total financial liabilities at fair value	**(42)**	**(1,465)**	**(59)**	**(1,566)**	(60)	(927)	(33)	(1,020)

(i) In 2017, Level 1 energy derivative assets included liabilities of £6 million, which were presented within derivative assets on the Group Balance Sheet, as a result of being netted off the associated Level 2 trades with the same commodity/instrument type.

(ii) Certain of the Group's debt instrument assets have been classified as FVTPL on adoption of IFRS 9. In prior periods similar items were classified as available-for-sale.

(iii) The Group's equity instrument assets have been designated as FVOCI on adoption of IFRS 9. In prior periods similar items were classified as available-for-sale.

(iv) Certain cash and cash equivalents have been classified as FVTPL on adoption of IFRS 9.

Supplementary information (continued)

S6. Fair value of financial instruments

The reconciliation of the Level 3 fair value measurements during the year is as follows:

	2018		2017	
	Financial assets £m	Financial liabilities £m	Financial assets £m	Financial liabilities £m
Level 3 financial instruments				
1 January	59	(33)	44	(63)
Total realised and unrealised gains/(losses):				
Recognised in Group Income Statement	79	(11)	1	9
Purchases, sales, issuances and settlements (net)	24	(4)	18	(9)
Transfers between Level 2 and Level 3 [(i)]	12	(8)	(3)	30
Foreign exchange movements	1	(3)	(1)	–
31 December	175	(59)	59	(33)
Total gains/(losses) for the year for Level 3 financial instruments held at the end of the reporting year	71	(32)	19	(15)

(i) Transfers between levels are deemed to occur at the beginning of the reporting period.

(b) Valuation techniques used to derive Level 2 and Level 3 fair values and Group valuation process

Level 2 interest rate derivatives and foreign exchange derivatives comprise interest rate swaps and forward foreign exchange contracts. Interest rate swaps are fair valued using forward interest rates extracted from observable yield curves. Forward foreign exchange contracts are fair valued using forward exchange rates that are quoted in an active market, with the resulting market value discounted back to present value using observable yield curves.

Level 2 energy derivatives are fair valued by comparing and discounting the difference between the expected contractual cash flows for the relevant commodities and the quoted prices for those commodities in an active market. The average discount rate applied to value this type of contract during the period was 1% (Europe) and 3% (North America) per annum (31 December 2017 average discount rate of 1% (Europe) and 3% (North America) per annum).

For Level 3 energy derivatives, the main input used by the Group pertains to deriving expected future commodity prices in markets that are not active as far into the future as some of our contractual terms. This applies to certain contracts within Europe and North America. Fair values are then calculated by comparing and discounting the difference between the expected contractual cash flows and these derived future prices using an average discount rate of 2% (Europe) and 3% (North America) per annum (31 December 2017 average discount rate of 1% (Europe) and 3% (North America) per annum).

Active period of markets	Gas	Power	Coal	Emissions	Oil
UK (years)	3	3	3	3	3
North America (years)	5	Up to 5	N/A	Up to 5	3

Because the Level 3 energy derivative valuations involve the prediction of future commodity market prices, sometimes a long way into the future, reasonably possible alternative assumptions for gas, power, coal, emissions or oil prices may result in a higher or lower fair value for Level 3 financial instruments. Given the relative size of the volumetric exposures and these fair values, it is unlikely that the impact of these reasonably possible changes would be significant when judged in relation to the Group's profit and loss or total asset value.

It should be noted that the fair values disclosed in the tables above only concern those contracts entered into which are within the scope of IFRS 9. The Group has numerous other commodity contracts which are outside of the scope of IFRS 9 and are not fair valued. The Group's actual exposure to market rates is constantly changing as the Group's portfolio of energy contracts changes.

The Group's valuation process includes specific teams of individuals that perform valuations of the Group's derivatives for financial reporting purposes, including Level 3 valuations. The Group has an independent team that derives future commodity price curves based on available external data and these prices feed in to the energy derivative valuations, subject to adjustments to ensure they are compliant with IFRS 13: 'Fair value measurement'. The price curves are subject to review and approval by the Group's Executive Committee and valuations of all derivatives, together with other contracts that are not within the scope of IFRS 9, are also reviewed regularly as part of the overall risk management process.

Where the fair value at initial recognition for contracts which extend beyond the active period differs from the transaction price, a day-one gain or loss will arise. Such gains and losses are deferred and amortised to the Group Income Statement based on volumes purchased or delivered over the contractual period until such time as observable market data becomes available (see note S2 for further detail). The amount that has yet to be recognised in the Group Income Statement relating to the differences between the transaction prices and the amounts that would have arisen had valuation techniques used for subsequent measurement been applied at initial recognition, less subsequent releases, is immaterial.

S6. Fair value of financial instruments

(c) Fair value of financial assets and liabilities held at amortised cost

The carrying value of the Group's financial assets and liabilities measured at amortised cost are approximately equal to their fair value except as listed below:

			2018			2017		
31 December		Notes	Carrying value £m	Fair value £m	Fair value hierarchy	Carrying value £m	Fair value £m	Fair value hierarchy
Bank loans		24(d)	**(149)**	**(165)**	**Level 2**	(138)	(203)	Level 2
Bonds	Level 1	24(d)	**(4,057)**	**(4,432)**	**Level 1**	(5,573)	(6,311)	Level 1
	Level 2	24(d)	**(105)**	**(128)**	**Level 2**	(99)	(126)	Level 2
Obligations under finance leases		24(d)	**(218)**	**(226)**	**Level 2**	(241)	(250)	Level 2

Financial liabilities

The fair values of bonds classified as Level 1 within the fair value hierarchy are calculated using quoted market prices. The fair values of Level 2 bonds and bank loans have been determined by discounting cash flows with reference to relevant market rates of interest. The fair values of overdrafts and short-term loans are assumed to equal their book values due to the short-term nature of these amounts. The fair values of obligations under finance leases have been determined by discounting contractual cash flows with reference to the Group's cost of borrowing.

Other financial instruments

Due to their nature and/or short-term maturity, the fair values of trade and other receivables, cash and cash equivalents, trade and other payables and provisions are estimated to approximate their carrying values.

(d) Financial assets and liabilities subject to offsetting, master netting arrangements and similar arrangements

				Related amounts not offset in the Group Balance Sheet (i)		
31 December 2018	**Gross amounts of recognised financial instruments £m**	**Gross amounts of recognised financial instruments offset in the Group Balance Sheet £m**	**Net amounts presented in the Group Balance Sheet £m**	**Financial instruments £m**	**Collateral £m**	**Net amount £m**
Derivative financial assets	**7,630**	**(5,952)**	**1,678**	**(292)**	**(157)**	**1,229**
Derivative financial liabilities	**(7,518)**	**5,952**	**(1,566)**	**292**	**472**	**(802)**
			112			**427**
Balances arising from commodity contracts:						
Accrued and unbilled downstream and energy income	**6,994**	**(4,129)**	**2,865**	**(264)**	**–**	**2,601**
Accruals for commodity costs	**(6,604)**	**4,129**	**(2,475)**	**264**	**–**	**(2,211)**
Cash and financing arrangements:						
Cash and cash equivalents	**1,289**	**(21)**	**1,268**	**(140)**	**–**	**1,128**
Bank loans and overdrafts	**(310)**	**21**	**(289)**	**140**	**–**	**(149)**
Securities	**307**	**–**	**307**	**–**	**(26)**	**281**

				Related amounts not offset in the Group Balance Sheet (i)		
31 December 2017	Gross amounts of recognised financial instruments £m	Gross amounts of recognised financial instruments offset in the Group Balance Sheet £m	Net amounts presented in the Group Balance Sheet £m	Financial instruments £m	Collateral £m	Net amount £m
Derivative financial assets	8,656	(7,266)	1,390	(234)	(29)	1,127
Derivative financial liabilities	(8,286)	7,266	(1,020)	234	282	(504)
			370			623
Balances arising from commodity contracts:						
Accrued and unbilled downstream and energy income	6,028	(3,753)	2,275	(92)	–	2,183
Accruals for commodity costs	(5,529)	3,753	(1,776)	92	–	(1,684)
Cash and financing arrangements:						
Cash and cash equivalents	2,880	(16)	2,864	(127)	–	2,737
Bank loans and overdrafts	(281)	16	(265)	127	–	(138)
Securities	236	–	236	–	(29)	207

(i) The Group has arrangements in place with various counterparties in respect of commodity trades which provide for a single net settlement of all financial instruments covered by the arrangement in the event of default or termination, or other circumstances arising whereby either party is unable to meet its obligations. The above table shows the potential impact of these arrangements being enforced by offsetting the relevant amounts within each Group Balance Sheet class of asset or liability, but does not show the impact of offsetting across Group Balance Sheet classes where the offsetting Group Balance Sheet class is not included within the above table.

Supplementary information (continued)

S7. Fixed-fee service and insurance contracts

This section includes fixed-fee service (FFS) and insurance contract disclosures for services related to UK Home and North America Home.

FFS contracts in North America are entered into with home and business services customers. Insurance contracts in North America are entered into with home services customers.

FFS contracts in the UK are entered into with home services customers by British Gas Services Limited (BGSL) and with business customers by British Gas Services (Commercial) Limited. Insurance contracts in the UK are entered into with home services customers by British Gas Insurance Limited (BGIL), authorised by the PRA and regulated by the FCA and the PRA.

Product offerings include central heating, boiler and controls, plumbing and drains and electrical appliance insurance cover.

FFS contracts continue until cancelled by either party; insurance contracts normally provide cover for 12 months with the option of renewal.

The contracts which protect policyholders against the risk of breakdowns result in the transfer of risk to the contract provider. Benefits provided to customers vary in accordance with terms and conditions of the contracts entered into. However, they generally include maintenance, repair and/or replacement of the items affected.

The levels of risk exposure and service provision to customers under the contract terms are dependent on the occurrence of uncertain future events, in particular the nature and frequency of faults, and the cost of repair or replacement of the items affected. Accordingly, the timing and amount of future cash outflows associated with the contracts is uncertain. The key terms and conditions that affect future cash flows are as follows:

- provision of labour and parts for repairs, dependent on the agreement and associated level of service;
- a specified number of safety and maintenance inspections are carried out as set out in the agreement (usually once a year);
- no limit to the number of call-outs to carry out repair work; and
- limits on certain maintenance and repair costs.

Revenue is recognised over the life of contracts having regard to the incidence of risk, in particular the seasonal propensity of claims which span the life of the contract as a result of emergency maintenance being available throughout the contract term. Costs incurred to settle claims represent principally the engineer workforce employed by the Group within home services and the cost of parts utilised in repair or maintenance. These costs are accounted for over a 12-month period with adjustments made to reflect the seasonality of workload over a given year.

Weather conditions and the seasonality of repairs both affect the profile of the workload and associated costs incurred across the year.

The risk exposure of these uncertain events is actively managed by undertaking the following risk mitigation activities:

- an initial service visit is provided to customers taking up most central heating contracts and in some instances pre-existing faults may lead to the contract being cancelled and no further cover being provided;
- an annual maintenance inspection is performed as part of most central heating contracts to help identify and prevent issues developing into significant maintenance or breakdown claims; and
- contract limits are applied to certain types of maintenance and repair work considered to be higher risk in terms of frequency and cost.

The costs of FFS claims and insurance claims incurred during the year were £18 million (2017: £44 million) and £398 million (2017: £389 million) respectively and are included in the table below in 'Expenses relating to FFS and insurance contracts'. All claims are settled immediately and in full. Due to the short average lead time between claims occurrence and settlement, no material provisions were outstanding at the balance sheet date (2017: nil).

	2018 **£m**	2017 (restated) (i) £m
Total revenue	**1,142**	1,154
Expenses relating to FFS and insurance contracts	**(1,019)**	(992)
Deferred income	**(83)**	(88)
Accrued income	**32**	31

(i) Prior year total revenue has been restated following work performed on re-analysing certain service contract income under IFRS 15.

The Group considers whether estimated future cash flows under the contracts will be sufficient to meet expected future costs. Any deficiency is charged immediately to the Group Income Statement. Claims frequency is sensitive to the reliability of appliances as well as the impact of weather conditions. The contracts are not exposed to any interest rate risk or significant credit risk and do not contain any embedded derivatives.

S8. Related party transactions

The Group's principal related party is its investment in Lake Acquisitions Limited, which owns the existing EDF UK nuclear fleet. The disclosures below, including comparatives, only refer to related parties that were related in the current reporting period.

During the year, the Group entered into the following arm's length transactions with related parties who are not members of the Group, and had the following associated balances:

	2018		2017	
	Purchase of goods and services £m	**Amounts owed to £m**	Purchase of goods and services £m	Amounts owed to £m
Associates:				
Nuclear	**(476)**	**(42)**	(527)	(40)
Joint Ventures	**(17)**	**(2)**	–	–
	(493)	**(44)**	(527)	(40)

During the year, there were no material changes to commitments in relation to joint ventures and associates.

At the balance sheet date, the Group committed facilities to the Lake Acquisition Group totalling £120 million, although nothing has been drawn at 31 December 2018.

Key management personnel comprise members of the Board and Executive Committee, a total of 18 individuals at 31 December 2018 (2017: 18).

Remuneration of key management personnel Year ended 31 December	**2018 £m**	2017 £m
Short-term benefits	**10.1**	9.8
Post-employment benefits	**1.2**	1.3
Share-based payments	**1.6**	4.8
	12.9	15.9

Remuneration of the Directors of Centrica plc Year ended 31 December	**2018 £m**	2017 (restated) (i) £m
Total emoluments (ii)	**6.0**	4.0
Amounts receivable under long-term incentive schemes	**0.9**	1.8
Contributions into pension schemes	**0.7**	0.8

(i) 2017 comparatives have been restated. Further detail is provided in the Remuneration Report on pages 90 to 103.

(ii) These emoluments were paid for services performed on behalf of the Group. No emoluments related specifically to services performed for the Company.

S9. Auditors' remuneration

Year ended 31 December	**2018 £m**	2017 £m
Fees payable to the Company's auditors for the audit of the Company's individual and consolidated:		
Financial Statements (i)	**5.6**	5.5
Audit of the Company's subsidiaries	**1.7**	1.7
Total fees related to the audit of the parent and subsidiary entities	**7.3**	7.2
Fees payable to the Company's auditors and its associates for other services:		
Audit-related assurance services	**0.8**	1.2
All other services	**0.4**	0.8
	8.5	9.2
Fees in respect of pension scheme audits (ii)	**0.1**	0.1

(i) Including £0.3 million (2017: £0.3 million) for the audit of the Ofgem Consolidated Segmental Statement.

(ii) The pension scheme audit continues to be performed by PricewaterhouseCoopers LLP.

Supplementary information (continued)

S10. Related undertakings

The Group has a large number of related undertakings principally in the UK, US, Norway, Canada, Denmark, the Netherlands and the Republic of Ireland. These are listed below.

(a) Subsidiary undertakings

Investments held directly by Centrica plc with 100% voting rights

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
Centrica Beta Holdings Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Holdings Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Trading Limited	Dormant	United Kingdom / A	Ordinary shares

Investments held indirectly by Centrica plc with 100% voting rights

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
1773648 Alberta Ltd.	Gas and/or oil exploration and production and/ or trading	Canada / B	Ordinary shares
Accord Energy (Trading) Limited	Dormant	United Kingdom / A	Ordinary shares
Accord Energy Limited	Dormant	United Kingdom / A	Ordinary shares
Airtron Inc.	Home and/or commercial services	United States / C	Ordinary shares
Alertme.com GmbH	Non-trading	Germany / D	Ordinary shares
Alertme.com Inc.	Energy management products and services	United States / E	Ordinary shares
Astrum Solar Inc.	Home and/or commercial services	United States / F	Ordinary shares
Atform Limited	Dormant	United Kingdom / A	Ordinary shares
AWHR America's Water Heater Rentals LLC	Home and/or commercial services	United States / C	Membership interest
Benjamin Franklin Franchising LLC	Home and/or commercial services	United States / G	Membership interest
Bord Gáis Energy Limited	Energy supply and power generation	Republic of Ireland / H	Ordinary shares
Bounce Energy Inc.	Energy supply	United States / C	Ordinary shares
Brae Canada Ltd.	Gas and/or oil exploration and production	Canada / B	Ordinary and preference shares
British Gas Energy Procurement Limited	Energy supply	United Kingdom / A	Ordinary shares
British Gas Finance Limited	Vehicle leasing	United Kingdom / A	Ordinary shares
British Gas Insurance Limited	Insurance provision	United Kingdom / A	Ordinary shares
British Gas Limited	Dormant	United Kingdom / A	Ordinary shares
British Gas New Heating Limited	Electrical and gas installations	United Kingdom / A	Ordinary shares
British Gas Services (Commercial) Limited	Servicing and installation of heating systems	United Kingdom / A	Ordinary shares
British Gas Services Limited	Home services	United Kingdom / A	Ordinary shares
British Gas Social Housing Limited	Servicing and installation of heating systems	United Kingdom / A	Ordinary shares
British Gas Solar Limited	Dormant	United Kingdom / A	Ordinary shares
British Gas Trading Limited	Energy supply	United Kingdom / A	Ordinary shares
Business Gas Limited	Dormant	United Kingdom / A	Ordinary shares
BuyMax LLC	Home and/or commercial services	United States / G	Membership interest
Caythorpe Gas Storage Limited	Gas storage	United Kingdom / I	Ordinary shares
CBS US Solar Fund 1, LLC [(ii)]	Distributed energy and power	United States / C	Membership interest
Centrica (IOM) Limited	Dormant	Isle of Man / J	Ordinary shares

S10. Related undertakings

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
Centrica (Lincs) Wind Farm Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Alpha Finance Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica America Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Barry Limited	Power generation	United Kingdom / A	Ordinary shares
Centrica Brigg Limited	Power generation	United Kingdom / A	Ordinary shares
Centrica Business Solutions (Generation) Limited (iii)	Power generation	United Kingdom / A	Ordinary shares
Centrica Business Solutions BV (iii)	Energy management products and services	Netherlands / Y	Ordinary shares
Centrica Business Solutions Canada Inc (iii)	Energy management products and services	Canada / B	Ordinary shares
Centrica Business Solutions International Limited (iii)	Holding company	United Kingdom / A	Ordinary shares
Centrica Business Solutions Italia Srl (iii)	Energy management products and services	Italy / X	Ordinary shares
Centrica Business Solutions México S.A. de C.V. (ii)	Energy management products and services	Mexico / BF	Ordinary shares
Centrica Business Solutions UK Limited (iii)	Energy management products and services	United Kingdom / A	Ordinary shares
Centrica Business Solutions US Inc (iii)	Energy management products and services	United States / C	Ordinary shares
Centrica Business Solutions Zrt (iii)	Energy management products and services	Hungary / W	Ordinary shares
Centrica Combined Common Investment Fund Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Delta Limited	Dormant	Isle of Man / L	Ordinary shares
Centrica Directors Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Distributed Generation Limited	Power generation	United Kingdom / A	Ordinary shares
Centrica Energy (Trading) Limited	Wholesale energy trading	United Kingdom / A	Ordinary shares
Centrica Energy Limited	Wholesale energy trading	United Kingdom / A	Ordinary shares
Centrica Energy Marketing Limited	Wholesale energy trading	United Kingdom / A	Ordinary shares
Centrica Energy Operations Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Energy Renewable Investments Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Engineers Pension Trustees Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Finance (Canada) Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Finance (Scotland) Limited	Holding company	United Kingdom / BD	Ordinary shares
Centrica Finance (US) Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Finance Investments Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Finance Norway Limited	Group financing	Jersey / O	Ordinary shares
Centrica Gamma Holdings Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Hive Canada Inc. (iii)	Energy management products and services	Canada / B	Ordinary shares
Centrica Hive Limited (iii)	Energy management products and services	United Kingdom / A	Ordinary shares
Centrica Hive SAS (ii)	Energy management products and services	France / BE	Ordinary shares
Centrica Hive Srl (iii)	Energy management products and services	Italy / K	Ordinary shares
Centrica Hive US Inc. (iii)	Energy management products and services	United States / C	Ordinary shares
Centrica HoldCo GP LLC	Holding company	United States / C	Membership interest
Centrica Ignite GP Limited	Investment company	United Kingdom / A	Ordinary shares
Centrica Ignite LP Limited	Investment company	United Kingdom / A	Ordinary shares
Centrica India Offshore Private Limited	Business services	India / P	Ordinary shares
Centrica Infrastructure Limited	Dormant	United Kingdom / BD	Ordinary shares
Centrica Innovations UK Limited	Investment company	United Kingdom / A	Ordinary shares
Centrica Innovations US Inc.	Investment company	United States / C	Ordinary shares
Centrica Insurance Company Limited	Insurance provision	Isle of Man / J	Ordinary and preference shares
Centrica International BV (iv)	Group financing	Netherlands / M	Ordinary shares
Centrica Jersey Limited	Dormant	Jersey / Q	Ordinary shares
Centrica KL Limited	Power generation	United Kingdom / A	Ordinary shares
Centrica KPS Limited	Power generation	United Kingdom / A	Ordinary shares
Centrica Lake Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Leasing (KL) Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica LNG Company Limited	LNG trading	United Kingdom / A	Ordinary shares

Supplementary information (continued)

S10. Related undertakings

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
Centrica LNG UK Limited	LNG trading	United Kingdom / A	Ordinary shares
Centrica Nederland BV	Holding company	Netherlands / M	Ordinary shares
Centrica NewCo 123 Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Nigeria Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica No.12 Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Nominees No.1 Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Offshore UK Limited	Gas and/or oil exploration and production	United Kingdom / I	Ordinary shares
Centrica Onshore Processing UK Limited	Dormant	United Kingdom / I	Ordinary shares
Centrica Overseas Holdings Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica PB Limited	Power generation	United Kingdom / A	Ordinary shares
Centrica Pension Plan Trustees Limited	Dormant	United Kingdom / A	Limited by guarantee
Centrica Pension Trustees Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Production Limited	Dormant	United Kingdom / N	Ordinary shares
Centrica Renewable Energy Limited	Holding company	United Kingdom / A	Ordinary shares
Centrica Resources (Nigeria) Limited	Non-trading	Nigeria / R	Ordinary shares
Centrica Resources (UK) Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Resources Petroleum UK Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Secretaries Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Services Limited	Business services	United Kingdom / A	Ordinary shares
Centrica Storage Holdings Limited	Holding company	United Kingdom / I	Ordinary shares
Centrica Storage Limited	Gas production and processing	United Kingdom / I	Ordinary shares
Centrica Trinidad and Tobago Limited	Business services	Trinidad and Tobago / S	Ordinary shares
Centrica Trust (No.1) Limited	Dormant	United Kingdom / A	Ordinary shares
Centrica Upstream Investment Limited	Dormant	United Kingdom / N	Ordinary shares
Centrica US Holdings Inc.	Holding company	United States / C	Ordinary shares
CH4 Energy Limited	Dormant	United Kingdom / A	Ordinary shares
CID1 Limited	Dormant	United Kingdom / A	Ordinary shares
CIU1 Limited	Dormant	United Kingdom / A	Ordinary shares
Clockwork Acquisition II Inc.	Home and/or commercial services	United States / C	Ordinary shares
Clockwork Inc.	Home and/or commercial services	United States / C	Ordinary shares
Clockwork IP LLC	Holding company	United States / C	Membership interest
CSA Offshore Services (Proprietary) Limited	Business services	South Africa / T	Ordinary shares
DEML Investments Limited	Holding company	Canada / U	Ordinary shares
DER Development No.10 Ltd.	Holding company	Canada / B	Ordinary shares
Direct Energy (B.C.) Limited	Energy supply and/or services	Canada / V	Ordinary shares
Direct Energy Business LLC	Energy supply and/or services	United States / C	Membership interest
Direct Energy Business Marketing LLC (v)	Energy supply and/or services	United States / C	Membership interest
Direct Energy GP LLC	Holding company	United States / C	Membership interest
Direct Energy Holdings (Alberta) Inc.	Home and/or commercial services	Canada / B	Ordinary shares
Direct Energy HVAC Services Ltd.	Home and/or commercial services	Canada / B	Ordinary shares
Direct Energy Leasing LLC	Home and/or commercial services	United States / C	Membership interest
Direct Energy Marketing Inc.	Wholesale energy trading	United States / C	Ordinary and preference shares
Direct Energy Marketing Limited	Energy supply and/or services	Canada / U	Ordinary shares
Direct Energy Operations LLC	Energy supply and/or services	United States / C	Membership interest
Direct Energy Services LLC	Energy supply and/or services	United States / C	Membership interest
Direct Energy Services Retail Inc.	Home and/or commercial services	United States / C	Ordinary shares
Direct Energy US Home Services Inc.	Home and/or commercial services	United States / C	Ordinary shares
Distributed Energy Asset Solutions Limited	Dormant	United Kingdom / A	Ordinary shares
Distributed Energy Customer Solutions Limited	Energy Management products and services	United Kingdom / A	Ordinary shares

S10. Related undertakings

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
Drips Limited	Dormant	United Kingdom / A	Ordinary shares
Dyno Developments Limited	Dormant	United Kingdom / A	Ordinary shares
Dyno-Plumbing Limited	Dormant	United Kingdom / A	Ordinary shares
Dyno-Rod Limited	Operation of a franchise network	United Kingdom / A	Ordinary shares
Dyno-Security Services Limited	Dormant	United Kingdom / A	Ordinary shares
Dyno-Services Limited	Dormant	United Kingdom / A	Ordinary shares
ECL Contracts Limited	Dormant	United Kingdom / A	Ordinary shares
ECL Investments Limited	Dormant	United Kingdom / A	Ordinary shares
Electricity Direct (UK) Limited	Dormant	United Kingdom / A	Ordinary shares
ENER-G Cogen International Limited	Holding company	United Kingdom / A	Ordinary shares
ENER-G Nagykanizsa Kft	Energy management products and services	Hungary / W	Ordinary shares
ENER-G Power2 Limited	Holding company	United Kingdom / A	Ordinary shares
ENER-G Rudox LLC	Energy management products and services	United States / C	Membership interest
ENER-G Technologii Energetice Srl	Energy management products and services	Romania / AA	Ordinary shares
Energy For Tomorrow	Not-for-profit energy services	United Kingdom / A	Limited by guarantee
First Choice Power LLC	Energy supply and/or services	United States / AB	Membership interest
Flowgem Limited	In liquidation	United Kingdom / A	Ordinary shares
Gateway Energy Services Corporation	Energy supply	United States / AC	Ordinary shares
GB Gas Holdings Limited	Holding company	United Kingdom / A	Ordinary shares
Generation Green Solar Limited	Dormant community benefit society	United Kingdom / A	Ordinary shares
GF One Limited [vi]	In liquidation	United Kingdom / AD	Ordinary shares
GF Two Limited [vi]	In liquidation	United Kingdom / AD	Ordinary shares
Goldbrand Development Limited	Dormant	United Kingdom / A	Ordinary shares
Hillserve Limited	Dormant	United Kingdom / A	Ordinary shares
Home Assistance UK Limited	Non-trading	United Kingdom / A	Ordinary shares
Home Warranty Holdings Corp.	Insurance provision	United States / C	Ordinary shares
Home Warranty of America Inc. [vii]	Home and/or commercial services	United States / AE	Ordinary shares
Home Warranty of America Inc. [vii]	Home and/or commercial services	United States / AF	Ordinary shares
Io-Tahoe LLC	Data management	United States / C	Membership interest
Io-Tahoe UK Limited	Data management	United Kingdom / A	Ordinary shares
Io Tahoe Ukraine LLC	Data management	Ukraine / AG	Ordinary shares
Masters Inc.	Home and/or commercial services	United States / F	Ordinary shares
Mister Sparky Franchising LLC	Home and/or commercial services	United States / AH	Membership interest
Neas Energy A/S	Energy services and wholesale energy trading	Denmark / AI	Ordinary shares
Neas Energy GmbH	Energy services and wholesale energy trading	Germany / AJ	Ordinary shares
Neas Energy Limited	Energy services and wholesale energy trading	United Kingdom / A	Ordinary shares
Neas Energy Singapore Pte. Ltd	Energy services and wholesale energy trading	Singapore / AK	Ordinary shares
Neas Fondsmæglerselskab A/S	Non-trading	Denmark / AI	Ordinary shares
Neas Invest A/S	Dormant	Denmark / AI	Ordinary shares
Newco One Limited	Dormant	United Kingdom / A	Ordinary shares
New Millennium Academy LLC	Home and/or commercial services	United States / G	Membership interest
North Sea Infrastructure Partners Limited	Dormant	United Kingdom / BD	Ordinary shares
NSIP (Holdings) Limited	Dormant	United Kingdom / BD	Ordinary shares
One Hour Air Conditioning Franchising LLC	Home and/or commercial services	United States / AH	Membership interest
P.H. Jones Facilities Management Ltd	Servicing and maintenance of heating systems	United Kingdom / A	Ordinary shares
P.H Jones Group Limited	Holding company	United Kingdom / A	Ordinary shares
Panoramic Power Ltd.	Energy management products and services	Israel / AL	Ordinary shares
Pioneer Shipping Limited	Sea freight water transport	United Kingdom / A	Ordinary Shares
Quality A/C Service LLC	Home and/or commercial services	United States / AM	Membership interest
Repair and Care Limited	Dormant	United Kingdom / A	Ordinary shares
REstore Deutschland GmbH	Demand response aggregation	Germany / AN	Ordinary shares

Supplementary information (continued)

S10. Related undertakings

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
REstore Flexpond UK Limited	Demand response aggregation	United Kingdom / A	Ordinary shares
REstore France SAS	Demand response aggregation	France / AP	Ordinary shares
REstore North America LLC	Demand response aggregation	United States / AQ	Membership interest
REstore NV	Demand response aggregation	Belgium / AR	Ordinary shares
RSG Holding Corp.	Holding company	United States / C	Ordinary shares
Solar Technologies Group Limited	Dormant	United Kingdom / A	Ordinary shares
Solar Technologies Limited	Dormant	United Kingdom / A	Ordinary shares
Soren Limited	Dormant	United Kingdom / A	Ordinary shares
SuccessWare Inc.	Home and/or commercial services	United States / G	Ordinary shares
T.A. Kaiser Heating & Air, Inc [ii]	Home and/or commercial services	United States / BG	Ordinary shares
UWIN LLC	Home and/or commercial services	United States / AH	Membership interest
Victorville Energy Center, LLC [ii]	Distributed energy and power	United States / C	Membership interest
Vista Solar, Inc [ii]	Distributed energy and power	United States / BH	Ordinary shares

Investments held indirectly by Centrica plc with 69% voting rights

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
Bayerngas Norge AS	Gas and/or oil exploration and production	Norway / AS	Ordinary shares
Bayerngas Produksjon Norge AS	Finance company	Norway / AS	Ordinary shares
Bowland Resources (No.2) Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Bowland Resources Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Elswick Energy Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
NSGP (Ensign) Limited	Gas and/or oil exploration and production	Jersey / AT	Ordinary shares
Spirit Energy Danmark ApS	Gas and/or oil exploration and production	Denmark / AU	Ordinary shares
Spirit Energy Hedging Holding Limited	Dormant	United Kingdom / BJ	Ordinary shares
Spirit Energy Hedging Limited	Dormant	United Kingdom / BJ	Ordinary shares
Spirit Energy Limited [viii]	Holding company	United Kingdom / BJ	Ordinary and deferred shares
Spirit Energy Nederland BV	Gas and/or oil exploration and production	Netherlands / M	Ordinary shares
Spirit Energy Norge AS	Gas and/or oil exploration and production	Norway / AV	Ordinary shares
Spirit Energy North Sea Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Spirit Energy North Sea Oil Limited	Gas and/or oil exploration and production	United Kingdom / N	Ordinary shares
Spirit Energy Petroleum Danmark AS [ix]	Gas and/or oil exploration and production	Norway / AS	Ordinary shares
Spirit Energy Production UK Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Spirit Energy Resources Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Spirit Energy Southern North Sea Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Spirit Energy Treasury Limited	Finance company	United Kingdom / BJ	Ordinary shares
Spirit Energy WOS Limited [ii]	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Spirit Europe Limited [x]	Holding company	United Kingdom / BJ	Ordinary shares
Spirit Infrastructure BV	Construction, ownership and exploitation of infrastructure	Netherlands / M	Ordinary shares
Spirit North Sea Gas Limited	Gas and/or oil exploration and production	United Kingdom / N	Ordinary shares
Spirit Norway Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares
Spirit Production (Services) Limited	Business services	United Kingdom / N	Ordinary shares
Spirit Resources (Armada) Limited	Gas and/or oil exploration and production	United Kingdom / BJ	Ordinary shares

(i) For list of registered addresses, refer to note S10(d).
(ii) Acquired or established in 2018.
(iii) The following name changes were made during the year: Combined Power (South) Limited to Centrica Business Solutions (Generation) Limited; ENER-G Nedale BV to Centrica Business Solutions BV; Distributed Energy Canada Inc to Centrica Business Solutions Canada Inc; GLID Limited to Centrica Business Solutions International Limited; ENER-G Italia Srl to Centrica Business Solutions Italia Srl; ENER-G Combined Power Limited to Centrica Business Solutions UK Limited; Distributed Energy US Inc to Centrica Business Solutions US Inc; ENER-G Energia Technologia Zrt to Centrica Business Solutions Zrt; Centrica Connected Home Canada Inc to Centrica Hive Canada Inc; Centrica Connected Home Limited to Centrica Hive Limited; Centrica Connected Home Italy Srl to Centrica Hive Srl and Centrica Connected Home US Inc to Centrica Hive US Inc.
(iv) Centrica International BV merged with Centrica International C BV on 27 November 2018.
(v) NJR Retail Services Company was acquired in February 2018 and changed its name to Direct Energy RS Gas Inc in May 2018. On 30 November 2018 it was merged with Direct Energy Business Marketing LLC.
(vi) GF One Limited and GF Two Limited are 75% indirectly owned by Centrica plc.
(vii) Home Warranty of America Inc. is registered as separate entities in the states of California and Illinois.
(viii) Spirit Energy Limited changed the class of shares held from ordinary and preference shares to ordinary and deferred shares during 2018.
(ix) Spirit Energy Petroleum Danmark AS principally operates in Denmark.
(x) Spirit Europe Limited was renamed during the year (previously Spirit Europe Ltd).

S10. Related undertakings

(b) Subsidiary undertakings – partnerships held indirectly by Centrica plc with 100% voting rights

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held
CF 2016 LLP	Group financing	United Kingdom / A	Membership interest
CFCEPS LLP	Group financing	United Kingdom / A	Membership interest
CFCPP LLP	Group financing	United Kingdom / A	Membership interest
CPL Retail Energy LP	Energy supply	United States / C	Membership interest
Direct Energy LP	Energy supply	United States / AB	Membership interest
Direct Energy Partnership	Energy supply	Canada / B	Membership interest
Direct Energy Resources Partnership	Holding entity	Canada / B	Membership interest
Finance Scotland 2016 Limited Partnership	Group financing	United Kingdom / N	Membership interest
Finance Scotland CEPS Limited Partnership	Group financing	United Kingdom / N	Membership interest
Finance Scotland CPP Limited Partnership	Group financing	United Kingdom / N	Membership interest
Ignite Social Enterprise LP	Social enterprise investment fund	United Kingdom / A	Membership interest
WTU Retail Energy LP	Energy supply	United States / C	Membership interest

(i) For list of registered addresses, refer to note S10(d).

The following partnerships are fully consolidated into the Group Financial Statements and the Group has taken advantage of the exemption (as confirmed by regulation 7 of the Partnerships (Accounts) Regulations 2008) not to prepare or file separate accounts for these entities:

- Finance Scotland 2016 Limited Partnership;
- Finance Scotland CEPS Limited Partnership;
- Finance Scotland CPP Limited Partnership;
- Finance Scotland CPS Limited Partnership; and
- Ignite Social Enterprise LP.

(c) Joint arrangements and associates

31 December 2018	Principal activity	Country of incorporation/ registered address key (i)	Class of shares held	Indirect interest and voting rights (%)
Joint ventures (ii)				
Allegheny Solar 1 LLC	Energy supply and/or services	United States / AX	Membership interest	40.0%
Barrow Shipping Limited (iii)	Energy supply and/or services	United Kingdom / BI	Ordinary shares	50.0%
Celtic Array Limited	Development of an offshore windfarm	United Kingdom / A	Ordinary shares	50.0%
Eurowind Polska VI Sp z.o.o.	Operation of an onshore windfarm	Poland / AY	Ordinary shares	50.0%
Greener Ideas Limited	Development of flexible power generation sites	Republic of Ireland / AZ	Ordinary shares	50.0%
Rhiannon Wind Farm Limited	Dormant	United Kingdom / A	Ordinary shares	50.0%
Three Rivers Solar 1 LLC	Energy supply and/or services	United States / AX	Membership interest	40.0%
Three Rivers Solar 2 LLC	Energy supply and/or services	United States / AX	Membership interest	40.0%
Three Rivers Solar 3 LLC	Energy supply and/or services	United States / AX	Membership interest	40.0%
Vindpark Keblowo ApS	Operation of an onshore windfarm	Denmark / BA	Ordinary shares	50.0%
Associates (ii)				
Lake Acquisitions Limited	Holding company	United Kingdom / BB	Ordinary shares	20.0%
Veolia CHP Ireland Limited	Energy supply and power generation	Republic of Ireland / BC	Ordinary shares	20.0%

(i) For list of registered addresses, refer to note S10(d).
(ii) Further information on the principal joint ventures and associate investments held by the Group is disclosed in notes 6 and 14.
(iii) Acquired in 2018.

All Group companies principally operate within their country of incorporation unless noted otherwise.

Supplementary information (continued)

S10. Related undertakings

(d) List of registered addresses

Registered address key	Address
A	Millstream, Maidenhead Road, Windsor, SL4 5GD, United Kingdom [(i)]
B	2323 32nd Avenue N.E., Suite 260, Calgary, AB T2E 6Z3, Canada
C	3411 Silverside Road, Suite 104, Tatnall Building, Wilmington, DE 19810, United States
D	Thomas-Wimmer-Ring 1-3, 80539, Munich, Germany
E	1521 Concord Pike #303, Wilmington, DE 19803, United States
F	2 Wisconsin Circle #700, Chevy Chase, MD 20815, United States
G	12747 Olive Boulevard #300, Jefferson City, MO 63141, United States
H	1 Warrington Place, Dublin 2, Republic of Ireland
I	Woodland House, Woodland Park, Hessle, HU13 0FA, United Kingdom
J	St George's Court, Upper Church Street, Douglas, IM1 1EE, Isle of Man
K	Via Paleocapa Pietro 4, 20121, Milano, Italy
L	33-37 Athol Street, Douglas, IM1 1LB, Isle of Man
M	Polarisavenue 39, 2132 JH Hoofddorp, Netherlands
N	IQ Building, 15 Justice Mill Lane, Aberdeen, AB11 6EQ, United Kingdom
O	47 Esplanade, St Helier, JE1 0BD, Jersey
P	G-74, LGF, Kalkaji, New Delhi, South Delhi, Delhi, 110019, India
Q	26 New Street, St Helier, JE2 3RA, Jersey
R	Sterling Towers, 20 Marina, Lagos, Nigeria
S	48-50 Sackville Street, Port of Spain, Trinidad and Tobago
T	No.12A Sooty Street, Cnr Reddersburg & Virginia Street, Amberfield Glen, Rooihuiskraal, North Centurion Gauteng, 0175, South Africa
U	333 Bay Street, Suite 400, Toronto ON, M5H 2R2, Canada
V	1185 West Georgia Street, Suite 1700, Vancouver BC, V6E 4E6, Canada
W	H-1106 Budapest Jászberényi út 24-36, Hungary
X	Milan (MI), Via Emilio Cornalia 26, Italy
Y	Wiegerbruinlaan 2A, 1422 CB Uithoorn, Netherlands
Z	811 Church Road #105, Cherry Hill NJ, 08002, United States
AA	15-23 Bucuresti Nord Street, Windsor Building, Ground Floor, Office No.1 Voluntari, Ilfov County, Romania
AB	2425 W. Loop South, #200, TX 77027, United States
AC	15 North Mill Street, Nyack, NY 10960, United States
AD	1 More London Place, London, SE1 2AF, United Kingdom
AE	1430 Truxtun Avenue, 5th floor, Bakersfield, CA 93301, United States
AF	350 S. Northwest Highway #300, Park Ridge, IL 60068, United States
AG	20 A Heroiev Stalingrada Avenue, Kyiv 04210, Ukraine
AH	11380 Prosperity Farms Road #221E, Palm Beach Gardens, FL 33410, United States
AI	Skelagervej 1, DK 9000 Aalborg, Denmark
AJ	Schillerstr.7, 40721 Hilden (bei Düsseldorf), Germany
AK	220 Orchard Road, #05-01 Midpoint Orchard, Singapore 238852, Republic of Singapore
AL	15 Atir Yeda Street, Kfar Saba, 44643, Israel
AM	8275 South Eastern Avenue #200, Las Vegas, NV 89123, United States
AN	Graf-Adolf-Platz 12, 40213 Düsseldorf, Germany
AO	1 Glass Wharf, Bristol, BS2 0ZX, United Kingdom
AP	Place de la Défense 12, Maison de la Défense, 92974 Paris, France
AQ	WTS LLC, 67 East Park Place, Morristown, New Jersey 07960, United States
AR	Posthofbrug 12, 2600 Antwerp, Belgium
AS	Lilleakerveien 8, 0283 Oslo, Norway
AT	13 Castle Street, St Helier, JE4 5UT, Jersey
AU	Rådhuspladsen 16, 1550 København V, Denmark
AV	Veritasvien 25, 4007 Stavanger, Norway
AW	160 London Road, Suite 4a London Road, Sevenoaks, Kent, TN13 1BT, United Kingdom
AX	1209 Orange Street, Wilmington, New Castle County, DE 19801, United States
AY	Ul. Wysogotowska 23, 62-081 Przezmierowo, Wielkpolskie, Poland
AZ	Webworks, Eglinton Street, Cork, Republic of Ireland
BA	Mariagervej 58B, DK 9500 Hobro, Denmark
BB	90 Whitfield Street, London, W1T 4EZ, United Kingdom
BC	Innovation House, DCU Innovation Campus, 11 Old Finglas Road, Glasnevin, Dublin 11, Republic of Ireland

S10. Related undertakings

Registered address key	Address
BD	1 Waterfront Avenue, Edinburgh, Scotland EH5 1SG (ii)
BE	3 Boulevard de Sebastopol, 75001, Paris, France
BF	Av. Presidente Masaryk No 61 Int 503 Col Chapultepec Morales, Miguel Hidalgo Ciudad de Mexico, Mexico 11570
BG	1657 Commerce Drive #9B, South Bend, Indiana 46628, United States
BH	4640 Admiralty Way, 5th floor, Marine del Rey, California 90292, United States
BI	C/O Wilkin Chapman LLP, The Maltings, 11-15 Brayford Wharf East, Lincoln, LN5 7AY, United Kingdom
BJ	First Floor, 20 Kingston Road, Staines-upon-Thames, TW18 4LG, United Kingdom (iii) (iv)

(i) Restore Flexpond UK Limited changed its registered office on 9 January 2019 from 1 Glass Wharf, Bristol, BS2 OZX, United Kingdom to the address listed above.

(ii) North Sea Infrastructure Partners Limited and NSIP (Holdings) Limited changed its registered office during the year from IQ Building, 15 Justice Mill Lane, Aberdeen, AB11 6EQ to the address listed above.

(iii) Bowland Resources (No. 2) Limited, Bowland Resources Limited, Elswick Energy Limited, Spirit Energy Hedging Holding Limited, Spirit Energy Hedging Limited, Spirit Energy Limited, Spirit Energy North Sea Limited, Spirit Energy Production UK Limited, Spirit Energy Resources Limited, Spirit Energy Treasury Limited, Spirit Energy WOS Limited, Spirit Norway Limited and Spirit Resources (Armada) Limited changed their registered address on 30 January 2019 from Millstream, Maidenhead Road, Windsor, SL4 5GD to the address listed above.

(iv) Spirit Energy Southern North Sea Limited and Spirit Europe Limited changed their registered address on 30 January 2019 from 160 London Road, Suite 4a London Road, Sevenoaks, Kent, TN13 1BT to the address listed above.

(e) Summarised financial information

Material associates and joint arrangements

Management has determined that the investment in Lake Acquisitions Limited is sufficiently material to warrant further disclosure on an individual basis. Accordingly, the Group presents summarised financial information, along with reconciliations to the amounts included in the consolidated Group Financial Statements, for this investee.

Lake Acquisitions Limited

Summarised statement of total comprehensive income

	2018				2017			
Year ended 31 December	**Associate information reported to Group £m**	**Unadjusted 20% share £m**	**Fair value and other adjustments £m**	**Group share £m**	Associate information reported to Group £m	Unadjusted 20% share £m	Fair value and other adjustments £m	Group share £m
Revenue	**2,446**	**489**	**–**	**489**	2,690	538	–	538
Operating profit before interest and tax	**233**	**46**	**(66)**	**(20)**	482	96	(67)	29
Profit for the year	**153**	**31**	**(49)**	**(18)**	347	69	(46)	23
Other comprehensive income	**(6)**	**(1)**	**–**	**(1)**	213	43	–	43
Total comprehensive income	**147**	**30**	**(49)**	**(19)**	560	112	(46)	66

Summarised balance sheet

	2018				2017			
31 December	**Associate information reported to Group £m**	**Unadjusted 20% share £m**	**Fair value and other adjustments (i) £m**	**Group share £m**	Associate information reported to Group £m	Unadjusted 20% share £m	Fair value and other adjustments (i) £m	Group share £m
Non-current assets	**15,209**	**3,042**	**758**	**3,800**	14,282	2,856	822	3,678
Current assets	**3,237**	**648**	**(1)**	**647**	3,452	691	1	692
Current liabilities	**(670)**	**(134)**	**–**	**(134)**	(695)	(139)	–	(139)
Non-current liabilities	**(9,833)**	**(1,967)**	**(115)**	**(2,082)**	(9,141)	(1,828)	(133)	(1,961)
Net assets	**7,943**	**1,589**	**642**	**2,231**	7,898	1,580	690	2,270

(i) Before cumulative impairments of £586 million (2017: £586 million) of the Group's associate investment.

During the year, dividends of £20 million (2017: £57 million) were paid by the associate to the Group.

Joint operations – fields/assets

31 December 2018	Location	Percentage holding
Cygnus	UK North Sea	61%
Hejre	Denmark	40%

Supplementary information (continued)

S11. Non-controlling interests

The Group has one subsidiary undertaking with a non-controlling interest: Spirit Energy Limited, which is the parent company of the combined business that comprises the acquired Bayerngas Norge exploration and production business and the Group's existing Exploration & Production business.

	2018					2017				
31 December	Non-controlling interests %	Profit for the year £m	Total comprehensive income £m	Total equity £m	Distributions to non-controlling interests £m	Non-controlling interests %	Profit for the year £m	Total comprehensive income £m	Total equity £m	Distributions to non-controlling interests £m
Spirit Energy Limited	31%	59	60	803	–	31%	5	8	729	–

Summarised financial information

The summarised financial information disclosed is shown on a 100% basis. It represents the consolidated position of Spirit Energy Limited and its subsidiaries that would be shown in its consolidated financial statements prepared in accordance with IFRS under Group accounting policies before intercompany eliminations from the date of acquisition on 8 December 2017.

Summarised statement of total comprehensive income

Year ended 31 December	2018 £m	2017 £m
Revenue	1,854	160
Profit for the year	191	17
Other comprehensive income	3	10
Total comprehensive income	194	27

Summarised balance sheet

31 December	2018 £m	2017 £m
Non-current assets	4,775	4,768
Current assets	1,243	756
Current liabilities	(949)	(799)
Non-current liabilities	(2,479)	(2,373)
Net assets	2,590	2,352

Other reserves movements during the year represent measurement period differences between the fair value and the carrying value of assets contributed to Spirit Energy Limited in 2017.

Summarised cash flow

Year ended 31 December	2018 £m	2017 £m
Net increase/(decrease) in cash and cash equivalents	37	(71)

Company Statement of Changes in Equity

	Share capital £m	Share premium £m	Capital redemption reserve £m	Retained earnings £m	Other equity (note II) £m	Total equity £m
1 January 2017	342	1,929	26	2,313	(140)	4,470
Profit for the year	–	–	–	1,089	–	1,089
Other comprehensive income/(loss):						
Gains on revaluation of available-for-sale equity instruments	–	–	–	–	6	6
Cash flow hedges – net gains	–	–	–	–	28	28
Cash flow hedges – transferred to income and expense	–	–	–	–	(29)	(29)
Actuarial loss	–	–	–	–	16	16
Taxation on above items	–	–	–	–	(4)	(4)
Other equity movements:						
Employee share schemes	–	–	–	4	31	35
Scrip dividend	6	192	–	–	–	198
Dividends paid to equity holders	–	–	–	(661)	–	(661)
31 December 2017	348	2,121	26	2,745	(92)	5,148
Adjustment on adoption of IFRS 9 [(i)]	–	–	–	(14)	(28)	**(42)**
Profit for the year	–	–	–	634	–	**634**
Other comprehensive income/(loss):						
Losses on revaluation of equity investments measured at fair value through other comprehensive income	–	–	–	–	(2)	**(2)**
Cash flow hedges – net gains	–	–	–	–	22	**22**
Cash flow hedges – transferred to income and expense	–	–	–	–	(10)	**(10)**
Actuarial gain	–	–	–	–	133	**133**
Taxation on above items	–	–	–	–	(26)	**(26)**
Other equity movements:						
Employee share schemes	–	–	–	3	27	**30**
Scrip dividend	6	119	–	–	–	**125**
Dividends paid to equity holders	–	–	–	(673)	–	**(673)**
31 December 2018	**354**	**2,240**	**26**	**2,695**	**24**	**5,339**

(i) See note I for further details of adjustments and restatements arising on transition to IFRS 9 ‘Financial Instruments’.

As permitted by section 408(3) of the Companies Act 2006 no Income Statement or Statement of Comprehensive Income is presented.

The Directors propose a final dividend of 8.40 pence per share (totalling £479 million) for the year ended 31 December 2018. Details of the dividends are given in note 11 to the consolidated Group Financial Statements.

Details of the Company’s share capital are provided in the Group Statement of Changes in Equity and note 25 to the consolidated Group Financial Statements.

The notes on pages 211 to 219 form part of these Financial Statements, along with note 25 to the consolidated Group Financial Statements.

Company Balance Sheet

31 December	Notes	2018 £m	2017 £m
Non-current assets			
Property, plant and equipment	IV	**24**	4
Other intangible assets	V	**–**	69
Investments	VI	**2,258**	2,286
Trade and other receivables	VIII	**44**	1,075
Derivative financial instruments	IX	**208**	300
Retirement benefit assets	XVI	**154**	33
Securities	XI	**216**	222
		2,904	3,989
Current assets			
Trade and other receivables	VIII	**13,422**	11,481
Derivative financial instruments	IX	**76**	90
Current tax assets		**11**	11
Cash and cash equivalents	XII	**713**	2,300
		14,222	13,882
Total assets		**17,126**	17,871
Current liabilities			
Derivative financial instruments	IX	**(34)**	(43)
Trade and other payables	XIII	**(7,049)**	(6,522)
Provisions for other liabilities and charges	XIV	**(2)**	(4)
Bank overdrafts, loans and other borrowings	XV	**(203)**	(543)
		(7,288)	(7,112)
Non-current liabilities			
Deferred tax liabilities	VII	**(20)**	–
Derivative financial instruments	IX	**(44)**	(57)
Trade and other payables	XIII	**(134)**	(89)
Provisions for other liabilities and charges	XIV	**–**	(3)
Retirement benefit liabilities	XVI	**(63)**	(63)
Bank loans and other borrowings	XV	**(4,238)**	(5,399)
		(4,499)	(5,611)
Total liabilities		**(11,787)**	(12,723)
Net assets		**5,339**	5,148
Share capital		**354**	348
Share premium		**2,240**	2,121
Capital redemption reserve		**26**	26
Retained earnings [(i)]		**2,695**	2,745
Other equity	II	**24**	(92)
Total shareholders' equity		**5,339**	5,148

(i) Retained earnings includes a net profit after taxation of £634 million (2017: £1,089 million).

The Financial Statements on pages 209 to 219, of which the notes on pages 211 to 219 form part, along with note 25 to the consolidated Group Financial Statements, were approved and authorised for issue by the Board of Directors on 20 February 2019 and were signed on its behalf by:

Iain Conn
Group Chief Executive

Chris O'Shea
Group Chief Financial Officer

Notes to the Company Financial Statements

I. General information and principal accounting policies of the Company

General information

The Company is a public company limited by shares, incorporated and domiciled in the UK, and registered in England and Wales. The registered office is Millstream, Maidenhead Road, Windsor, Berkshire, SL4 5GD.

The Company Financial Statements are presented in pounds sterling with all values rounded to the nearest million pounds. Pounds sterling is the functional currency of the Company.

Basis of preparation

The Company Financial Statements 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, measurement and disclosure requirements of International Financial Reporting Standards as adopted by the EU (Adopted IFRSs), but makes amendments where necessary in order to comply with Companies Act 2006 and sets out below where advantage of the FRS 101 disclosure exemptions has been taken.

From 1 January 2018, the following amendments are effective in the Company's Financial Statements:

- IFRS 9, 'Financial Instruments';
- IFRS 15, 'Revenue from Contracts with Customers';
- Classification and Measurement of Share-based Payment Transactions - Amendments to IFRS 2;
- Annual Improvements 2014-2016 cycle;
- Transfers of Investment Property - Amendments to IAS 40; and
- Interpretation 22, 'Foreign Currency Transactions and Advance Consideration'.

The impact of adoption of IFRS 9 is detailed in note 1 of the Group Financial Statements, and the impact of the impairment model changes on Company-specific financial assets and financial guarantee contracts is detailed in the Impairment section below. No other standards or amendments had a material impact on the Financial Statements.

In these Financial Statements, the Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

- the requirements of IAS 7: 'Statement of cash flows';
- the statement of compliance with Adopted IFRSs;
- the effects of new but not yet effective IFRSs;
- prior year reconciliations for property, plant and equipment and intangible assets;
- the prior year reconciliation in the number of shares outstanding at the beginning and at the end of the year for share capital;
- disclosures in respect of related party transactions with wholly owned subsidiaries in a group;
- disclosures in respect of the compensation of key management personnel; and
- disclosures in respect of capital management.

As the consolidated Financial Statements of Centrica plc, which are available from the registered office, include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of the following disclosures:

- IFRS 2: 'Share-based payment' in respect of Group-settled share-based payments; and
- certain disclosures required by IFRS 13: 'Fair value measurement' and the disclosures required by IFRS 7: 'Financial instruments: disclosures' have not been provided apart from those which are relevant for the financial instruments which are held at fair value.

Measurement convention

The Company Financial Statements have been prepared on the historical cost basis except for: investments in subsidiaries that have been recognised at deemed cost on transition to FRS 101; derivative financial instruments, financial instruments designated at fair value through profit or loss on initial recognition or required to be measured at fair value through profit or loss or other comprehensive income on initial recognition, and the assets of the defined benefit pension schemes that have been measured at fair value; the liabilities of the defined benefit pension schemes that have been measured using the projected unit credit valuation method; and the carrying values of recognised assets and liabilities qualifying as hedged items in fair value hedges that have been adjusted from cost by the changes in the fair values attributable to the risks that are being hedged.

Going concern

The accounts have been prepared on a going concern basis, as described in the Directors' Report and note 24(b) of the consolidated Group Financial Statements.

Critical accounting judgements and key sources of estimation uncertainty

The Company does not have any critical accounting judgements. It is subject to estimation uncertainty related to its share of the Group's pension scheme surplus/deficit, as detailed further in note 22 of the consolidated Group Financial Statements.

The other sources of estimation uncertainty most applicable to the Company do not give rise to a significant risk of material adjustment to the carrying value of the Company's assets and liabilities.

Notes to the Company Financial Statements (continued)

I. General information and principal accounting policies of the Company

Principal accounting policies

The accounting policies set out below have, unless otherwise stated, been applied consistently to all periods presented in these Company Financial Statements.

Employee share schemes

The Group has a number of employee share schemes under which it makes equity-settled share-based payments as detailed in the Remuneration Report on pages 90 to 103 and in note S2 to the consolidated Group Financial Statements. Equity-settled share-based payments are measured at fair value at the date of grant (excluding the effect of non-market-based vesting conditions). The fair value determined at the grant date is expensed on a straight-line basis together with a corresponding increase in equity over the vesting period, based on the Group's estimate of the number of awards that will vest and adjusted for the effect of non-market-based vesting conditions. The issue of share incentives by the Company to employees of its subsidiaries represents additional capital contributions. When these costs are recharged to the subsidiary undertaking, the investment balance is reduced accordingly.

Fair value is measured using methods detailed in note S2 to the consolidated Group Financial Statements.

Foreign currencies

The Company's functional and presentational currency is pounds sterling. Transactions in foreign currencies are translated at the rate of exchange ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into pounds sterling at closing rates of exchange. Exchange differences on monetary assets and liabilities are taken to the Income Statement.

Property, plant and equipment

PP&E is included in the Balance Sheet at cost, less accumulated depreciation and any provisions for impairment. The initial cost of an asset comprises purchase price and construction cost and any costs directly attributable to bringing the asset into operation. The purchase price or construction cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

Depreciation is charged so as to write off the cost of assets over their estimated useful lives, on a straight-line basis, over a period of 3 to 10 years.

Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. Intangible assets consist of application software for internal use. The cost of purchased application software, for example investments in financial and administrative systems, includes contractors' charges, materials, directly attributable labour and directly attributable overheads. Intangible assets are amortised on a straight-line basis at rates sufficient to write off the cost, less estimated residual values, of individual assets over their estimated useful lives of up to 10 years. Amortisation of assets under construction commences when the asset is operational.

Investments

Fixed asset investments in subsidiaries' shares are held at deemed cost on transition to FRS 101 and at cost in accordance with IAS 27: 'Separate financial statements', less any provision for impairment as necessary for any subsequent investments.

Impairment

The Company's accounting policies in respect of impairment of property, plant and equipment, intangible assets and financial assets are consistent with those of the Group.

The carrying values of investments in subsidiary undertakings are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

The recoverable amount of an investment in a subsidiary undertaking is the greater of its value in use and its fair value less costs of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. The Company's impairment policies in relation to financial assets are consistent with those of the Group, with additional consideration given to amounts owed by Group undertakings. Except for certain loans due in greater than one year, all outstanding receivable balances are repayable on demand and arise from funding provided by the Company to its subsidiaries. The Company deems it unlikely that net receivers of funding would be able to repay loan balances in full at the end of the reporting period if the debt was called upon and in such circumstances the counterparty would either negotiate extended credit terms with the Company or obtain external financing to repay the balance. As such, the expected credit loss is either considered immaterial based on discounting the loan over the extended payment term, or has been calculated by applying a default loss rate based on the actual or proxy credit rating of the counterparty. No change in credit risk is deemed to have occurred since initial recognition for amounts not repayable and therefore a 12-month expected credit loss has been calculated based on the assessed probability of default.

The Company has applied the impairment requirements of IFRS 9 to financial guarantees issued to its subsidiary undertakings. Expected credit losses on such arrangements have been calculated according to the nature of the guarantee and the Company's perceived exposure at the balance sheet date.

On initial application of IFRS 9, the Company recognised an additional provision for expected credit losses on amounts owed by Group undertakings and financial guarantee contracts issued to subsidiaries of £42 million.

I. General information and principal accounting policies of the Company

Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement and requires an assessment of whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets and whether the arrangement conveys a right to use the asset or assets. Leases are classified as finance leases whenever the terms of the lease transfer substantially all of the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Payments under operating leases are charged to the Income Statement on a straight-line basis over the term of the lease.

Pensions and other post-employment benefits

The Company's employees participate in a number of the Group's defined benefit pension schemes. The total Group cost of providing benefits under defined benefit schemes is determined separately for each of the Group's schemes under the projected unit credit actuarial valuation method. Actuarial gains and losses are recognised in full in the period in which they occur. The key assumptions used for the actuarial valuation are based on the Group's best estimate of the variables that will determine the ultimate cost of providing post-employment benefits, on which further detail is provided in notes 3(b) and 22 to the consolidated Group Financial Statements.

The Company's share of the total Group surplus or deficit at the end of the reporting period for each scheme is calculated in proportion to the Company's share of ordinary employer contributions to that scheme during the year; ordinary employer contributions are determined by the pensionable pay of the Company's employees within the scheme and the cash contribution rates set by the scheme trustees. Note that as a participant in these multi-employer schemes, the Company could be liable for other entities' obligations (for example under section 75 of the Pensions Act). See note 22 of the consolidated Group Financial Statements for details of the overall scheme obligations. Current service cost is calculated with reference to the pensionable pay of the Company's employees. The Company's share of the total Group interest on scheme liabilities, expected return on scheme assets and actuarial gains or losses is calculated in proportion to ordinary employer contributions in the prior accounting period. Changes in the surplus or deficit arising as a result of the changes in the Company's share of total ordinary employer contributions are also treated as actuarial gains or losses.

Taxation

Current tax, including UK corporation tax, is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is recognised in respect of all temporary differences identified at the balance sheet date, except for differences arising on:

- the initial recognition of an asset or liability in a transaction which is not a business combination and which at the time of the transaction affects neither accounting profit nor taxable profit; and
- investments in subsidiaries where the Company is able to control the timing of the reversal of the difference and it is probable that the difference will not reverse in the foreseeable future.

Temporary differences are differences between the carrying amount of the Company's assets and liabilities and their tax base.

Deferred tax assets and liabilities are offset when the Company has a legally enforceable right to offset current tax assets and liabilities and the deferred tax assets and liabilities relate to taxes levied by the same tax authority.

Deferred tax assets that are not eligible for offset against deferred tax liabilities are recognised only when, on the basis of all available evidence, it can be regarded as probable that there will be suitable taxable profits in the foreseeable future, against which the deductible temporary difference can be utilised.

Deferred tax is measured at the average tax rates that are expected to apply in the periods in which the asset is realised or the liability is settled, based on tax rates and laws that have been enacted or substantively enacted by the balance sheet date. Measurement of deferred tax liabilities and assets reflects the tax consequences expected from the manner in which the asset or liability is recovered or settled.

The tax expense for the period comprises current and deferred tax. Tax is recognised in the Income Statement, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

Financial instruments

The Company's accounting policies for financial instruments are consistent with those of the Group as disclosed in note S2 to the consolidated Group Financial Statements. The Company's financial risk management policies are consistent with those of the Group and are described in the Strategic Report – Principal Risks and Uncertainties on pages 41 to 50 and in note S3 to the Group Financial Statements.

Presentation of derivative financial instruments

In line with the Group's accounting policy for derivative financial instruments, the Company has classified those derivatives held for the purpose of treasury management as current or non-current, based on expected settlement dates.

Provisions

A provision is recognised when the Company has a present obligation (legal or constructive) as a result of a past event that can be measured reliably and it is probable that an outflow of economic benefit will be required to settle the obligation.

Notes to the Company Financial Statements (continued)

II. Other equity

	Cash flow hedging reserve £m	Actuarial gains and losses reserve £m	Financial asset at FVOCI reserve (previously AFS) £m	Treasury and own shares reserve £m	Share-based payments reserve £m	Total £m
1 January 2017	–	(95)	28	(180)	107	(140)
Gains on revaluation of available-for-sale equity instruments	–	–	6	–	–	6
Actuarial gain	–	16	–	–	–	16
Employee share schemes:						
Increase in own shares	–	–	–	(11)	–	(11)
Exercise of awards	–	–	–	49	(54)	(5)
Value of services provided	–	–	–	–	47	47
Cash flow hedges:						
Net gains	28	–	–	–	–	28
Transferred to income and expense	(29)	–	–	–	–	(29)
Taxation on above items	–	(3)	(1)	–	–	(4)
31 December 2017	(1)	(82)	33	(142)	100	(92)
Adjustment on adoption of IFRS 9 [(i)]	–	–	(28)	–	–	**(28)**
Losses on revaluation of equity investments measured at fair value through other comprehensive income	–	–	(2)	–	–	**(2)**
Actuarial gain	–	133	–	–	–	**133**
Employee share schemes:						
Increase in own shares	–	–	–	(11)	–	**(11)**
Exercise of awards	–	–	–	46	(51)	**(5)**
Value of services provided	–	–	–	–	43	**43**
Cash flow hedges:						
Net gains	22	–	–	–	–	**22**
Transferred to income and expense	(10)	–	–	–	–	**(10)**
Taxation on above items	(2)	(25)	1	–	–	**(26)**
31 December 2018	**9**	**26**	**4**	**(107)**	**92**	**24**

[(i)] See note I for further details of adjustments and restatements arising on transition to IFRS 9: 'Financial Instruments'.

III. Directors and employees

Employee costs

Year ended 31 December	2018 £m	2017 £m
Wages and salaries	**(20)**	(58)
Social security costs	**(3)**	(6)
Pension and other post-retirement benefits costs	**(7)**	(20)
Share scheme costs	**(6)**	(5)
Capitalised employee costs	**–**	1
	(36)	(88)

Average number of employees during the year

Year ended 31 December	2018 Number	2017 Number
Administration	**66**	368
Power	**79**	121
	145	489

IV. Property, plant and equipment

	2018 £m
Cost	
1 January	**4**
Additions	**28**
Disposals	**(3)**
31 December	**29**
Accumulated depreciation	
1 January	**–**
Charge for year	**(5)**
31 December	**(5)**
NBV at 31 December	**24**

Included within the above balance is £23 million (2017: nil) of assets held under finance leases.

V. Intangible assets

	2018 £m
Cost	
1 January	**80**
Disposals	**(80)**
31 December	**–**
Accumulated amortisation	
1 January	**(11)**
Charge for the year	**(3)**
Disposals	**14**
31 December	**–**
NBV at 31 December	**–**

VI. Investments in subsidiaries

	2018 (i) £m	2017 (i) £m
Cost		
1 January	**2,286**	2,305
Employee share scheme net capital movement (note I)	**(28)**	(19)
31 December	**2,258**	2,286

(i) Employee share scheme movement is the net change in shares to be awarded under employee share schemes to employees of Group undertakings. Direct investments are held in Centrica Holdings Limited, Centrica Trading Limited and Centrica Beta Holdings Limited, all of which are incorporated in England. Related undertakings are listed in note S10 to the consolidated Group Financial Statements.

The Directors believe that the carrying value of the investments is supported by their realisable value.

VII. Deferred tax

	Retirement benefit obligation £m	Other £m	Total £m
1 January 2017	18	(5)	**13**
Charge to income	(8)	(1)	**(9)**
Reserves charge	(3)	(1)	**(4)**
31 December 2017	7	(7)	**–**
Credit/(charge) to income	8	(2)	**6**
Reserves charge	(25)	(1)	**(26)**
31 December 2018	**(10)**	**(10)**	**(20)**

Other deferred corporation tax liabilities primarily relate to other temporary differences. All deferred tax crystallises in over one year.

Notes to the Company Financial Statements (continued)

VIII. Trade and other receivables

	2018		2017	
31 December	Current (i) £m	Non-current (ii) £m	Current (i) £m	Non-current (ii) £m
Amounts owed by Group undertakings	**13,414**	**39**	11,476	1,067
Prepayments	**8**	**5**	5	8
	13,422	**44**	11,481	1,075

(i) The amounts receivable by the Company include £12,398 million (2017: £10,381 million) that bears interest at a quarterly rate determined by Group treasury and linked to the Group cost of funds. The quarterly rates ranged between 2.8% and 5.7% per annum during 2018 (2017: 3.0% and 4.7%). The other amounts receivable from Group undertakings are interest free. All amounts receivable from Group undertakings are unsecured and repayable on demand. Amounts receivable by the Company are stated net of provisions of £128 million (2017: £73 million).

(ii) The amounts receivable by the Company due after more than one year include £20 million (2017: £1,028 million) that bears interest at a quarterly rate determined by Group treasury and linked to the Group cost of funds. The quarterly rates ranged between 3.7% and 4.1% per annum during 2018 (2017: 4.6% and 7.4%). The other amounts receivable from Group undertakings are interest-free. All amounts receivable from Group undertakings are unsecured and repayable in two to three years.

IX. Derivative financial instruments

	2018			2017		
31 December	Current £m	Non-current £m	Total £m	Current £m	Non-current £m	Total £m
Derivative financial assets	**76**	**208**	**284**	90	300	390
Derivative financial liabilities	**(34)**	**(44)**	**(78)**	(43)	(57)	(100)

X. Financial instruments

(a) Determination of fair values

The Company's policy for the classification and valuation of financial instruments carried at fair value into one of the three hierarchy levels determined in accordance with IFRS 13 are consistent with those of the Group, as detailed in note S6 to the Group Financial Statements.

(b) Financial instruments carried at fair value

31 December	Level 1 £m	Level 2 £m	2018 Total £m	Level 1 £m	Level 2 £m	2017 Total £m
Financial assets						
Derivative financial assets held for trading:						
Foreign exchange derivatives	–	42	**42**	–	102	102
Derivative financial assets in hedge accounting relationships:						
Interest rate derivatives	–	59	**59**	–	128	128
Foreign exchange derivatives	–	183	**183**	–	160	160
Treasury gilts designated FVTPL	126	–	**126**	128	–	128
Debt instruments [(i)]	68	–	**68**	69	–	69
Equity instruments [(ii)]	22	–	**22**	25	–	25
Cash and cash equivalents [(iii)]	–	699	**699**	–	–	–
Total financial assets at fair value	**216**	**983**	**1,199**	222	390	612
Financial liabilities						
Derivative financial liabilities held for trading:						
Interest rate derivatives	–	(26)	**(26)**	–	(28)	(28)
Foreign exchange derivatives	–	(42)	**(42)**	–	(51)	(51)
Derivative financial liabilities in hedge accounting relationships:						
Interest rate derivatives	–	(10)	**(10)**	–	(6)	(6)
Foreign exchange derivatives	–	–	**–**	–	(15)	(15)
Total financial liabilities at fair value	–	**(78)**	**(78)**	–	(100)	(100)

(i) Debt instruments classified as FVTPL on adoption of IFRS 9 were classified as available-for-sale in prior periods.

(ii) The Company's equity instrument assets have been designated as FVOCI on adoption of IFRS 9. In prior periods similar items were classified as available-for-sale.

(iii) Certain cash and cash equivalents have been classified as FVTPL on adoption of IFRS 9. Included within cash and cash equivalents are money market funds amounting to £699 million.

XI. Securities

31 December	2018 £m	2017 £m
Treasury gilts designated at fair value through profit or loss	**126**	128
Debt instruments	**68**	69
Equity instruments	**22**	25
	216	222

£91 million (2017: £94 million) of investments were held in trust, on behalf of the Company, as security in respect of the Centrica Unfunded Pension Scheme (refer to note XVI).

XII. Cash and cash equivalents

31 December	2018 £m	2017 £m
Cash at bank and in hand	**14**	22
Money market funds [(i)]	**699**	2,278
	713	2,300

(i) Term deposits are presented as cash equivalents if they have a maturity of three months or less.

XIII. Trade and other payables

	2018		2017	
31 December	Current (i) £m	Non-current (ii) £m	Current (i) £m	Non-current (ii) £m
Amounts owed to Group undertakings	**(7,004)**	**(114)**	(6,458)	(89)
Capital payable	**(10)**	**(20)**	(8)	–
Other taxation and social security	**(1)**	**–**	(1)	–
Accruals and other creditors	**(34)**	**–**	(55)	–
	(7,049)	**(134)**	(6,522)	(89)

(i) The amounts payable by the Company include £7,004 million (2017: £5,838 million) that bears interest at a quarterly rate determined by Group treasury and linked to the Group cost of funds. The quarterly rates ranged between 2.8% and 5.7% per annum during 2018 (2017: 3.0% and 4.7%). Other amounts payable by the Company are interest free.

(ii) The amounts payable by the Company due after more than one year include £100 million (2017: £80 million) that bears interest at the prevailing LIBOR rate less 0.05%. These amounts payable are due in over five years. Other amounts payable by the Company are interest free.

XIV. Provisions for other liabilities and charges

Current	1 January 2018 £m	Released in the year £m	Utilised £m	Transfers £m	31 December 2018 £m
Restructuring	(1)	–	1	–	**–**
Other	(3)	1	3	(3)	**(2)**
	(4)	**1**	**4**	**(3)**	**(2)**

Non-current	1 January 2018 £m	Charged in the year £m	Utilised £m	Transfers (i) £m	31 December 2018 £m
Other	(3)	–	–	3	**–**
	(3)	**–**	**–**	**3**	**–**

Other provisions principally represent estimated liabilities for contractual settlements and National Insurance in respect of employee share scheme liabilities. The National Insurance provision is based on a share price of 134.9 pence at 31 December 2018 (2017: 137.3 pence).

XV. Bank overdrafts, loans and other borrowings

	2018		2017	
31 December	Current £m	Non-current £m	Current £m	Non-current £m
Bank loans and overdrafts	**(22)**	**(149)**	(12)	(138)
Bonds	**(90)**	**(4,072)**	(411)	(5,261)
Interest accruals	**(85)**	**–**	(120)	–
Finance leases	**(6)**	**(17)**	–	–
	(203)	**(4,238)**	(543)	(5,399)

Disclosures in respect of the Group's financial liabilities are provided in note 24 to the Group Financial Statements.

Notes to the Company Financial Statements (continued)

XVI. Pensions

(a) Summary of main schemes

The Company's employees participate in the following Group defined benefit pension schemes: Centrica Pension Plan (CPP), Centrica Pension Scheme (CPS) and Centrica Unfunded Pension Scheme. Its employees also participate in the defined contribution section of the Centrica Pension Scheme. Information on these schemes is provided in note 22 to the Group Financial Statements.

Together with the Centrica Engineers Pensions Scheme (CEPS), CPP and CPS form the significant majority of the Group's and Company's defined benefit obligation and are referred to below and in the Group Financial Statements as the 'Registered Pension Schemes'.

(b) Accounting assumptions, risks and sensitivity analysis

The accounting assumptions, risks and sensitivity analysis for the Registered Pension Schemes are provided in note 22 to the consolidated Group Financial Statements.

(c) Movements in the year

	2018		2017	
	Pension liabilities £m	**Pension assets £m**	Pension liabilities £m	Pension assets £m
1 January	**(1,082)**	**1,052**	(549)	463
Items included in the Company Income Statement:				
Current service cost	**(14)**	**–**	(10)	–
Past service cost	**(18)**	**–**	(7)	–
Interest on scheme liabilities	**(28)**	**–**	(15)	–
Expected return on scheme assets	**–**	**28**	–	14
Other movements:				
Actuarial (loss)/gain	**(255)**	**388**	(513)	529
Employer contributions	**–**	**25**	–	64
Benefits paid from schemes	**32**	**(32)**	18	(18)
Transfers	**(5)**	**–**	(6)	–
31 December	**(1,370)**	**1,461**	(1,082)	1,052

Presented in the Company Balance Sheet as:

31 December	**2018 £m**	2017 £m
Defined benefit pension assets	**154**	33
Defined benefit pension liabilities	**(63)**	(63)
	91	(30)

Of the pension schemes liabilities, £63 million (2017: £63 million) relates to the Centrica Unfunded Pension Scheme.

(d) Analysis of the actuarial losses recognised in reserves (note II)

Year ended 31 December	**2018 £m**	2017 £m
Actuarial gain (actual return less expected return on pension scheme assets)	**388**	529
Experience loss arising on the scheme liabilities	**(3)**	(2)
Changes in assumptions underlying the present value of the schemes' liabilities	**(252)**	(511)
Actuarial gain recognised in reserves before adjustment for taxation	**133**	16
Cumulative actuarial losses recognised in reserves at 1 January, before adjustment for taxation	**(101)**	(117)
Cumulative actuarial gains/(losses) recognised in reserves at 31 December, before adjustment for taxation	**32**	(101)

XVI. Pensions

(e) Defined benefit pension scheme contributions

Note 22 to the Group Financial Statements provides details of the triennial review carried out at 31 March 2015 in respect of the UK Registered Pension Schemes and the asset-backed contribution arrangements set up in 2012, 2013 and 2016. It also provides further details on agreed future pension scheme contributions and the status of the latest triennial review (based on 31 March 2018). Under IAS 19, the Company's contribution and trustee interest in the Scottish Limited Partnerships are recognised as scheme assets.

The Company estimates that it will pay £9 million of employer contributions during 2019 at an average rate of 28% of pensionable pay together with contributions via the salary sacrifice arrangement of £3 million.

(f) Pension scheme assets

	2018			2017		
31 December	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities	**1,991**	**351**	**2,342**	2,089	303	2,392
Corporate bonds	**1,118**	**–**	**1,118**	1,276	–	1,276
High-yield debt	**595**	**1,360**	**1,955**	280	1,450	1,730
Liability matching assets	**1,581**	**994**	**2,575**	1,663	952	2,615
Property	**–**	**395**	**395**	–	369	369
Cash pending investment	**102**	**–**	**102**	3	–	3
Asset-backed contribution assets	**–**	**802**	**802**	–	864	864
Group pension scheme assets [(i)]	**5,387**	**3,902**	**9,289**	5,311	3,938	9,249

	2018 £m	2017 £m
Company share of the above	**1,461**	1,052

(i) Total pension scheme assets for the UK pension schemes.

XVII. Commitments

At 31 December 2018, the Company had commitments of £135 million (2017: £49 million) relating to contracts for outsourced services and £2 million (2017: £3 million) of total non-cancellable minimum lease payments in respect of land and buildings. The Company has guaranteed annual minimum lease payments of £6 million (2017: £6 million) in respect of operating commitments of a subsidiary undertaking, expiring in more than five years. The Company's commitment in respect of its agreement with Cheniere is detailed in note 23 to the consolidated Group Financial Statements.

The Company enters into parent company guarantee arrangements and letters of credit in relation to its subsidiary undertakings. While the Company has assessed the likelihood of these guarantees being called, or letters of credit being drawn upon, as remote, an expected credit loss provision has been calculated in accordance with IFRS 9, and recognised on the Company's balance sheet.

XVIII. Related parties

During the year the Company accepted cash deposits on behalf of the Spirit Energy group of companies giving rise to a Trade and other payables balance of £532 million (2017: 121 million).

Gas and Liquids Reserves (Unaudited)

The Group's estimates of reserves of gas and liquids are reviewed as part of the full year reporting process and updated accordingly.

A number of factors affect the volumes of gas and liquids reserves, including the available reservoir data, commodity prices and future costs. Due to the inherent uncertainties and the limited nature of reservoir data, estimates of reserves are subject to change as additional information becomes available.

The Group discloses 2P gas and liquids reserves, representing the central estimate of future hydrocarbon recovery. Reserves for Centrica operated fields are estimated by in-house technical teams composed of geoscientists and reservoir engineers. Reserves for non-operated fields are estimated by the operator, but are subject to internal review and challenge.

As part of the internal control process related to reserves estimation, an assessment of the reserves, including the application of the reserves definitions is undertaken by an independent technical auditor. An annual reserves assessment has been carried out by Gaffney, Cline & Associates for the Group's global reserves. Reserves are estimated in accordance with a formal policy and procedure standard.

The Group has estimated 2P gas and liquids reserves in Europe.

The principal fields in Spirit Energy are Kvitebjørn, Statfjord, Hejre, Ivar Aasen, Cygnus, Maria, South and North Morecambe, Rhyl and Chiswick. The principal non-Spirit Energy field is Rough. The European reserves estimates are consistent with the guidelines and definitions of the Society of Petroleum Engineers, the Society of Petroleum Evaluation Engineers and the World Petroleum Council's Petroleum Resources Management System using accepted principles.

Estimated net 2P reserves of gas (billion cubic feet)	Spirit Energy (i)	Rough	**Total**
1 January 2018	879	142	**1,021**
Revisions of previous estimates (ii)	(48)	28	**(20)**
Disposals of reserves in place (iii)	(5)	–	**(5)**
Production (iv)	(128)	(67)	**(195)**
31 December 2018	698	103	**801**

Estimated net 2P reserves of liquids (million barrels)	Spirit Energy (i)	Rough	**Total**
1 January 2018	105	–	**105**
Revisions of previous estimates (ii)	(24)	–	**(24)**
Disposals of reserves in place (iii)	(1)	–	**(1)**
Production (iv)	(11)	–	**(11)**
31 December 2018	69	–	**69**

Estimated net 2P reserves (million barrels of oil equivalent)	Spirit Energy (i)	Rough	**Total**
31 December 2018 (v)	186	17	**203**

(i) Spirit Energy is a business that combined the Group's legacy Exploration & Production business with that of Bayerngas Norge AS in 2017, with the Group owning 69% of Spirit Energy. The movements represent Centrica's 69% interest.

(ii) Revision of previous estimates include those associated with North and South Morecambe, North Sea fields, Norway and the Rough reserves.

(iii) Reflects the disposal of interests in the Armada gas and liquid assets.

(iv) Represents total sales volumes of gas and oil produced from the Group's reserves.

(v) Includes the total of estimated gas and liquids reserves at 31 December 2018 in million barrels of oil equivalent.

Liquids reserves include oil, condensate and natural gas liquids.

Five Year Summary (Unaudited)

Year ended 31 December	2014 £m	2015 £m	2016 £m	2017 (restated) (i) £m	**2018** **£m**
Group revenue	29,408	27,971	27,102	28,035	**29,686**
Operating profit/(loss) before exceptional items and certain re-measurements:					
UK Home	737	880	810	819	**668**
Ireland	7	30	46	47	**44**
North America Home	118	77	93	114	**123**
Connected Home	(23)	(49)	(50)	(95)	**(85)**
UK Business	114	(19)	50	4	**40**
North America Business	20	246	221	71	**81**
Distributed Energy & Power	(17)	(32)	(26)	(53)	**(81)**
Energy Marketing & Trading	136	66	161	104	**54**
Central Power Generation	81	128	75	35	**27**
Exploration & Production	484	132	135	201	**521**
Adjusted operating profit – operating profit before exceptional items and certain re-measurements	1,657	1,459	1,515	1,247	**1,392**
Share of joint ventures' and associates' interest and taxation	(89)	(61)	(48)	(7)	**–**
	1,568	1,398	1,467	1,240	**1,392**
Exceptional items and certain re-measurements after taxation	(1,932)	(1,717)	777	(407)	**(416)**
Profit/(loss) attributable to owners of the parent	(1,012)	(747)	1,672	328	**183**
	Pence	Pence	Pence	Pence	**Pence**
Earnings per ordinary share	(20.2)	(14.9)	31.4	5.9	**3.3**
Adjusted earnings per ordinary share	18.0	17.2	16.8	12.5	**11.2**
Dividend per share declared in respect of the year	13.5	12.0	12.0	12.0	**12.0**

Assets and liabilities

31 December	2014 £m	2015 £m	2016 £m	2017 (restated) (i) £m	**2018** **£m**
Goodwill and other intangible assets	4,600	3,824	4,383	4,326	**4,456**
Other non-current assets	9,974	7,790	8,218	7,190	**7,435**
Net current assets/(liabilities)	(1,492)	(521)	1,220	1,705	**284**
Non-current liabilities	(10,011)	(9,718)	(11,173)	(9,789)	**(8,227)**
Net assets/(liabilities) of disposal groups held for sale	–	(33)	196	–	**–**
Net assets	3,071	1,342	2,844	3,432	**3,948**
Debt, net of cash, cash equivalents and securities:					
Net debt	(5,196)	(4,747)	(3,473)	(2,596)	**(2,656)**

Cash flows

Year ended 31 December	2014 £m	2015 £m	2016 £m	2017 £m	**2018** **£m**
Cash flow from operating activities before exceptional payments	1,342	2,278	2,669	2,016	**2,182**
Payments relating to exceptional charges	(125)	(81)	(273)	(176)	**(248)**
Net cash flow from investing activities	(651)	(611)	(803)	32	**(1,007)**
Cash flow before cash flow from financing activities	566	1,586	1,593	1,872	**927**

(i) Prior year results have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details. Earlier periods have not been restated for the effects of IFRS 15 and therefore the results are not presented on a comparable basis. Segmental results have also been restated to reflect the new operating structure of the Group, under which the segment formerly known as Centrica Storage is shown as part of Exploration & Production. See note 1 for further details.

Ofgem Consolidated Segmental Statement

Independent Auditor's Report to the Directors of Centrica plc and its Licensees

In our opinion the accompanying statement (the 'Consolidated Segmental Statement' or 'CSS') of Centrica plc and its Licensees for the year ended 31 December 2018 is prepared, in all material respects, in accordance with:

- the requirements of Ofgem's Standard Condition 19A of the Gas and Electricity Supply Licences and Standard Condition 16B of the Electricity Generation Licences established by the regulator Ofgem; and
- the basis of preparation on pages 229 to 231.

We have audited the Consolidated Segmental Statement of Centrica plc and its Licensees (as listed in footnote (i)) (the Group) for the year ended 31 December 2018 in accordance with the terms of our engagement letter dated 7 December 2018. The Consolidated Segmental Statement has been prepared by the Directors of Centrica plc and its Licensees based on the requirements of Ofgem's Standard Condition 19A and the Gas and Electricity Supply Licenses and Standard Condition 16B of the Electricity Generation Licences (together, the 'Licences') and the basis of preparation on pages 229 to 231.

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 CSS section of our report.

We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the CSS in the United Kingdom, including the Financial Reporting Council's (the 'FRC's') Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter – basis of accounting

We draw attention to pages 229 to 231 of the CSS which describes the basis of accounting. The CSS is prepared to assist the Company in complying with the requirements of Ofgem's Standard Condition 19A of the Gas and Electricity Supply Licences and Standard Condition 16B of the Electricity Generation Licences established by the Regulator Ofgem. The basis of preparation is not the same as segmental reporting under IFRS and/or statutory reporting. As a result, the CSS may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

- the Directors' use of the going concern basis of accounting in preparation of the CSS is not appropriate; or
- the Directors have not disclosed in the CSS any identified material uncertainties that may cast significant doubt about the Group's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the CSS is authorised for issue.

We have nothing to report in respect of these matters.

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 CSS and our auditor's report thereon. Our opinion on the CSS does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the CSS, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the CSS 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 CSS 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.

We have nothing to report in respect of these matters.

Responsibilities of the Directors

The Directors are responsible for the preparation of the CSS in accordance with the Licences and the basis of preparation on pages 229 to 231 and for such internal control as the Directors determine is necessary to enable the preparation of the CSS that are free from material misstatement, whether due to fraud or error.

In preparing the CSS, the Directors are responsible for assessing the Group'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 to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the CSS

Our objectives are to obtain reasonable assurance about whether the CSS 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 this CSS.

A further description of our responsibilities for the audit of the CSS is located on the Financial Reporting Council's website at: frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Independent Auditor’s Report to the Directors of Centrica plc and its Licensees

Use of this report

This report is made solely to the Company’s Directors, as a body, in accordance with our engagement letter dated 7 December 2018 and solely for the purpose of assisting the Directors in reporting on the CSS to the Regulator Ofgem. We permit this report to be displayed on the Centrica plc website www.centrica.com (see footnote (ii)) to enable the Directors to show they have addressed their governance responsibilities by obtaining an independent assurance report in connection with the CSS. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Directors as a body and Centrica plc, for our work or this report, or for the opinions we have formed. The materiality level we used in planning and performing our audit was £35 million.

The engagement partner on the audit resulting in this independent auditor’s report is Dean Cook.

Deloitte LLP
20 February 2019
London

(i) British Gas Trading Limited, Neas Energy Limited, Centrica Barry Limited, Centrica KPS Limited, Centrica PB Limited and Centrica KL Limited.

(ii) The maintenance and integrity of Centrica plc’s website is the responsibility of the Directors of Centrica plc; the work carried out by the auditors does not involve consideration of these matters and accordingly, the auditors accept no responsibility for any changes that may have occurred to the CSS since it was initially presented on the website.

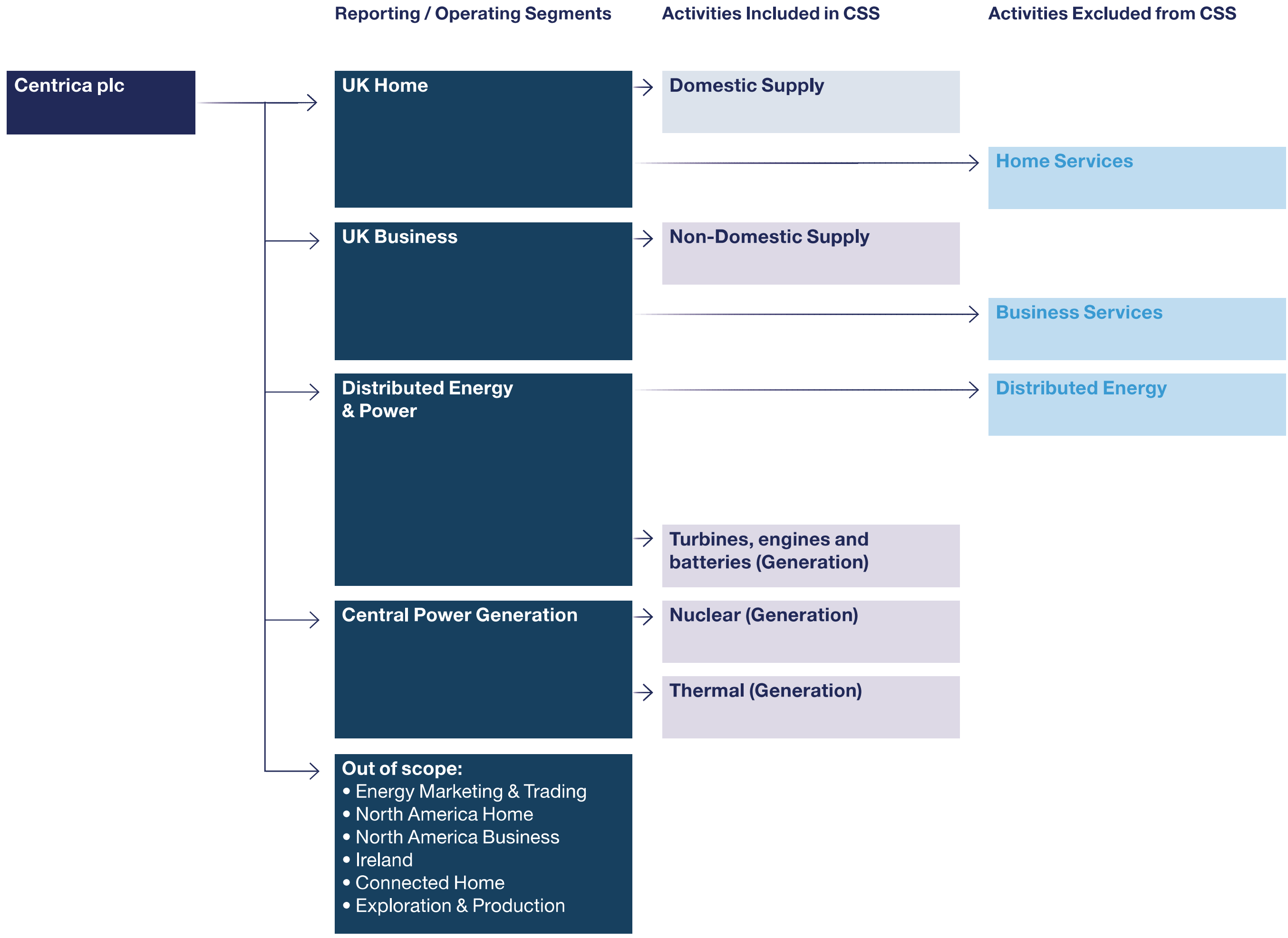
Introduction

The Ofgem Consolidated Segmental Statement (CSS) and required regulatory information on pages 224 to 233 are provided in order to comply with Standard Condition 16B of the Electricity Generation Licences and Standard Condition 19A of the Electricity and Gas Supply Licences.

The CSS and supporting information is prepared by the Directors in accordance with the Segmental Statements Guidelines issued by Ofgem. The CSS has been derived from and reconciled to the Centrica plc Annual Report and Accounts for the year ended 31 December 2018, which have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted by the European Union (EU) and therefore comply with Article 4 of the EU IAS Regulation and those parts of the Companies Act 2006 applicable to companies reporting under IFRS.

Centrica plc operational reporting structure

Below is a summary of the Centrica plc Group's (Group) operational reporting structure. The CSS financial data has been extracted from the Centrica plc Annual Report and Accounts 2018 operating segments rather than with reference to specific legal entities. Certain activities included in the Group's operating segments have been excluded from the Generation and Supply segments of the CSS on the basis they are non-licensed activities (for example Business Services and trading activity unrelated to Generation or Supply) as illustrated below. The Centrica plc Annual Report and Accounts 2018 provides operating segment results in note 4. A full reconciliation between the relevant operating segment results and those disclosed for 'Domestic Supply', 'Non-Domestic Supply' and 'Generation' in this CSS is provided at the end of the report.



Reporting / Operating Segments

Activities Included in CSS

Activities Excluded from CSS

Centrica plc

UK Home

Domestic Supply

Home Services

UK Business

Non-Domestic Supply

Business Services

Distributed Energy & Power

Distributed Energy

Turbines, engines and batteries (Generation)

Central Power Generation

Nuclear (Generation)

Thermal (Generation)

Out of scope:
- Energy Marketing & Trading
- North America Home
- North America Business
- Ireland
- Connected Home
- Exploration & Production

Centrica plc operational reporting structure

Centrica plc is the ultimate parent company of all 100% owned licensees. The individual supply and generation licences are held in legal entities whose licensed activities are reported as part of the Centrica plc Annual Report and Accounts 2018 within the operating segments shown above. The individual supply and generation licences held in subsidiaries, joint ventures or associates of Centrica plc during 2018 are detailed below:

Licensee	Licence	Ownership
British Gas Trading Limited	Supply	100%
Neas Energy Limited [(i)]	Supply	100%
Centrica Brigg Limited	Exempt	100%
Centrica Barry Limited	Generation	100%
Centrica KPS Limited	Generation	100%
Centrica Distributed Generation Limited (formerly Centrica RPS Limited)	Exempt	100%
Centrica PB Limited	Generation	100%
Centrica KL Limited	Generation	100%
EDF Energy Nuclear Generation Limited [(ii)]	Generation	20% Associate

(i) Neas Energy holds a supply licence but currently does not supply any UK customers.

(ii) The Group holds a 20% investment in Lake Acquisitions Limited which indirectly owns 100% of EDF Energy Nuclear Generation Limited.

Ofgem consolidated segmental statement

Year ended 31 December 2018

		Electricity Generation			Electricity Supply		Gas Supply		
	Unit	Nuclear	Thermal	Aggregate Generation Business	Domestic	Non-Domestic	Domestic	Non-Domestic	Aggregate Supply Business
Total revenue	**£m**	**540.8**	**236.7**	**777.5**	**3,054.9**	**1,393.4**	**3,860.3**	**431.2**	**8,739.8**
Sales of electricity & gas	£m	527.5	217.2	**744.7**	2,965.9	1,393.4	3,779.9	431.2	**8,570.4**
Other revenue	£m	13.3	19.5	**32.8**	89.0	–	80.4	–	**169.4**
Total operating costs	**£m**	**(353.0)**	**(262.4)**	**(615.4)**	**(2,958.9)**	**(1,372.6)**	**(3,383.5)**	**(398.0)**	**(8,113.0)**
Direct fuel costs	£m	(100.7)	(154.7)	**(255.4)**	(973.2)	(533.7)	(1,627.9)	(221.5)	**(3,356.3)**
Direct costs	£m	(212.5)	(103.1)	**(315.6)**	(1,432.8)	(688.1)	(1,063.9)	(107.9)	**(3,292.7)**
Network costs	£m	(42.8)	(5.4)	**(48.2)**	(751.2)	(339.6)	(948.6)	(87.5)	**(2,126.9)**
Environmental and social obligation costs	£m	–	(44.9)	**(44.9)**	(633.1)	(328.7)	(68.1)	–	**(1,029.9)**
Other direct costs	£m	(169.7)	(52.8)	**(222.5)**	(48.5)	(19.8)	(47.2)	(20.4)	**(135.9)**
Indirect costs	£m	(39.8)	(4.6)	**(44.4)**	(552.9)	(150.8)	(691.7)	(68.6)	**(1,464.0)**
WACOF/E/G	**£/MWh, P/th**	**(8.5)**	**(86.8)**	**N/A**	**(53.8)**	**(50.8)**	**(54.0)**	**(51.1)**	**N/A**
EBITDA	**£m**	**187.8**	**(25.7)**	**162.1**	**96.0**	**20.8**	**476.8**	**33.2**	**626.8**
DA	£m	(142.1)	(2.6)	**(144.7)**	(47.6)	(10.1)	(59.0)	(4.4)	**(121.1)**
EBIT	**£m**	**45.7**	**(28.3)**	**17.4**	**48.4**	**10.7**	**417.8**	**28.8**	**505.7**
Volume	TWh, MThms	11.8	2.3	N/A	18.1	10.5	3,015.6	433.3	N/A
Average customer numbers/sites	'000s	N/A	N/A	N/A	5,588.3	450.3	6,930.2	194.4	N/A

Supply EBIT	**margin**	**1.6%**	**0.8%**	**10.8%**	**6.7%**	**5.8%**
Supply PAT	**£m**	**39.4**	**8.6**	**337.6**	**23.9**	**409.5**
Supply PAT	**margin**	**1.3%**	**0.6%**	**8.7%**	**5.5%**	**4.7%**

2017 Summarised CSS

Year ended 31 December 2017

		Electricity Generation			Electricity Supply		Gas Supply		
	Unit	Nuclear	Thermal	Aggregate Generation Business	Domestic	Non-Domestic	Domestic	Non-Domestic	Aggregate Supply Business
Total revenue	£m	548.1	367.2	915.3	3,100.5	1,379.6	3,972.8	419.5	8,872.4
EBIT	£m	62.1	(38.2)	23.9	(46.6)	(16.1)	613.0	21.6	571.9

Supply EBIT	margin	(1.5)%	(1.2)%	15.4%	5.1%	6.4%
Supply PAT	£m	(38.5)	(12.0)	503.9	18.5	471.9
Supply PAT	margin	(1.2)%	(0.9)%	12.7%	4.4%	5.3%

Glossary of terms

- 'WACOF/E/G' is weighted average cost of fuel (nuclear), electricity (supply) and gas (thermal and supply) calculated by dividing direct fuel costs by volumes. For the Thermal sub-segment, the cost of carbon emissions is added to direct fuel costs before dividing by the generated volume.
- 'EBITDA' is earnings before interest, tax, depreciation and amortisation, and is calculated by subtracting total operating costs from revenue.
- 'DA' is depreciation and amortisation.
- 'EBIT' is earnings before interest and tax, and is calculated by subtracting total operating costs, depreciation and amortisation from total revenue.
- 'Supply EBIT margin' is a profit margin expressed as a percentage and calculated by dividing EBIT by total revenue and multiplying by 100 for the Supply segment.
- 'Supply PAT' is profit after tax but before interest and is calculated by subtracting Group adjusted tax from EBIT for the Supply segment.
- 'Supply PAT margin' is a profit margin expressed as a percentage and calculated by dividing Supply PAT by total revenue and multiplying by 100 for the Supply segment.
- 'Volume' for Supply is supplier volumes at the meter point (i.e. net of losses); Generation volume is the volume of power that can actually be sold in the wholesale market (i.e. generation volumes after losses up to the point where power is received under the Balancing and Settlement Code but before subsequent losses).
- 'Average customer numbers/sites' are calculated by adding average monthly customer numbers/sites (as defined in the basis of preparation) and dividing by 12.
- 'Scheduling decisions' means the decision to run individual generation units.
- 'Responsible for interactions with the Balancing Market' means interactions with the Balancing Mechanism in electricity.
- 'Interacts with wider market participants to buy/sell energy' means the business unit is responsible for interacting with wider market participants to buy/sell energy, not the entity responsible for the buy/sell decision itself, which falls under 'Responsible for implementing hedging policy/makes decisions to buy/sell energy'.
- 'Matches own generation with own supply' means where there is some internal matching of generation and supply before either generation or supply interact with the wider market.
- 'Forecasts total system demand' means forecasting total system electricity demand or total system gas demand.
- 'Forecasts customer demand' means forecasting the total demand of own supply customers.
- 'Bears shape risk after initial hedge until market allows full hedge' means the business unit which bears financial risk associated with hedges made before the market allows fully shaped hedging.
- 'Bears short-term risk for variance between demand and forecast' means the business unit which bears financial risk associated with too little or too much supply for own customer demand.

Business functions table

Year ended 31 December 2018 – analysis of business functions (i)

The table below illustrates where the business functions reside.

	Generation	Supply	Another part of business
Operates and maintains generation assets	✓	–	–
Responsible for scheduling decisions	✓	–	–
Responsible for interactions with the Balancing Market	✓	✓	–
Responsible for determining hedging policy	✓ (output)	✓ (demand)	–
Responsible for implementing hedging policy/makes decision to buy and sell energy	✓ (output)	✓ (demand)	–
Interacts with wider market participants to buy/sell energy	✓ (bilateral)	✓ (market and bilateral)	✓ (market and bilateral) (ii)
Holds unhedged positions (either short or long)	✓	✓	✓ (ii)
Procures fuel for generation	✓	–	–
Procures allowances for generation	✓	–	–
Holds volume risk on positions sold (either internal or external)	✓	✓	–
Matches own generation with own supply	–	–	✓ (ii) (iii)
Forecasts total system demand	–	✓	–
Forecasts wholesale price	✓ (iv)	✓ (iv)	✓ (iv)
Forecasts customer demand	–	✓	–
Determines retail pricing and marketing strategies	–	✓	–
Bears shape risk after initial hedge until market allows full hedge	✓	✓	–
Bears short-term risk for variance between demand and forecast	–	✓	–

(i) The table reflects the business functions that impact our UK segments.

(ii) The Group's Supply and Generation businesses are separately managed. Both businesses independently enter into commodity purchases and sales with the market via Centrica Energy Limited (CEL), our market-facing legal entity. CEL forms part of our non-licensed element of Energy Marketing & Trading function and also conducts trading for the purpose of making profits in its own right. The Supply segment is also able to enter into market trades directly as part of its within day balancing activities (as well as external bilateral contracts).

(iii) 'Matches own generation with own supply' is undertaken in 'Another part of the business' (by CEL at market referenced prices), outside of the Generation and Supply segments.

(iv) A separate team forecasts the wholesale price for the benefit and use of the entire Group. This team does not formally reside in any particular segment but their costs are recharged across the Group.

Key:

✓	Function resides and profit/loss recorded in segment.
–	Neither function nor profit/loss reside in segment.

Basis of preparation

The following notes provide a summary of the basis of preparation of the 2018 submission.

The Ofgem CSS segments our Supply and Generation activities and provides a measure of profitability, weighted average cost of fuel, and volumes, in order to increase energy market transparency for consumers and other stakeholders.

These statements have been prepared by the Directors of Centrica plc and its Licensees in accordance with Standard Condition 16B of the Electricity Generation Licences and Standard Condition 19A of the Electricity and Gas Supply Licences and the basis of preparation. Throughout the basis of preparation the first paragraph number relates to the generation licence and the second to the supply licence conditions respectively.

The financial data provided has been taken from the relevant licensee's and affiliate's financial information for the year ended 31 December 2018, included in the Centrica plc Annual Report and Accounts 2018 which have been prepared under IFRS as adopted by the EU (in accordance with paragraph 3/19A.3).

The CSS has been prepared on a going concern basis, as described in the Directors' Report and note 24(b) in the Centrica plc Annual Report and Accounts 2018.

For the Generation segment, we have included the financial results from all activities that relate to our generation licences. For clarity the following judgements have been made:

- the Group has a long-term tolling contract in respect of the Spalding power station, but does not specifically hold the generation licence. This arrangement provides the Group with the right to nominate 100% of the plant capacity in return for a mix of capacity payments and operating payments. We do not own the power station and the Group does not control the physical dispatch of the asset. This contractual arrangement has been accounted for as a finance lease (under IFRS) and therefore the financial result and volume has been included in the Thermal sub-segment, within the Generation segment;
- Brigg and Roosecote power stations had their licences revoked on 2 July 2015 (at their request) because they no longer required an electricity generation licence and are now exempt. Whilst we do not specifically hold a generation licence for these power stations, the financial results from these businesses have been included in the Thermal sub-segment and hence within the Generation segment;
- the Group has a 20% equity interest in Lake Acquisitions Limited, which owns eight nuclear power stations (through its indirect investment in EDF Energy Nuclear Generation Limited). Although we do not specifically hold a generation licence for any of the nuclear stations, our gross share of the financial result from this business (including any contractual arrangements) has been included in the Nuclear sub-segment and hence within the Generation segment; and
- where power is purchased from third parties (for example from wind farms, power stations or other bilateral arrangements) and we do not have an equity interest in, or a finance leasing arrangement (from an IFRS perspective) over the assets that generate this power, the result related to these activities is excluded from the Generation segment. In all cases, the Generation segment reports direct fuel costs and generation volumes on a consistent basis (if the purchase cost is a direct fuel cost, then the electricity generated is reported in volume).

In previous years, Generation sub-segments (for example Nuclear or Thermal) included the net revenue and results of trades undertaken by the Energy, Marketing & Trading business to optimise the results of underlying generation, as the trades were considered to be related to our generation. In the current year, this optimisation activity continues to be reported in the Generation sub-segments, but is now directly reported within the Distributed Energy & Power and Central Power Generation segments within the Centrica plc accounts.

Domestic Supply represents the revenue and associated costs in supplying gas and electricity to residential customers in the UK. Non-Domestic Supply represents the revenue and associated costs in supplying gas and electricity to business customers in the UK.

As a voluntary disclosure, to aid comparability, a summarised 2017 CSS with margins has been included within the report.

Revenues

Revenues, costs and profits of the Licensees have been defined below and prepared in compliance with the Group's accounting policies as detailed in notes 2, 3 and S2 of the Centrica plc Annual Report and Accounts 2018, except for joint ventures and associates which are presented gross (in accordance with paragraph 4(a)/19A.4(a)).

- Revenue from sales of electricity and gas for the Supply segment is recognised on the basis of gas and electricity supplied during the year to both domestic and non-domestic customers.
- Revenue from sales of electricity and gas includes an assessment of energy supplied to customers between the date of the last meter reading and the year end (unread). For the respective Supply segments this means electricity and gas sales. Revenue for domestic supply is after deducting dual fuel discounts where applicable, with the discount split evenly between electricity and gas. Government mandated social tariffs and discounts, such as the Warm Home Discount, and other social discounts, have also been deducted from Domestic Supply revenues directly, charged specifically to each fuel.
- Revenue from sales of electricity for the Generation segment is recognised on the basis of power supplied during the year. Power purchases and sales entered into to optimise the performance of each of the power Generation segments are presented net within revenue.

Basis of preparation

- The financial risks and rewards of owning and using the Group's power stations reside entirely in the reported Generation segment.
- Other respective segmental revenues not related to the sale of gas or power have been separately disclosed. Other revenues include:
  - £89.0 million (2017: £90.8 million) in Domestic Electricity Supply and £80.4 million (2017: £81.0 million) in Domestic Gas Supply primarily relating to New Housing Connections and smart meter installations;
  - £19.5 million (2017: £26.8 million) in Thermal principally relating to Supplementary Balancing Reserve (SBR), Short Term Operating Reserve (STOR), Triad revenue and Capacity Market income; and
  - £13.3 million (2017: £11.0 million) revenue in Nuclear not directly related to energy sales, such as capacity market income and provision of miscellaneous services.

Direct fuel costs

Direct fuel costs for both Generation and Supply include electricity, gas, nuclear fuel and imbalance costs.

- Energy supply to Domestic and Non-Domestic energy customers is procured at a market referenced price, through a combination of bilateral, over-the-counter (OTC) and exchange-based trades/contracts (see table below). Where energy is procured from within the Group it is also at a market referenced price on an OTC basis. The market referenced prices used are those prevailing at the time of procurement, which may differ from the price prevailing at the time of supply.
- Domestic and Non-Domestic fixed price products are hedged based upon anticipated demand at the start of the contract period. The majority of the gas and power for Non-Domestic energy and Domestic energy tariff products is purchased in advance (see table below).
- The exact Domestic and Non-Domestic purchasing patterns vary in response to the outlook for commodity markets and commercial factors.
- The Generation segment purchases gas and sells all of its energy at market referenced prices. Gas for turbines/engines is procured at market referenced prices through a combination of OTC and exchange-based trades/contracts. The cost to the power stations will reflect market referenced prices at the time of procurement, and so may differ from the price prevailing at the time of physical supply.

How we procure electricity, gas and carbon:

Long form bilateral contracts ('bilateral')	Individually negotiated contracts with non-standardised terms and conditions which may relate to size, duration or flexibility. Pricing is predominantly indexed to published market referenced prices, adjusted for transfer of risks, cost of carry and administration.
OTC	Broker supported market of standardised products, predominantly performed via screen-based trading. These transactions are between two parties, leaving both parties exposed to the other's default with no necessary intermediation of any exchange. An internal OTC price may be provided where market liquidity prevents external trading, with prices that are reflective of market conditions at the time of execution.
Exchange	Regulated electronic platform (notably ICE, APX, and N2EX) where standardised products are traded on exchange through the intermediary of the clearing house which becomes the counterparty to the trade. Membership of a clearing house is required which entails posting of cash or collateral as margin.

WACOF/WACOE/WACOG

- For Generation this represents the weighted average input cost of gas, carbon and nuclear fuel, shown as £/MWh, used by the Generation business. Gas for turbines/engines is procured at market referenced prices through a combination of OTC and exchange-based trades/contracts. The cost to the power stations will reflect market referenced prices at the time of procurement, and so may differ from the price prevailing at the time of physical supply.
- For Supply this covers the wholesale energy cost, the energy element of reconciliation by difference (RBD) costs and balancing and shaping costs incurred by the Supply licensees. Again, gas and electricity is procured at market referenced prices through a combination of bilateral, OTC and exchange-based trades/contracts. The cost for the Supply business will reflect market referenced prices at the time of procurement, and so may differ from the price prevailing at the time of physical supply. Where gas is procured using (predominantly indexed) bilateral contracts, the fuel cost is then allocated between Domestic and Non-Domestic Supply using annually updated fixed percentages based on the historical split of tariff book volumes. Gas and Electricity balancing costs are allocated between Domestic and Non-Domestic Supply based on their respective volumes multiplied by an appropriate industry referenced price (for example APX or SAP).
- For electricity Supply the weighted average cost of electricity is shown as £/MWh. For gas Supply, the weighted average cost of gas is shown as p/th.

Direct costs

Direct costs for Supply and Generation are broken down into network costs, environmental and social obligation costs and other direct costs.

- Network costs for Supply and Generation include transportation costs, BSUOS and the transport element of RBD costs. Supply transportation costs include transportation and LNG costs, including £38.3 million incurred by Gas Domestic Supply in 2018, which enables the segment to secure supply by giving the ability to bring gas into the UK from overseas (2017: £38.4 million).
- Environmental and social obligation costs for Domestic Supply include ROCs, FIT, ECO and UK Capacity Market costs. Non-Domestic Supply includes the cost of LECs, ROCs, FIT and UK Capacity Market costs. Within the Domestic and Non-Domestic segments, the costs of LECs, FIT, ROCs and UK Capacity Market costs are included within Electricity, and ECO is allocated between Electricity and Gas based on the relevant legislation. Environmental and social obligation costs for the Generation segment relate to EU ETS carbon emission costs and carbon tax.
- Other direct costs for Generation include employee and maintenance costs.

Basis of preparation

- Other direct costs for Supply include brokers' costs and sales commissions when the costs have given rise directly to revenue, that is, producing a sale. They also include Elexon and Xoserve market participation and wider Smart metering programme costs.

Indirect costs

Indirect costs for Supply and Generation include operating costs such as sales and marketing, bad debt costs, costs to serve, IT, HR, finance, property, staffing and billing and metering costs (including smart meter costs).

- Indirect costs for the Generation, Domestic and Non-Domestic Supply segments (including corporate and business unit recharges) are allocated based on relevant drivers, which include turnover, headcount, operating profit, net book value of fixed assets and proportionate use/benefit. For Supply, indirect costs (including corporate recharges but excluding bad debt costs) are primarily allocated between Electricity and Gas on the basis of customer numbers (Domestic) and sites (Non-Domestic). Bad debt costs are allocated between Electricity and Gas on the basis of actual bad debt cost by individual contract in the billing system (Domestic) and on the basis of revenues (Non-Domestic).

Other

- For Supply, depreciation and amortisation is allocated between Electricity and Gas on the basis of customer numbers (Domestic) and sites (Non-Domestic).
- For the purposes of Supply PAT, tax is allocated between Gas and Electricity within both Domestic and Non-Domestic Supply based on their relative proportions of EBIT. Note 4(c) of the Centrica plc Annual Report and Accounts 2018 provides details of the adjusted operating profit after tax of the relevant operating segments.
- For the Domestic Supply segment, customer numbers are stated based on the number of district meter point reference numbers (MPRNs) and meter point administration numbers (MPANs) in our billing system (for gas and electricity respectively), where it shows an active point of delivery and a meter installation. As a result, our customer numbers do not include those meter points where a meter may recently have been installed but the associated industry registration process has yet to complete, as the meter information will not be present in our billing system.
- For the Non-Domestic Supply segment, sites are based on the number of distinct MPRNs and MPANs in our billing system for gas and electricity respectively.

Transfer pricing for electricity, gas and generation licensees in accordance with paragraph 4(d)/19A.4(d)

There are no specific energy supply agreements between the Generation and Supply segments, other than the occasional immaterial arm's length arrangement between Thermal power stations and Supply (2018 revenue: £2 million).

The Group continues to ensure transfer pricing methodologies are appropriate and up to date. In order to meet this requirement, the Group ensured all transfer pricing and cost allocation methodologies were internally reviewed, updated and collated in a central repository.

Treatment of joint ventures and associates

The share of results of joint ventures and associates for the year ended 31 December 2018 principally arises from the Group's interests in the entities listed on page 225.

Under paragraph 5 of the Conditions, the information provided in the CSS includes our gross share of revenues, costs, profits and volumes of joint ventures and associates. In preparing the CSS, joint ventures and associates (which hold a UK generation licence or exemption) are accounted for as follows:

- our proportionate share of revenues of joint ventures and associates has been included within revenue;
- our proportionate share of the profit before tax of joint ventures and associates has been included within EBIT and EBITDA; and
- our proportionate share of the generation volumes of joint ventures and associates has been included within the generation volumes.

For each of the above items, our share of the income and expenses of the joint ventures or associates has been combined line-by-line within the relevant item of the CSS.

The Supply segment has investments in associates but because the investees' businesses do not relate to the sale of gas and electricity, the share of result (revenue of nil (2017: £0.1 million), EBIT of nil (2017: £0.1 million loss)) has been included net within indirect costs rather than gross, on a line-by-line basis.

Exceptional items and certain re-measurements

Restructuring costs, impairment charges and onerous provisions that have been identified as exceptional items, and mark-to-market adjustments in the Centrica plc Annual Report and Accounts 2018, are excluded from the CSS. For further details of excluded exceptional items and certain re-measurements see note 7 in the Centrica plc Annual Report and Accounts 2018.

The Nuclear sub-segment result includes a £9.7 million (2017: £17.0 million) profit from the revaluation of contingent valuation rights, related to the original acquisition of the Nuclear investment.

A reconciliation of the Segmental Statement revenue, EBIT, depreciation and Supply PAT to the 2018 audited Centrica plc Annual Report and Accounts has been included in accordance with paragraphs 4(b) & (c)/19A.4 (b) & (c) and 6/19A.6.

Reconciliation to Centrica plc Annual Report and Accounts

The reconciliation refers to the segmental analysis of the 2018 Centrica plc Annual Report and Accounts in note 4.

				Supply segment			
			Generation segment	Domestic		Non-Domestic	
				Electricity	Gas	Electricity	Gas
		Notes	2018	2018	2018	2018	2018
Revenue (£m)	**Centrica plc Annual Report and Accounts Segmental Analysis** (i)						
	UK Home/Business		–	8,391.5		1,857.0	
	Central Power Generation		744.0	–		–	
	Distributed Energy & Power (DE&P)		209.0	–		–	
	Less UK Home Services and UK Business Services elements	1	–	(1,476.3)		(32.4)	
			953.0	6,915.2		1,824.6	
	Gas and Electricity allocation	2		3,054.9	3,860.3	1,393.4	431.2
	Include share of JVs and associates	3	489.3	–	–	–	–
	Exclude intra-segment revenues	4	(477.5)	–	–	–	–
	Exclude non-Generation elements of DE&P revenues	5	(187.3)	–	–	–	–
	Ofgem Consolidated Segmental Statement		777.5	3,054.9	3,860.3	1,393.4	431.2
EBIT (£m)	**Centrica plc Annual Report and Accounts Segmental Analysis** (i)						
	UK Home/Business		–	668.0		40.5	
	Central Power Generation		27.5	–		–	
	Distributed Energy & Power (DE&P)		(81.4)	–		–	
	Less UK Home Services and UK Business Services elements	1	–	(201.8)		(1.0)	
			(53.9)	466.2		39.5	
	Gas and Electricity allocation	2	–	48.4	417.8	10.7	28.8
	Exclude non-Generation elements of DE&P EBIT	5	71.3	–	–	–	–
	Ofgem Consolidated Segmental Statement		17.4	48.4	417.8	10.7	28.8

Reconciliation to Centrica plc Annual Report and Accounts

				Supply segment			
			Generation segment	Domestic		Non-Domestic	
				Electricity	Gas	Electricity	Gas
		Notes	2018	2018	2018	2018	2018
Depreciation and amortisation (£m)	**Centrica plc Annual Report and Accounts Segmental Analysis** (i)						
	UK Home/Business		–	(147.0)		(14.7)	
	Distributed Energy & Power (DE&P)		(21.8)	–		–	
	Less UK Home Services and UK Business Services elements	1	–	40.4		0.2	
			(21.8)	(106.6)		(14.5)	
	Gas and Electricity allocation	2	–	(47.6)	(59.0)	(10.1)	(4.4)
	Include share of JVs and associates	3	(142.1)	–	–	–	–
	Exclude non-Generation elements of DE&P	5	19.2	–	–	–	–
	Ofgem Consolidated Segmental Statement		(144.7)	(47.6)	(59.0)	(10.1)	(4.4)
PAT (£m)	**Centrica plc Annual Report and Accounts Segmental Analysis** (i)						
	UK Home/Business			543.0		33.4	
	Less UK Home Services and UK Business Services elements	1		(166.0)		(0.9)	
				377.0		32.5	
	Gas and Electricity allocation	2		39.4	337.6	8.6	23.9
	Ofgem Consolidated Segmental Statement			39.4	337.6	8.6	23.9

(i) The table above reconciles the Generation segment to Central Power Generation and Distributed Energy & Power, the Domestic Supply segment to UK Home and the Non-Domestic Supply segment to UK Business in note 4 to the 2018 Centrica plc Annual Report and Accounts. Also included in note 4 is a reconciliation to the IFRS compliant statutory result reported by the Centrica plc Group.

Notes:

1. UK Home includes Home Services and UK Business includes Business Services which are non-licensed activities and have been deducted to reconcile these CSS numbers.
2. The share of Domestic and Non-Domestic Revenues, Operating Profit (EBIT), Depreciation (including amortisation) and PAT (adjusted operating profit after tax) as provided in note 4 of the Centrica plc Annual Report and Accounts 2018, has been split between Gas and Electricity.
3. £489.3 million of revenues relating to the Group's share of joint ventures and associates in Generation are included in the CSS for Nuclear revenues. £2.9 million of EBIT in the Generation segment relates to profit from joint ventures for Nuclear. Additionally, costs relating to the Group's share of joint ventures and associates: £100.7 million direct fuel costs, £212.5 million direct costs, £31.1 million indirect costs and £142.1 million depreciation and amortisation are included. The results of joint ventures and associates are shown separately in the Centrica plc Annual Report and Accounts 2018 in notes 6 and 14.
4. £477.5 million of intra-segment revenues between the joint ventures and associates and the Generation segment (included in the £489.3 million of joint venture and associate revenues) are excluded from the CSS.
5. Distributed Energy & Power includes non-generation operations. Revenues of £187.3 million, EBIT loss of £71.3 million and depreciation of £19.2 million have consequently been excluded from the Generation segment of the CSS.

Shareholder Information

General enquiries

Centrica's share register is administered and maintained by Equiniti, our Registrar, whom you can contact directly if you have any questions about your shareholding which are not answered here or on our website. You can contact Equiniti using the following details:

Address: Equiniti, Aspect House, Spencer Road,
Lancing, West Sussex BN99 6DA United Kingdom

Telephone: 0371 384 2985*

Outside the UK: +44 (0)121 415 7061

Textphone: 0371 384 2255*

Outside the UK: +44 (0)121 415 7028

Contact: help.shareview.co.uk

Website: equiniti.com

* Calls to an 03 number cost no more than a national rate call to an 01 or 02 number. Lines open 8.30 am to 5.30 pm, Monday to Friday (UK time), excluding public holidays in England and Wales.

When contacting Equiniti or registering via shareview.co.uk, you should have your shareholder reference number at hand. This can be found on your share certificate, dividend confirmation or any other correspondence you have received from Equiniti.

If you hold less than 2,500 shares you will be able to change your registered address or set up a dividend mandate instruction over the phone, however, for security reasons, if you hold more than 2,500 shares, you will need to put this in writing to Equiniti.

Together with Equiniti, we have introduced an electronic queries service to enable our shareholders to manage their investment at a convenient time. Details of this service can be found at shareview.co.uk

American Depositary Receipt (ADR)

We have an ADR programme, trading under the symbol CPYYY. Centrica's ratio is one ADR being equivalent to four ordinary shares. Further information is available on our website or please contact:

Address: BNY Mellon Shareowner Services, PO Box 505000,
Louisville, KY 40233-5000, USA

Email: shrrelations@cpshareownerservices.com

Website: mybnymdr.com

Telephone: +1 888 269 2377 (toll-free in the US)

Outside the US: +1 201 680 6825

Manage your shares online

We actively encourage our shareholders to receive communications via email and view documents electronically via our website, centrica.com. Receiving communications and Company documents electronically saves your Company money and reduces our environmental impact. If you sign up for electronic communications, you will receive an email to notify you that new shareholder documents are available to view online, including the Annual Report and Accounts and Annual Review, on the day they are published. You will also receive alerts to let you know that you can cast your Annual General Meeting (AGM) vote online. You can manage your shareholding online by registering at shareview.co.uk, a free online platform provided by Equiniti, which allows you to:

- view information about your shareholding;
- have your dividend paid into your bank account;
- update your personal details; and
- appoint a proxy for the AGM.

Centrica FlexiShare

FlexiShare is an easy way to hold Centrica shares without a share certificate. Your shares are held by a nominee company, Equiniti Financial Services Limited. However, you are able to attend and vote at general meetings as if the shares were held in your own name. Holding your shares in this way is free and gives you:

- low cost share dealing rates (full details of which are available on centrica.com, together with dealing charges);
- quicker settlement periods for buying and selling shares; and
- no paper share certificates to lose.

Centrica.com

The Shareholder Centre on our website contains a wide range of information including a dedicated investors section where you can find further information about shareholder services including:

- share price information;
- dividend history;
- ownership profile;
- the Scrip Dividend Programme;
- telephone and internet share dealing;
- downloadable shareholder forms; and
- taxation.

This Annual Report and Accounts can also be viewed online by visiting centrica.com/ar18

Dividends

Centrica dividends can be paid directly into your bank or building society account instead of being despatched to you by cheque. More information about the benefits of having dividends paid directly into your bank or building society account, and the mandate form to set this up, can be found in the Investors section of our website.

If you do not have a UK bank or building society account, Equiniti is able to pay dividends in local currencies in over 90 countries. For a small fee, you could have your dividends converted from sterling and paid into your designated bank account, usually within five days of the dividend being paid.

ShareGift

If you have a small number of shares and the dealing costs or the minimum fee make it uneconomical to sell them, it is possible to donate them to ShareGift, a registered charity, who provide a free service to enable you to dispose charitably of such shares. More information on this service can be found at sharegift.org or by calling +44 (0)20 7930 3737.

2019 calendar

9 May 2019	Ex-dividend date for 2018 final dividend
10 May 2019	Record date for 2018 final dividend
13 May 2019	Trading Update AGM
15 May 2019	Scrip reference share price set
6 June 2019	Deadline for the receipt of scrip election forms from shareholders
27 June 2019	Payment date for 2018 final dividend
30 July 2019	Half-year results announcement
10 October 2019	Ex-dividend date for 2019 interim dividend
11 October 2019	Record date for 2019 interim dividend
16 October 2019	Scrip reference share price set
31 October 2019	Deadline for the receipt of scrip election forms from shareholders
21 November 2019	Payment date for 2019 interim dividend

Additional Information – Explanatory Notes (Unaudited)

Definitions and reconciliation of adjusted performance measures

Centrica's 2018 consolidated Group Financial Statements include a number of non-GAAP measures. These measures are chosen as they provide additional useful information on business performance and underlying trends. They are also used to measure the Group's performance against its strategic financial framework. They are not however, defined terms under IFRS and may not be comparable with similarly titled measures reported by other companies. Where possible they have been reconciled to the statutory equivalents from the primary statements (Group Income Statement ('I/S'), Group Balance Sheet ('B/S'), Group Cash Flow Statement ('C/F')) or the notes to the Financial Statements.

Adjusted operating profit, adjusted earnings and adjusted operating cash flow have been defined and reconciled separately in notes 2, 4 and 10 to the consolidated Group Financial Statements where further explanation of the measures is given. Additional performance measures are used within this announcement to help explain the performance of the Group and these are defined and reconciled below.

Adjusted gross margin, Underlying adjusted gross margin and Controllable operating costs as a % of underlying adjusted gross margin

Adjusted gross margin is a metric used to assess the gross profit performance of the business without the distorting effects of certain re-measurements. Underlying adjusted gross margin removes the impact of foreign exchange rate movements and acquisitions and disposals, thereby providing a like-for-like measure.

Controllable operating costs are the Group's operating costs as adjusted to remove exceptional items and other non-controllable costs (e.g. depreciation, amortisation, smart metering, solar costs, dry hole costs, impairments and foreign exchange movements). Controllable operating costs as a % of underlying adjusted gross margin is a metric that assesses operating costs under the Group's control relative to its gross margin on a like-for-like basis.

Year ended 31 December		**2018** **£m**	2017 (restated) (i) £m
Gross profit	I/S	**4,053**	4,190
Certain re-measurements	7(c)	**200**	(153)
Adjusted gross margin		**4,253**	4,037
Foreign exchange movements [(ii)]		**–**	(38)
Acquisitions/disposals [(iii)]		**(178)**	(70)
Underlying adjusted gross margin		**4,075**	3,929

(i) Comparatives have been restated on adoption of IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.
(ii) The foreign exchange movement has been calculated by applying the average 2018 rate to the 2017 adjusted gross margin of entities with functional currencies other than GBP.
(iii) Removes the impact of acquisitions and disposals (2018: acquisition of Bayerngas in 2017, 2017: disposal of Canadian and Trinidadian E&P Assets in 2017).

Year ended 31 December		**2018** **£m**	2017 (restated) (i) £m
Operating costs	I/S	**3,047**	3,732
Exceptional items included in operating costs		**(183)**	(884)
Adjusted operating costs		**2,864**	2,848
Foreign exchange movements [(ii)]		**–**	(16)
Non-controllable costs		**(426)**	(389)
Controllable operating costs		**2,438**	2,443
Underlying adjusted gross margin	above	**4,075**	3,929
Controllable operating costs as a % of underlying adjusted gross margin		**60%**	62%

(i) Comparatives have been restated on adoption of IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.
(ii) The foreign exchange movement has been calculated by applying the average 2018 rate to the 2017 adjusted operating costs of entities with functional currencies other than GBP.

EBITDA

EBITDA is a business performance measure of operating profit, after adjusting for depreciation and amortisation. It provides a performance measure in its own right, and provides a bridge between the Income Statement and the Group's key cash metrics.

Year ended 31 December		2018 £m	2017 (restated) (i) £m	Change
Group operating profit	I/S	**987**	481	
Exceptional items included within Group Operating profit and certain re-measurements before taxation	I/S	**405**	759	
Share of profits of joint ventures and associates, net of interest and taxation	I/S	**(3)**	(51)	
Depreciation and impairments of property, plant and equipment	4(d)	**736**	673	
Amortisation, write-downs and impairments of intangibles	4(d)	**322**	271	
Impairment of joint ventures and associates	14(a)	**–**	4	
EBITDA		**2,447**	2,137	15%

(i) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

The table below shows how EBITDA reconciles to AOCF.

		2018 £m	2017 (restated) (i) £m
EBITDA		**2,447**	2,137
Profit on disposals (ii)		**(12)**	(20)
Decrease in provisions (ii)		**(154)**	(189)
Cash contributions to defined benefit pension schemes, net of service cost income statement charge (ii)		**(75)**	(104)
UK pension deficit payments	4(f)	**98**	131
Employee share scheme costs	C/F	**43**	47
Re-measurement of energy contracts (ii)		**41**	108
Net movement in working capital (ii)		**(47)**	139
Taxes paid	C/F	**(61)**	(102)
Dividends received from joint ventures and associates	C/F	**22**	58
Margin cash movements	4(f), 24(c)	**(57)**	(136)
Adjusted operating cash flow		**2,245**	2,069

(i) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.
(ii) These line items relate to business performance only and therefore differ from amounts quoted in the IFRS Financial Statements.

Underlying adjusted operating cash flow

Adjusted operating cash flow is the key metric used to assess the cash generating performance of the Group. Underlying adjusted operating cash flow makes further adjustments for foreign exchange and the commodity price movements that most impact the Group, which are outside its control, along with other material one-off items, to provide a comparable year on year measure of cash generation that more closely reflects business performance.

The calculation has been amended to make adjustments to rebase adjusted operating cash flow to reflect the prevailing foreign exchange and commodity prices in 2015 rather than those in the current reporting period. This provides a fixed reference point and prevents the need to continually recalculate the comparative periods and allows management to measure underlying adjusted operating cash flow growth since 2015, the announcement of the Strategic Review.

Year ended 31 December		2018 £m	2017 £m	Change	2016 £m
Adjusted operating cash flow	4(f)	**2,245**	2,069		2,686
Commodity price – E&P and Nuclear (i)		**(254)**	(100)		(46)
Foreign exchange movements (ii)		**(44)**	27		11
UK price caps impact		**46**	–		–
UK Business working capital impact		**–**	–		(357)
Underlying adjusted operating cash flow		**1,993**	1,996	(0.2%)	2,294

(i) The commodity price adjustment has been calculated by applying the average commodity price in 2015 to production and generation volumes for 2018, 2017 and 2016 net of taxation.
(ii) The foreign exchange movement has been calculated by applying the average 2015 rate to the 2018, 2017 and 2016 adjusted operating cash flow net of taxation of entities with functional currencies other than GBP.

Underlying adjusted operating cash flow is adjusted operating cash flow as defined in note 2 and reconciled in note 5(f). It has been adjusted for the impacts of commodity price movements on E&P and nuclear assets and foreign exchange movements. In 2018 the impact of the Safeguard Tariff and prepayment cap have been removed for the purposes of calculating underlying adjusted operating cash flow. In 2016 the measure was adjusted for one-off working capital movements in UK Business. This followed billing performance issues after the implementation of a new system in 2014, impacting the Group's ability to collect cash from customers and therefore its adjusted operating cash flow. As a consequence, in 2016 the working capital movement for UK Business was removed from underlying adjusted operating cash flow.

Definitions and reconciliation of adjusted performance measures

E&P free cash flow

Free cash flow is used as an additional cash flow metric for the E&P business due to its asset intensive nature. This metric provides a measure of the cash generating performance of the E&P business, taking account of its investment activity.

Year ended 31 December		2018 £m	2017 (restated) (i) £m	Change
E&P adjusted operating cash flow	4(f)	**963**	509	
Capital expenditure (including small acquisitions)		**(497)**	(480)	
Cash acquired through Spirit Energy transaction		**–**	78	
Net disposals		**17**	289	
Free cash flow		**483**	396	22%

(i) E&P cash flows in the table above have been restated to reflect new operating structure of the Group and therefore include cash flows arising from the segment formerly known as Centrica Storage.

E&P free cash flow is E&P's adjusted operating cash flow, as defined in note 2 and reconciled in note 4(f), less the business's capital expenditure and net disposals as defined above.

Return on average capital employed (ROACE)

Post-tax ROACE is one of the key performance metrics in the financial framework of the Group and represents the return the Group makes from capital employed in its wholly owned assets and its investments in joint ventures and associates.

Year ended 31 December		2018 £m	2017 (restated) (i) £m
Adjusted operating profit	4(c)	**1,392**	1,247
Share of joint ventures'/associates' interest and taxation	6(b)	**–**	(7)
Taxation on profit – business performance	I/S	**(461)**	(191)
Exclude taxation on interest – business performance		**(65)**	(81)
Return attributable to non-controlling interests	4(c)	**(29)**	(7)
Return		**837**	961
Net assets	B/S	**3,948**	3,432
Less: non-controlling interests	B/S	**(803)**	(729)
Less: net retirement benefit obligations	22(d)	**79**	886
Less: net cash and cash equivalents, bank overdrafts, loans and other borrowings, securities and cash posted/(received) as collateral	24(c)	**2,889**	2,862
Less: derivative financial instruments	19	**(112)**	(370)
Less: deferred tax liabilities associated with retirement benefit obligations and derivative financial instruments		**130**	18
Effect of averaging and other adjustments		**215**	780
Average capital employed		**6,346**	6,879
ROACE		**13%**	14%

(i) Comparatives have been restated on transition to IFRS 15: 'Revenue from contracts with customers'. See note 1 for further details.

Average capital employed takes the Group's net assets excluding net debt and deducts the net retirement benefit obligation and other derivative financial instruments (together with their associated deferred tax balances) because these represent unrealised positions and therefore do not reflect true capital employed. They are also subject to market driven volatility which could materially distort the ROACE calculation.

Responsible Business – Performance Measures

Non-financial key performance indicators (KPIs)

We engaged PricewaterhouseCoopers LLP (‘PwC’) to undertake a limited assurance engagement using the International Standard on Assurance Engagements (‘ISAE’) 3000 (Revised): ‘Assurance Engagements Other Than Audits or Reviews of Historical Financial Information’ and ISAE 3410: ‘Assurance Engagements on Greenhouse Gas Statements’. PwC have provided an unqualified opinion in relation to 19 KPIs that are identified with the symbol ‘†’ and feature on pages 8, 19, 59, 61, 63, 85, 97, 103 and below. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in terms of the risk assessment procedures which include an understanding of internal control, as well the procedures performed in response to the assessed risks. Non-financial performance and in particular, greenhouse gas quantification, is subject to more inherent limitations than financial information. It is important to read the responsible business information in the Annual Report and Accounts 2018 in the context of PwC’s full limited assurance opinion and Centrica’s Basis of Reporting, which are available at centrica.com/assurance.

Read more on Delivering our Responsible Business Ambitions on
Pages 56 to 65

Explore our wider non-financial performance at
centrica.com/datacentre

Customers

Metric	Unit	2018	2017	What’s next
Brand Net Promoter Score (i)	Number	**+10.0 † (ii)**	+9.4 (iii)	Continue to deliver new products and services that satisfy the changing needs of our customers
Complaints (i)	Per 100,000 customers	**3,453 (iv)**	3,739 (v)	Maintain focus on driving down complaints by improving customer service
Vulnerable households helped by UK Home initiatives	Number	**765,176**	741,721	Continue to ensure customers in vulnerable circumstances receive the help they need to stay warm, safe and debt-free
Customer safety incidents	Number	**26**	27	Deliver strong customer safety performance through our focus on training, tools and work practices

† Included in PwC’s limited assurance scope referred to above.

(i) Measure linked to Executive Director remuneration arrangements. See pages 97, 101 and 103 for more information.

(ii) Aggregated scores across UK Home +1†, North America Home +32†, Ireland +33†, Connected Home +38†, UK Business -12† and North America Business +28† and weighted by customer numbers.

(iii) Aggregated scores across UK Home +1, North America Home +33, Ireland +17, Connected Home +39, UK Business -11 and North America Business +33. Assured by PwC for the 2017 Annual Report. See centrica.com/responsibilitydownloads to view PwC’s assurance statement and Centrica’s Basis of Reporting.

(iv) Aggregated scores across UK Home Energy Supply 5,097 as reported to Ofgem, UK Home Services 2,827 as reported to the FCA, Ireland 6 as reported to CER, North America Home 83 as reported by various regulatory bodies, UK Business 4,149 as reported to Ofgem and North America Business 28 as reported by various regulatory bodies and weighted by customer accounts.

(v) Aggregated scores across UK Home Energy Supply 5,167, UK Home Services 2,170, Ireland 9, North America Home 85, UK Business 15,022 and North America Business 21.

Climate change

Metric	Unit	2018	2017	What's next
Total carbon emissions [i]	tCO_2e	**1,737,122 †**	4,103,348 [ii]	Continue to measure, report and reduce our own emissions through our 2030 Responsible Business Ambitions – in particular, to demonstrate we are on track with Paris goals and develop a path to net zero by 2050
Scope 1 emissions	tCO_2e	**1,698,388 †**	4,044,754 [ii]	
Scope 2 emissions	tCO_2e	**38,734 †**	58,594 [ii]	
Total carbon intensity by revenue	tCO_2e/£	**58**	146	Continue to analyse the impact of our strategy on decoupling carbon emissions from value creation
Internal carbon footprint (core property, fleet and travel)	tCO_2e	**67,726 (26% reduction against target)**	75,706 [ii] (18% reduction against target)	Our target to reduce our core internal carbon footprint by 20% by 2025 has been met early (baseline: 2015) We have extended our target to reduce emissions by 35% by 2025 (baseline: 2015)
Total customer carbon savings from measures installed	tCO_2e (cumulative since 2008)	**34,828,503 [iii]**	30,853,738 [iii]	Shift our focus towards delivering and reporting against our commitment to help our customers reduce emissions by 25%, by direct (3%) and indirect action as part of our 2030 Responsible Business Ambitions
Carbon intensity of Central Power Generation	gCO_2/kWh	**53 (88% reduction against target)**	125 (71% reduction against target)	Our target to reduce Central Power Generation carbon intensity by 55% by 2020 has been met early (baseline: 2008) The materiality of this KPI has reduced significantly following the strategic decision to move away from being a large-scale operator of generation assets and as a result, we will no longer report the metric as a lead indicator

† Included in PwC's limited assurance scope referred to on page 238.

(i) Comprises Scope 1 and Scope 2 emissions as defined by the Greenhouse Gas Protocol.

(ii) Assured by PwC for the 2017 Annual Report. See centrica.com/responsibilitydownloads to view PwC's assurance statement and Centrica's Basis of Reporting.

(iii) Comprises 93% mandatory and 7% voluntary initiatives. A growing share of carbon savings are generated by voluntary initiatives in recent years, reflected by over a third of savings arising from voluntary products and services in 2017 and 2018.

Colleagues

Metric	Unit	2018	2017	What's next
Total recordable injury frequency rate (TFRIFR)[i]	Per 200,000 hours worked	**1.02** †	0.98 [ii]	Drive down our TRIFR and LTIFR by growing our safety culture to deliver an incident-free workplace, enabled through targeted safety interventions in key performance areas as well as full implementation of our improved management system
Lost time injury frequency rate (LTIFR)	Per 200,000 hours worked	**0.49** †	0.36 [ii]	
Process safety incident frequency rate (Tier 1 and 2)[i]	Per 200,000 hours worked	**0.06** †	0.14 [ii]	Strengthen our understanding, monitoring and controls related to process safety
Significant process safety events (Tier 1)	Number	**1** †	0 [ii]	
Fatalities	Number	**0** †	0 [ii]	Maintain zero fatalities
Female and male employees	Percentage	**29 female** **71 male**	29 female [ii] 71 male [ii]	Empower people with future skills and build a more inclusive workforce, including through our 2030 Responsible Business Ambitions: • Inspire and develop 100,000 people with essential STEM skills • Attract and develop more women into STEM with 40% of STEM recruits to be female • Aspire for senior leadership to reflect the full diversity of our labour markets • Help 1 million carers stay in or return to work via active promotion of carer-positive policies
Female senior managers	Percentage	**28**	28 [ii]	
Employees from ethnic minorities	Percentage	**12** [iii]	12 [iv]	
Ethnic minority senior management	Percentage	**9** [iii]	9 [iv] [v]	
Gender pay gap [vi]	Percentage	**15 mean** **31 median**	12 mean 30 median	
Gender bonus gap [vii]	Percentage	**15 mean** **9 median**	22 mean [v] 8 median	
Employee engagement [i]	Percentage favourable	**55** †	52 [ii]	Our goal is to meet or exceed the external global benchmark which is currently 72%
Retention	Percentage	**85**	86 [ii]	Improve retention levels following the restructuring of our business through talent and capability enhancement as well as effective management and monitoring
Absence	Days per full-time employee	**13**	15 [ii]	Focus on reducing absence through good management practices, including proactive wellbeing intervention and preventative action

† Included in PwC's limited assurance scope referred to on page 238.

(i) Measure linked to Executive Director remuneration arrangements. See pages 97, 101 and 103 for more information.

(ii) Assured by PwC for the 2017 Annual Report. See centrica.com/responsibilitydownloads to view PwC's assurance statement and Centrica's Basis of Reporting.

(iii) Of this, 65% of employees disclosed their ethnicity.

(iv) Of this, 62% of employees disclosed their ethnicity.

(v) Restated following improvements in calculation.

(vi) Based on hourly rates of pay for all employees at full pay (including bonus and allowances) at the snapshot date of 5 April 2018. Read our Gender Pay Statement to find out more at centrica.com/genderpay.

(vii) Includes anyone receiving a bonus during the 12-month period leading up to the gender pay gap snapshot date.

Communities

Metric	Unit	2018	2017	What's next
Total community contributions	£ million	**149.2** [i]	155.5 [ii]	Make a meaningful difference in the communities where we live and work
Total employee volunteering hours [iii]	Number	**39,145**	57,340	Encourage our people to share their skills by volunteering over 100,000 days as part of our 2030 Responsible Business Ambitions
Average sustainability risk rating of assessed suppliers	Risk score out of 100 [iv]	**54** **(low risk)**	56 (low risk)	Continue to assess sustainability risks among our strategic and higher-risk suppliers
Ethical site inspections undertaken for higher risk suppliers	Number	**14**	18	
Employees committed to uphold Our Code	Percentage	**96**	– [v]	Ensure all of our people uphold Our Code as part of our commitment to doing the right thing and acting with integrity

(i) Comprises £139.8 million in mandatory and £6.2 million in voluntary contributions which largely support vulnerable customers, £2.7 million in charitable donations calculated using the London Benchmarking Group methodology (LBG) alongside £0.5 million in leverage which encompasses employee fundraising.

(ii) Comprises £141.9 million in mandatory and £9.3 million in voluntary contributions, £3.6 million in charitable donations alongside £0.7 million in leverage.

(iii) Includes volunteering during and outside business hours when enabled by Centrica.

(iv) A score near 100 is low risk. High-risk companies have limited or no tangible actions on sustainability, medium-risk companies take partial tangible action on selected sustainability issues, low-risk companies have a structured sustainability approach with policies and action to manage major sustainability issues while lowest-risk companies have strong sustainability credentials and reporting embedded across their business.

(v) Our Code was launched in January 2018, replacing our Business Principles. A directly comparable score for 2017 is not available.

Glossary

$	Refers to US dollars unless specified otherwise
2P reserves	Proven and probable reserves
AIP	Annual Incentive Plan
AOCF	Adjusted operating cash flow
bcf	Billion cubic feet
CCGT	Combined cycle gas turbine
CHP	Combined heat and power
CO_2e	Universal unit of measurement of the global warming potential (GWP) of greenhouse gases (GHG) expressed in terms of the GWP of one unit of CO_2e (carbon dioxide equivalent)
CPI	Consumer Price Index
CSS	Consolidated Segmental Statement
CUPS DB	Centrica Unfunded Pension Scheme defined benefit
CUPS DC	Centrica Unfunded Pension Scheme defined contribution
Data analytics	The process of examining data sets to draw conclusions and insights about the information they contain
DEEPAC	Direct Energy Employee Political Action Committee
EBITDA	Earnings before interest, tax, depreciation and amortisation
EBT	Employee Benefit Trust
EP	Economic profit
EPS	Earnings per share
EU ETS	European Union Emissions Trading Scheme
FCA	Financial Conduct Authority
FRS	Financial Reporting Standards
gCO_2/kWh	Grammes of carbon dioxide per kilowatt hour
GDPR	General Data Protection Regulation
GWh	Gigawatt hours
HVAC	Heating, ventilation and air conditioning
IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
IFTTT	If This Then That – Software platform that connects apps, devices and services from different developeres in order to trigger automations
KPI	Key performance indicators
kWh	Kilowatt hour
LNG	Liquefied natural gas
LTIFR	Lost time injury frequency rate

Machine learning	Artificial intelligence (AI) that provides computers with the ability to learn, without being programmed
mmboe	Million barrels of oil equivalent
mmth	Million therms
nm	Not measured
NPS	Net promoter score
PAC	Political Action Committee
PPA	Power purchase agreement
PP&E	Property, plant and equipment
ppt	Percentage point
PRA	Prudential Regulation Authority
Process safety	Process safety is concerned with the prevention of harm to people and the environment, or asset damage from major incidents such as fires, explosions and accidental releases of hazardous substances
PRT	Petroleum Revenue Tax
PWR	Pressurised water reactor
RBD	Reconciliation by difference
ROACE	Return on average capital employed
ROC	Renewable Obligation Certificate
RPI	Retail Price Index
RRJ	Risk Requiring Judgement
RRS	Risk Requiring Standards
SBR	Supplementary Balancing Reserve
SBU	Standard bundled unit
SHESEC	Safety, Health, Environment, Security and Ethics Committee
STOR	Short Term Operating Reserve
SVT	Standard variable tariff
tCO_2e	Tonnes of carbon dioxide equivalent
TRIFR	Total Recordable Injury Frequency Rate
TSR	Total shareholder return
TWh	Terawatt hour
VAT	Value added tax
VIU	Value in use
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute

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CENTRICA PLC

centrica.com

Registered office:
Millstream
Maidenhead Road
Windsor
Berkshire
SL4 5GD

Company registered
in England and Wales
No. 3033654